A Study of the Factors that Can Promote
and Improve Learning among Students in Mauritius

by
Sharmila Boodhoo

Submitted in partial fulfillment of the
Requirements for the degree of

MASTER OF EDUCATION IN EDUCATIONAL LEADERSHIP
VANCOUVER ISLAND UNIVERSITY

We accept the Thesis as conforming to the required standard.

Nicole Day, Faculty Supervisor
Faculty of Education
Vancouver Island University

Dr. David Paterson, Dean
Faculty of Education
Vancouver Island University

April 2018
Abstract

Education is facing numerous and complex problems in this constantly evolving world. This research study sought feedback from principals and teachers to discover the most important factors that can promote and improve learning in this new era. The study conducted was a mixed method, online survey involving 8 principals and 29 teachers from public high schools in Mauritius. The survey was designed to collect quantitative and qualitative data from the perspectives, views and experiences of principals and teachers. The findings revealed the most important factors to promote and improve learning as: (a) teacher effectiveness, (b) teacher leadership, (c) personalized learning, (d) motivation, and (e) instructional and transformational leadership. These results aligned with the literature review and confirmed the contribution the findings can make to the Mauritian education system. Based on these findings, suggestions for future research is also included.
Dedication

In dedication to my husband, Maneesh, who is my source of inspiration and strength. I offer my thanks to him, who put his profession on hold so that I could accomplish my dream. I am thankful to the diligent work of my devoted parents. This work is also dedicated to my little son Moksh.
Acknowledgements

I would like to seize this opportunity to thank everyone who has supported and guided me directly or indirectly throughout my graduate studies and the research process.

Foremost, I have no words to express my sincere thanks to my supervisor, Nicole Day for her valuable guidance, constant encouragement and unconditional support throughout this research study. I acknowledge the pertinent criticism, meticulous suggestions and outstanding hospitality extended to me during the planning and development of this research work.

I am grateful to the Faculty of Education, especially Dr. Sharon Wahl and Dr. Rachel Moll for making it possible for me to study at Vancouver Island University. I would like to express my very great appreciation to all my inspiring professors Dr John Phipps, Dr Sean Toal, Dr Nadine Cruickshanks, Dr Scott Priestman, and Dr Jim Parsons for their professional guidance, dedication, passion, and enthusiastic encouragement in this journey.

Besides my professors, I also owe my faithful gratitude to Morag Williamson for her aspiring guidance in writing and editing my thesis. She cared so much about my work and always responded to me promptly. My sincere thanks go to all the principals and teachers of Mauritius who participated in completing the surveys. Without their passionate contribution, the study could not have been successfully conducted.

I would like to thank my fellow classmates for their sincere teamwork and providing a friendly atmosphere during the course.

Finally, I would express my very profound gratitude to my parents for their moral support, blessings, love, and sacrifices for educating and preparing me for my future. Special thanks to my beloved husband and son who always strengthened my morale by standing by me in all circumstances.
## Table of Contents

Abstract ........................................................................................................................................2

Dedication .................................................................................................................................3

Acknowledgements ..................................................................................................................4

Table of Contents ....................................................................................................................5

List of Tables ...........................................................................................................................8

List of Figures ..........................................................................................................................9

Chapter One: Introduction ......................................................................................................10

  Purpose of the Study .............................................................................................................10
  Justification of the Study ........................................................................................................11
  Research Questions ...............................................................................................................14
  Definitions of Terms ..............................................................................................................15
  Brief Overview of the Study .................................................................................................16

Chapter Two: Literature Review ............................................................................................18

  Historical Context .................................................................................................................18
  Purpose of the Literature Review ..........................................................................................19
  Article Reviews .......................................................................................................................19

  Leadership .............................................................................................................................19
  School Culture ......................................................................................................................26
  Structure of the School ..........................................................................................................35
  Teacher Attributes ...............................................................................................................38
  Conclusion .............................................................................................................................42

Chapter Three: Methodology .................................................................................................44

  Research Design ...................................................................................................................44
### List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1.1</td>
<td>Number of students enrolled for the last three years in different grades</td>
<td>13</td>
</tr>
<tr>
<td>Table 1.2</td>
<td>Pass rate for the year 2014 to 2016 for different grades levels</td>
<td>13</td>
</tr>
<tr>
<td>Table 4.1</td>
<td>Responses from principals and teachers</td>
<td>54</td>
</tr>
<tr>
<td>Table 4.2</td>
<td>Overview of the Mauritian Education system</td>
<td>56</td>
</tr>
<tr>
<td>Table 4.3</td>
<td>Percentage rate of cohort entering form 1 and successfully completing</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Higher School Certificate</td>
<td></td>
</tr>
<tr>
<td>Table 4.4</td>
<td>Measures that have been taken and strategies to be introduced to</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>improve academic achievement</td>
<td></td>
</tr>
<tr>
<td>Table 4.5</td>
<td>Strategies to keep abreast with the latest technologies in the management</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>of the school to ensure improvement and promotion of learning</td>
<td></td>
</tr>
<tr>
<td>Table 4.6</td>
<td>Perspectives about teachers as an agent of change in the education system</td>
<td>63</td>
</tr>
<tr>
<td>Table 4.7</td>
<td>Teachers’ views on personalized learning based on students’ mindsets</td>
<td>68</td>
</tr>
<tr>
<td>Table 4.8</td>
<td>Effective strategies of ensuring each student is fully engaged and motivated</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>in the school</td>
<td></td>
</tr>
<tr>
<td>Table 4.9</td>
<td>Factors that can promote and improve learning among students</td>
<td>78</td>
</tr>
<tr>
<td>Table 4.10</td>
<td>Factors for promoting and improving learning</td>
<td>79</td>
</tr>
</tbody>
</table>
List of Figures

Figure 4.1  Response rate of survey .................................................................54
Figure 4.2  The rate of dissatisfaction with students achievement .........................57
Figure 4.3  The rate at which principals were engaged in leadership activities ..........62
Figure 4.4  Effects of school culture on student learning .......................................65
Figure 4.5  Rate at which principals were engaged in the school activities .................66
Figure 4.6  How teachers provide a happy environment for better learning ..............67
Figure 4.7  Rate at which students use laptops and teachers use creativity and innovative thinking in the classroom ............................................................68
Figure 4.8  Survey responses related to types of assessment used to promote and improve learning ..................................................................................70
Figure 4.9  Survey responses corresponding to feedback ........................................71
Figure 4.10 Learning models used by teachers .......................................................72
Figure 4.11 Survey responses regarding curriculum ...............................................72
Figure 4.12 Qualitative responses regarding growth mindset ..................................73
Figure 4.13 Rate at which teachers are engaged in professional development ............73
Figure 4.14 Qualitative analysis regarding professional development of teachers .......74
Figure 4.15 Factors that can improve and promote learning among students ............75
Figure 4.16 Qualitative analysis regarding professional development of teachers .......76
Figure 4.17 Methods of developing growth mindsets .............................................77
Figure 4.18 Factors that can promote and improve learning among students ..........77
Chapter One: Introduction

If a child can’t learn the way we teach, maybe we should teach the way they learn.

– Ignacio Estrada

Learning has moved to centre stage (Dumont, Istance, & Benavides, 2010), and the world has transformed into a knowledge-based society. Thus, it is essential for students to receive a high-quality education. According to Bransford, Brown, and Cocking (2000), the science of learning “underscores the importance of rethinking what is taught, how it is taught, and how learning is assessed” (p. 13). With the rapid development of information and communication technology, there have been investments in computers and digital connections; however, learning has not been changed much. They have given too much importance to technology but little to learning opportunities (Dumont et al., 2010). Schools should become environments of learning where students become lifelong learners so that they can succeed in the 21st century. To encourage successful learning, teachers need to understand learning differently. In the words of Lieberman and Mace (2008),

Learning rather than being solely individual (as we have taken it to be) is actually also social. It happens through experience and practice. In plain terms—people learn from and with others in particular ways. They learn through practice (learning as doing), through meaning (learning as intentional), through community (learning as participating and being with others), and through identity (learning as changing who we are). (p. 3)

Purpose of the Study

In this rapidly evolving world, schools should adopt a new approach to teaching and learning. For students to thrive in this 21st century and to become the leaders of tomorrow, their learning should be innovative. In Mauritius, reform is being implemented in the education
system with a view toward improving the quality of schools and raising students’ achievements. These reforms include curriculum change, remedial education, a review of assessment, and continuous professional development for teachers (The Nine Year Continuous Basic Education, 2015). However, due to the complexity of this reform, there still exist some challenges for improving and promoting learning to attain student success. It is far more difficult to restructure the main activities and dynamics of learning in the classroom. Much remains to be learned about principals’ and teachers’ views and experiences.

As a teacher, I embrace a position of trust and good moral character. I believe that every student should be treated as an individual, and teachers who know their students well personally are better able to choose the proper educational methods for instruction and can relate the material to the students’ interests and experience. I am responsible to teach about life, values, and how to learn in a safe learning environment. Furthermore, I am expected to meet society’s requirements concerning the achievement of the goals of teaching and learning.

The aim of this study is to survey principals and teachers from public high schools in Mauritius to collect data to find the factors that promote and improve learning. My endeavor is to challenge the status quo to bring about positive change in my home country, Mauritius, and to contribute to the development of teaching and learning, thus improving student achievement.

**Justification of the Study**

According to the implementation of educational reforms in Mauritius (World Bank, n.d.), there are severe shortcomings in the Mauritian education system that need to be taken into consideration for the betterment of the students. The number of students leaving the education system at different stages shows that students face serious difficulties in improving through the present educational system. There are unacceptable numbers of drop-outs, and students are
failing due to the “one size fits all” education system. School completion is low. However, those who do complete their schooling are not ready for the workforce. Considering the issues that the Mauritian education system is facing, I am interested in knowing the factors that promote and improve learning among students in the Mauritian context.

I care about promoting and improving student learning because, from my personal experience, the current education system in Mauritius is not preparing youngsters to face the outside world. Mauritius is using the “banking” concept of education. Students are learning routines and content just to pass the examinations. Freire (2000) commented, “Education is suffering from narration sickness” (p. 71). This applies to Mauritian students, as they spend most of their time on rote learning and not enough time learning how to innovate. The implicit “mind-as-container metaphor” (Bereiter, 2002, p. 20) of schools does not reflect the productive, creative side of working with knowledge. Students are unable to develop their personalities. They are not encouraged to take activities of their choice because they are limited to the curriculum. The teacher simply talks on and on—and the students must sit patiently and listen like little receptacles of knowledge. The learning is limited solely to what the teacher knows and can relate. Thus, the students are not motivated to learn, and because they find school boring, the dropout rates and students failures are also high in Mauritius. I think it is imperative to have an education system that promotes creativity and adaptability.

From the Mauritius education statistics for 2017, the number of students enrolled for the last three years are shown in the table below:
In 2015, there were 18,191 students enrolled in grade 6 and only 16,003 were promoted to grade 7 in 2016. There was a dropout of 2,188 students. As evident from the table, there was a dropout rate of around 54% of students enrolled in grade 11 in 2015 compared to the number of those who were enrolled in grade 12 in 2016. Approximately the same percentage of dropouts occurred from 2016 to 2017 for grade 11 to grade 12. Furthermore, the pass rate is discouraging, as Table 2 illustrates:

Table 1.2

Pass rate for the year 2014 to 2016 for different grades levels

<table>
<thead>
<tr>
<th>GRADE</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 6</td>
<td>69.4%</td>
<td>70.3%</td>
<td>69.8%</td>
<td>69.8%</td>
</tr>
<tr>
<td>Grade 11</td>
<td>73.4%</td>
<td>72.5%</td>
<td>72.0%</td>
<td>72.6%</td>
</tr>
<tr>
<td>Grade 13</td>
<td>75.4%</td>
<td>75.3%</td>
<td>75.5%</td>
<td>75.4%</td>
</tr>
</tbody>
</table>
In 2016, out of 20,060 students, only 15,675 took part in the grade 11 examination, of whom only 11,365 were successful. Comparison with the 2015 results shows that the overall pass rate decreased from 72.5% to 72.0%. So, considering these issues that the education system is facing, it is important to examine this situation.

Leaders should make sure that students are ready to thrive in this rapidly changing world. What students learn in school must continue to be relevant on an ongoing basis well into their adult lives. Students receive numerous opportunities and valuable capacity when they learn how to learn and how to figure things out, whereas learning facts by rote is a dead end. When students learn facts, they may or may not remember them, and the facts do not lead to anything useful or exploratory. With this rapid advancement in technology, we need students to learn how to be independent critical thinkers, how to incorporate new information into what they do, and how to explore the world around them and learn from it. Therefore, I am interested in knowing the factors that can promote and improve learning among students in the Mauritian context in the face of the drawbacks the students are encountering.

**Research Questions**

In attempting to investigate the factors that improve and promote learning among students in Mauritius, the study raises the following questions:

a. What are the issues of the education system and how are the schools keeping abreast with the 21st-century demands?

b. How does leadership affect student learning?

c. What are the effects of school culture (learning environment, professional learning community, motivation, and personalized learning) on student learning?

d. What are the best teaching practices that can promote student achievement?
e. Do teacher attributes play a role in the promotion and improvement of learning?

f. What are the factors teachers and principals are aware of in the promotion and improvement of learning?

**Definition of Terms**

The following terms are defined to promote better understanding and will be consistently used throughout the study:

*Learning*: Something is learning if and only if it is a “process by which relatively permanent changes occur in behavioral potential as a result of experience” (Anderson, 1995, pp. 4-5). A further description of learning by Rossum and Hamer (2010) is:

- Learning as the increase of knowledge . . .
- Learning as memorizing . . .
- Learning as the acquisition of facts, procedures, which can be retained and/or utilized in practice . . .
- Learning as the abstraction of meaning . . .
- Learning as an interpretative process aimed at the understanding of reality. (p. 2)

*Reform*: Reform means improving educational equity to identify disparities in educational performance or results, and then introducing modifications intended to address or compensate for those inequities, for example by increasing funding levels, redesigning school programs, teaching students in different ways, or providing comparatively more educational services and academic support to students with greater needs (Twenty-first-Century Skills, 2016).

*The banking concept*: The “banking concept,” as termed by Freire (2010), is essentially an act that hinders the intellectual growth of students by turning them into, figuratively speaking, passive “receptors” and “collectors” of information that has no real connection to their lives.

*One size fits all*: A “one size fits all” education system relates to policies or approaches that are standard and not tailored to individual needs (Collins English Dictionary, 2018).
21st-century learning: According to Berry (2010), 21st-century learning means that students master content while producing, synthesizing, and evaluating information from a wide variety of subjects and sources with an understanding of and respect for diverse cultures. Students demonstrate the three Rs (reading, writing, and arithmetic), but also the three Cs: Creativity, communication, and collaboration. They demonstrate digital literacy as well as civic responsibility. Virtual tools and open-source software create borderless learning for students of all ages, anytime and anywhere.

School improvement: Hopkins (1998) defined school improvement as “a distinct approach to educational change that enhances student outcomes as well as strengthening the school’s capacity for managing change” (p. 1036).

School culture: Leithwood, Jantzi, and Steinbach (1999) defined school culture as “the norms, beliefs, values, and assumptions shared widely by the members of the organization” (p. 82).

Shared vision: Leithwood et al. (1999) defined shared vision as “a strong, widespread commitment to a statement of directions for a school” (p. 56).

Brief Overview of the Study

The main objective of this study is to find the factors that can improve and promote learning among students in Mauritius. Relevant data from principals and teachers of high schools in Mauritius will be gathered through online surveys. The findings regarding the promotion and improvement of learning among students will then be analyzed. I believe the findings of the research will contribute to my understanding of this subject and benefit the education system in Mauritius.
This introductory chapter has provided the impetus for the research study. It includes the purpose and justification of why I have chosen to carry out this study and how it can be beneficial to Mauritian students. Chapter One has also included the questions that guide the study and some definitions of the terms used throughout the research. Chapter Two will begin with a brief historical review on reform in Mauritius, followed by reviews of the scholarly literature on the factors that can improve and promote learning. Various themes such as leadership, school culture, structure of school and teacher attributes, are reviewed. Finally, an analysis of the literature review is conducted, along with a connection to my research question. Chapter Three describes the research methodology used to conduct the study. The chapter will outline the research strategy, the research method, the approach used, and the methods of data collection. Chapter Four provides the findings and results related to each of the research questions. Chapter Five presents a brief summary of the research question being conducted, the method used, and the results obtained. The results are discussed and conclusions are made about the research. It also includes the limitations of the study and suggestions for further research. Finally, the limitations for policy and practice are provided.
Chapter Two: Literature Review

This chapter begins with a discussion of the historical context and the purpose of doing this literature review. It presents various relevant literatures to support my research title, *Factors that can Improve and Promote Learning among Students*. Because my topic, which explores how to promote and improve learning, is a broad subject with many aspects to consider, this literature review will cover a range of themes, including: leadership, school culture, structure of school and teacher attributes. The review gives a summary of the literature by providing definitions, best practices, limitations, and recommendations. It also incorporates an analysis of the literature review.

**Historical Context**

The mission of the Ministry of Education in Mauritius is:

To ensure learning opportunities are accessible to all, provide learners with values and skills to further their personal growth, enhance their critical and exploratory thinking, and encourage them to innovate and to adapt to changes in an increasingly globalized environment. (Ministry of Education and Human Resources, 2014, p.11)

Fulfilling this mission has been a challenging endeavor for the government. The education system has faced numerous difficulties and limitations in the past in implementing the reforms. The lack of human resources was one of the major problems. Another important factor was communication; the policymakers could not properly communicate the purpose and rationale for the planned reforms (World Bank, n.d.). Furthermore, politics have played a major role in the education system. Whenever there is a change in political leadership, the implementation process for the reform is slowed down. However, as Robinson and Aronica (2009) commented, “Education doesn’t need to be reformed, it needs to be transformed” (p.154).
Robinson believed that education should be personalized instead of standardized. Students should be placed in an environment where they want to learn and discover their true passion.

**Purpose of the Literature Review**

The purpose of the literature review is to conduct a synthesis of research-based information and issues on the factors that can promote and improve learning from various articles in a broader perspective, highlighting key topics related to the promotion and improvement of learning in Mauritius. For convenience, the literature review centers on key themes of (a) leadership, (b) school culture, (c) structure of school, and (d) teacher attributes.

**Article Reviews**

**Leadership.**

*Instructional and transformational leadership.* “Leadership is second only to classroom instruction among school-related factors that contribute to what children learn in school” (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004, p.7). Good leadership is essential for successful schools. Leadership can contribute to the improvement of student learning by shaping the conditions and climate in which teaching and learning occur (Pont, Nusche, & Moorman, 2008). Likewise, Hallinger & Heck (1998) and Marzano, Waters, and McNulty (2005) argued that some of the leadership practices are related with measurable improvements in student learning.

New forms of school leadership should be developed to cater for the needs of the current and future educational environments, as the educational expectations of schools have changed dramatically. According to the Harvard Advanced Leadership Initiative (2014), leaders should do the following in order to solve the complex, numerous, and significant problems facing the education system:
a. Create a vision to bring about a drastic change in education.

b. Engage students and teachers to take ownership of change.

c. Invest in professional development for teachers.

d. Build networks for connecting people and sharing information.

The most important educational leaders are the principals, and their leadership is inextricably linked to student performance (Center for Comprehensive School Reform and Improvement, 2005). In addition, Fullan (2003) and Møller (2009) concurred that the main source of leadership in a school is the principal, for the principal’s educational values, decision-making strategies, and leadership practices outline the shape of every school.

Slater and Nelson (2013) commented, “It is a widely held perception that the principalship has changed dramatically” (p. 100). It is virtually impossible to meet the demands of the modern principalship. The roles and responsibilities of a principal have expanded and become more complex. Principals do not simply focus on managing the school, but also on leading student learning, reflecting the vision of the organization, and facilitating and supporting practices of leadership that bring about a change and improvement in student success. Principals nowadays are expected to be visionaries who inculcate a sense of purpose in their staff, are competent managers, and also act as instructional leaders to be able to coach teachers regarding classroom practice (Danielson, 2007). Likewise, Pont et al. (2008) said that school leaders must be responsible for administrative and managerial tasks, financial and human resources, public relations, and quality assurance as well as leadership for improved teaching and learning.

Principals can no longer function simply as building managers tasked with adhering to district rules, carrying out regulations, and avoiding mistakes. Principals today must be instructional leaders capable of developing a team of teachers who deliver effective instruction to
every student (Wallace Foundation, 2013, p. 6). Principals now require very different knowledge and skills in order to be successful within the complex educational society. Education is ever evolving; society needs principals who are effective in implementing the needed changes.

According to Hanover Research (2014), principals should possess the following leadership qualities for effective school improvement:

a. Transformational leadership which is defined as an ability to motivate and engage staff behind a strong organizational vision.

b. Instructional leadership which is knowledgeable about instructional issues and able to align school activity to improve instruction.

Leithwood (1992) defined transformational leadership as a leadership that facilitates the redefinition of people’s mission and vision, a renewal of their commitment, and the restructuring of their systems for goal accomplishment. Leithwood et al. (1999) demonstrated three categories of transformational leadership practices:

a. Setting directions to build a collaborative school vision, develop specific goals and priorities, and holding high performance expectations.

b. Developing people by providing intellectual inspiration, giving personal support, and modelling desirable professional practices and values.

c. Redesigning the organization, which includes developing a shared school culture, creating structures to encourage participation in school decisions, and creating productive community relationships.

Transformational leadership is mainly based on organization and people development. As Krüger and Scheerens (2012, as cited in Ševkušić et al., 2014) found, transformational leadership is more focused on improving organizational structures, organizational culture, and
organizational processes. Leithwood and Jantzi (2005) also stated that transformational leadership is a model of leadership that is most often associated with having a vision, setting directions, redesigning the organization, developing staff and curriculum, and contributing to the community. Equally, Robinson, Hohepa, & Lloyd (2009) affirmed that transformational leadership puts emphasis on the importance of establishing clear educational goals, planning the curriculum, and evaluating teachers and teaching. Kuhnert (1994, as cited in Ševkušić et al., 2014) postulated that transformational leaders have a strong set of values, and they are helpful at inspiring followers to perform in ways that are more beneficial to others than their own self-interests. Eaker and DuFour (2002) identified teachers as “transformational leaders,” as they are “in the best position to transform students’ lives, motivate and inspire students, and get students to do things they never thought they could do” (p. 23).

On the other hand, principals need to be instructional leaders; only ongoing assessment of their behaviours and skills will drive continual improvement of their effectiveness (Krasnoff, 2015, p. 8). Teachers, as instructional leaders, are strongly and positively associated with soliciting parent involvement, communicating positive expectations for student learning, improving instructional practice, and being able to innovate successfully in the classroom (Hoover-Dempsey, Bassler, & Brissie, 1992). In Hallinger’s (2000) opinion, instructional leadership has three dimensions:

a. Defining the mission of the school, where the role of the principal is to ensure that the school has clear, measurable goals that are focused on the academic achievement of the students.

b. Managing the instructional program, supervising, observing teachers in the classrooms, and evaluating instruction, giving feedback on how they might progress in
their work, coordinating the curriculum, monitoring student progress, and encouraging teachers to collaborate with other teachers.

c. Promoting a positive school-learning climate that includes protecting instructional time, promoting professional development, maintaining high visibility, providing incentives for teachers, and providing incentives for learning.

Principals should spend more time in the classrooms than in the office to be effective instructional leaders. They should emphasize the curriculum and instruction, and in turn collect data and analyze it to support student learning (Usdan, McCloud, & Podmostko, 2000; Wallace Foundation, 2013).

Principals should make decisions according to the needs of their school and create good conditions for teaching and learning using effective strategies. Effective school leadership is vital to improve and promote learning, as principals have an influence over the working conditions of teachers and motivate them to shape the classroom practice and student learning. In accordance with research by Louis, Leithwood, Wahstrom, and Anderson (2010), when teachers and principals share leadership, the working relationships of teachers with each other are more convincing and student achievement is better.

Nevertheless, Day and Sammons (2016) stated that principals need time, power, and support to concentrate on the practices that best improve student learning. Also, if principals are required to be instructional leaders, only ongoing assessment of their behaviours and skills will drive the continual improvement of their effectiveness (Krasnoff, 2015).

**Teacher leadership.** Researchers have defined the concept of teacher leadership in various ways. For example, Katzenmeyer and Moller (2001) commented, “Teachers who are leaders lead within and beyond the classroom, identify with and contribute to a community of
teacher learners and leaders, and influence others towards improved educational practice” (p. 5).

On the other hand, Evers and Kneyber (2016) pointed out that every teacher should attempt to make an impact in and outside the classroom and contribute to a community of teacher-learners and leaders. They should influence others towards improved educational practice and accept responsibility for achieving the outcomes of their leadership. Evers and Kneyber disagreed with the idea that some teachers are leaders and some are followers. Moreover, they argued that teacher leaders should be able to reflect on the purpose of their work, and all teacher leaders should do their utmost to be independent professionals and build trust with students, parents, and the state.

According to York-Barr and Duke (2004), there are three types of teacher leadership in which teachers lead professional learning in somewhat different manners. In the first type, teacher leadership is conceived as formal leadership roles such as department head. Bangs and Frost (2016) viewed that form of leadership as distributed leadership. This type of teacher leadership role is assigned at the discretion of the principal, and according to Bangs and Frost, not all teachers can engage in teacher leadership. The second type of teacher leadership is an informal leadership in which new teachers act as mentors and leaders of teacher learning within their schools. In the third type of teacher leadership, according to Dufour (2004), teacher leaders collaborate with their colleagues on self-led learning in professional learning communities.

The contribution of principal leadership is significant in school improvement and effectiveness, but the contribution is not as significant as teacher leadership (Wallace, 2002). Similarly, Danielson (2006) pointed out that teacher leadership represents the highest level of professionalism, and teacher leaders play a significant role in the work of the school and in school improvement, thereby promoting student learning. Teacher leaders become more effective
classroom teachers as they learn and practice new skills or exchange ideas with other teacher leaders. They also serve as peer coaches and mentors, lead curriculum teams, serve as exemplary instructional role models, and determine the school culture.

The benefit of teacher leadership, as Hallinger and Heck (2010) pointed out, is that it supports the creation of enhanced learning environments for students. Ware and Kitsantas (2007) commented that research shows that when teachers are empowered in the roles of professionals and leaders, it builds a sense of professional confidence and satisfaction that leads to effective teaching practice. Likewise, Berry, Daughtrey, & Montgomery (2009) stated that teachers and administrators agree that teacher empowerment is the most important school factor in student learning. Correspondingly, Muijs & Harris (2003) declared, “The principal reason for teacher leadership is to transform schools into professional learning communities and to empower teachers to become involved closely in decision-making within the school, thus contributing to the democratization of schools” (p. 439).

Teachers can make sense of the world and have the power to bring about a positive change in the education system. People need to trust teachers and give them the authority to bring about change. As Sarason (1990) stated, “When a process makes people feel that they have a voice in matters that affect them, they will have greater commitment to the overall enterprise and will take greater responsibility for what happens to the enterprise” (p. 61). Actually, the government is at the top of the hierarchy of the education system, followed by school board members, principals, and last, teachers. The education system should shift from driving to enabling. Teachers should be at the top of the hierarchy to cater for the needs of the students (Allen, 2017). Teachers need to create a strong team that can help to make the whole organization move smoothly to attain success.
In addition to this, Lieberman and Miller (2008) commented that teacher leadership creates a new vision of the teaching profession. Teacher leaders become more confident and enhance their self-esteem. However, on the contrary, as Danielson (2007) argued, good leadership skills such as curriculum planning, assessment design, and data analysis have not been part of teacher preparation programs. Teacher leaders might also need to develop their listening skills and other leadership skills. Furthermore, not every teacher leader can assume a leadership role and carry it successfully. Hargreaves (2004) stated that collaboration, being part of teacher leadership, is not assured to be part of the culture of teaching.

School culture.

Learning environment. Learning depends on the quality of the learning environment and the culture of the school. Bucholz and Sheffler (2009) revealed that a positive learning environment is one where students feel a sense of belonging, trust others, and feel encouraged to tackle challenges, take risks, and ask questions. Research has shown a direct link between students’ success and the school environment in which learning takes place. Students are more motivated to do well and to realize their full potential in schools that have a positive school climate where they feel safe, included, and supported (Safe Schools Action Team, 2008, p. 1).

Shernoff, Tonks, and Anderson (2013) pointed out that students’ engagement as well as perceptions of involvement, contribution of ideas, positive effect, ability to accept challenges, skill use, clear goals, acceptance, and effort are all influenced by environmental complexity, in which environmental challenge and support are simultaneously present. Students feel emotionally supported through a positive relational tone often created by subtle use of positive feedback, affirmation, and expressions of student interest. When students are supported to reach
those goals, both emotionally and with timely performance feedback, they adopt attitudes characterized by excitement, fun, and interest in learning.

The physical environment of a classroom plays a significant role in the way students feel about their school. Marzano and Marzano (2003) believed that students cannot do well and learn to their maximum capabilities in a classroom that is chaotic and poorly managed. Similarly, Stewart, Evans, and Kaczynski (1997) postulated, “If the physical environment of the classroom is not orderly and attractive it can have a negative effect on the way teachers and students feel, think, and behave” (p. 53). They also stated that teachers have the maximum power over factors that affect learning in the classroom. Students spend most of their time in the classroom; it is the place where they will learn the necessary skills to be successful in their lives. Hannah (2013) asserted that “with the classroom being such an important place in the growth of a child, it is important to understand the ways in which to affect this environment in order to receive maximum effectiveness in instruction” (p. 3).

Apart from the physical environment, there are other factors, such as instructional management, behaviour management, and teacher effectiveness that affect the learning environment (Turano, 2005). Furthermore, according to Stewart et al. (1997), teachers should have a schedule and a routine plan for proper functioning of the classroom. In this way, students will be aware of what to do exactly, and in turn, teachers get more instructional time. Marzano and Marzano (2003) put forward that classroom management and behaviour have the utmost effect on student learning. It is important for teachers to set classroom rules at the start of the school year so that they can control the students, which in turn will improve learning, as the classroom will run smoothly.
Motivation. Jones and George (2000) defined motivation as “psychological forces that determine the direction of a person’s behavior, a person’s level of effort, and a person’s level of persistence in the face of obstacles” (p. 427). Motivation is imperative in improving student learning outcomes, as without motivation, learning is impossible. Biehler and Snowman (1986) emphasized that motivation is a necessary ingredient for learning. Hattie (2009) noted that a motivated student is more likely to be a high-achieving student. Similarly, Bank and Finlapson (1980) found that successful students have significantly higher motivation for achievement than unsuccessful students.

Motivation only can decide whether a student will succeed or fail. It includes internal and external factors that arouse energy in students to be constantly interested and devoted to the work, or to try to accomplish a goal (Gbollie & Keamu, 2017). Some students learn better through external influences, while others may be successful by following their own wishes. Dumont et al. (2010) commented that students are motivated to engage in learning when they feel competent to do what is expected of them; they value the subject and have a clear sense of purpose. Students are also motivated when they have a favourable environment for learning and they experience positive emotions towards learning activities.

Various factors can improve student motivation: Setting challenging goals that are regarded as capable of being done by the students, providing regular positive feedback on their work, and helping students with difficulties (Dornyei, 2001). Teachers need to explain the objectives of any kind of work given to the students. Clear objectives and rules motivate the students to perform better. Motivation can increase when students feel some sense of trust in the learning process. Students should be provided with “motivated learning schemas” and equal opportunities to work in different learning environments, thus enabling them to participate in the
type of learning activities that promote learning and understanding (Volet & Järvelä, 2001). The classroom environment motivates students to learn.

It is imperative for teachers to motivate their students, as without motivation, nothing can be achieved. Harmer (1988) commented that “motivation is some kind of internal drive which pushes someone to do some things in order to achieve something” (p. 51). Students who are motivated can do any task to achieve their goals, and hence motivation promotes learning.

As Reeve and Jang (2006) stated, a teacher needs to adopt a supportive teaching style that allows increased student interest, enjoyment, engagement, and performance. A teacher should be a good listener, an encourager, able to respond to student questions, and show empathy. Teachers should use different instructional methods to encourage the students and make the classroom more interesting and motivating, which in turn can promote learning. Rehman and Haider (2013) commented that rewards and praise motivate students. Teachers can motivate students by rewarding success in public, praising a job that is well done, and sharing exemplary work.

On the other hand, Hattie (2009) argued that motivational factors can have a considerable effect on achievement, as the level of student engagement is increased with effective learning strategies. Thus as Dornyei (2001) stressed, “teacher skills in motivating learners should be seen as central to teaching effectiveness” (p. 116). It is difficult and time consuming to motivate students. Much effort is required to motivate students. However, learning is impossible without motivation.

Professional learning communities. “If schools want to enhance their organizational capacity to boost student learning, they should work on building a professional community that is characterized by shared purpose, collaborative activity, and collective responsibility among staff” (Newmann & Wehlage, 1995, p. 37). Lieberman and Miller (2008) defined professional
learning communities as “ongoing groups . . . who meet regularly for the purposes of increasing their own learning and that of their students” (p. 2). Bolam et al. (2005) similarly postulated that a professional learning community (a) represents a cooperative effort to improve student learning, (b) promotes and strengthens the learning of every professional in the school, (c) builds knowledge through inquiry, and (d) examines and uses data for reflection and enhancement.

According to Lieberman and Miller (2011), professional communities build relationships between and among teachers who share students and who are working for greater student learning. Communities eliminate teacher isolation and start with what teachers know and do. They expose teachers to what they need to know, offering support and opportunities to learn from one another about how to provide the richest possible opportunities for student growth. Many teachers have significant expertise and can facilitate learning with their colleagues in a learning community.

Schools that use the concept of collaboration identify that student learning improves when teachers work together (Hulley & Dier, 2005). Teachers have the chance to cooperate with other teachers to scrutinize the progress of students and plan for suitable instruction at all levels. Teachers have the potential to get peer support in a professional learning community. They also share the responsibility and create flexible structures to support the learning of all students.

Hammond (1998) stated that teachers gain more knowledge by studying, executing, and reflecting; by working in collaboration with other teachers; by monitoring students’ work closely; and by sharing what they see. Effective teachers will question how students want to learn and will find the answer to that by reflective thinking. They will also get the opportunity to share their reflections with their colleagues, and can enhance the results of reflection in many instances.
Involvement of parents in school is essential as they are at a better position to support their children if they are informed about the performance of their children in school and it is an appropriate way to encourage and motivate them to learn (Desforges and Abouchaar 2003). A similar statement was made by Lee and Bowen (2006), where they mentioned that there should be dialogue between parents and schools to keep parents informed about curricula, courses, school rules, and assessments. By working together, parents and teachers can support the student to achieve success. On the other hand, parents can converse their expectations and educational aspirations by talking about the choice of subject, academic desires and the future pathways (Pomerantz, Moorman and Litwack 2007). Henderson, A. & Mapp, K. (2002) asserted that conversations between parents and teachers should be more frequent and positive so that parents can receive apparent and reliable information from schools on how to successfully contribute to their children’s learning.

Schools that demonstrate high levels of student improvement actively support the belief that “all children can succeed in school” (Raptis & Fleming, 2003). But to support this statement, it is fundamental for the members of the school to work in innovative ways that change the culture of the school by varying the ways things are done. School members will gain new understanding about teaching and eventually build up new perspectives towards the learning process by collaborating and reflecting in a professional learning community.

Conversely, professional communities require teachers to be open to new ideas and practices and shared responsibility for learning (Talbert, 2010). Another challenge of a professional learning community is time; as Horn (2005) mentioned, it takes time to develop an authentic learning community. Effort and time are needed to deal with different types of opinions and to get at the real problems of practice. Grossman, Wineberg, and Woolworth (2001) also
indicated that it takes time to cater for the differences in subject matter and approaches to teaching.

**Personalized learning.** To ensure that students are able to thrive in this new era, personalized learning has become a key strategy to improve and promote student learning. Paludan (2006) asserted that personalized learning is an appropriate solution to the challenge of motivating and supporting students this century, and can lead to both personal and national economic benefits (p. 98). Personalized learning is defined as “tailoring learning for each student’s strengths, needs, and interests—including enabling student voice and choice in what, how, and when they learn—to provide flexibility and supports to ensure mastery of the highest standards possible” (Gewertz, 2016). Dweck (2000) declared that learning is personalized when the students are motivated to learn, since they view the learning as being engaging and meaningful and as directly addressing their individual learning needs.

Learning is expected to be meaningful when students know how to self-regulate their learning (Pintrich & De Groot, 1990). Students have a sense of agency in deciding their educational pathway. Moreover, personalized learning can lead to improved student engagement, which may in turn improve learning. Students have the opportunities to make choices, which makes them active participants in their education. They become more engaged and satisfied with their personal wellbeing and academic performance.

Hargreaves (2004) claimed that numerous key features are evident when learning is being effectively personalized; students are more engaged in learning and they are accountable for and demonstrate independent control over their learning and behaviour because they have a clear view of their own goals. They also show maturity in connecting to peers and staff. Students become more engaged if they have control over learning (Brooks & Brooks, 1999). Baghaei,
Mitrovic, and Irwin (2007) concurred; they wrote that students learn best and more effectively when their individual needs are taken care of. Thus, personalizing learning holds much promise to improve student learning. Childress and Benson (2014) also concluded that personalized learning can cater for the needs of all students, motivate them according to their interests and academic level, improve their learning, and make them ready to become true lifelong learners. “What students are to learn is usually not subject to negotiation, but students do have considerable choice of what they will do in order to learn what it is intended that they learn” (Schlechty, 2001, p. 125).

Personalized learning depends on the teacher’s effectiveness to change the curriculum to address diverse learner needs and the development of independent learner capacities (Blanchard, 2009; Hargreaves, 2004; Paludan, 2006; Sebba, Brown, Steward, Galton, & James, 2007). Teachers are accountable for designing and implementing a curriculum in which all the students are engaged; they should provide opportunities for differentiated teaching and learning that cater for the individual needs of the students, and motivate and develop the skills of the students to make them independent learners. Patrick, Kennedy, and Powell (2013) argued that personalized learning entails new instructional models that let students overcome specific competencies at their own pace, especially with the support of technological tools that facilitate assessment, analysis of data, and individualized instruction. Likewise, Campbell, Robinson, Neelands, Hewston, and Mazzoli (2007) commented that personalized learning “entails a range of pedagogies that cater for individuals, such as cooperative learning, mentoring, valuing experiential learning, incorporating learners’ personal and social experience, using ICT, and providing individual support” (p. 140). For Sebba et al. (2007), personalized learning consists of five main components: (a) assessment for learning, (b) effective teaching and learning,
curriculum entitlement and choice, (d) school organization, and (e) relationships beyond the classroom.

No two students learn the same way or at the same pace (BC Min. of Ed., 2015). All students are unique human beings, coming from different social, economic, and cultural backgrounds. The students are also different in cognitive and affective development. They have different learning styles, interests, needs, aspirations, motivations, and potentials. So, teachers need to focus on their students as learners and be aware of the needs of all students, what they want, and what motivates them. They need to know the attainment and progress of each student. Personalized learning is “putting the learner at the heart of the education system” (Leadbeater, 2008). By listening to them, giving them opportunities to open up, caring for them, and winning their trust, teachers can promote learning.

On the other hand, collaborative learning and knowledge building is one of the most meaningful ways to support individual learning mechanisms (Bereiter & Scardamalia, 1989). Students become effective and engaged in rich and meaningful interactions among classmates, and thereby arrive at complex and conceptual understanding.

Personalized learning has the capability to transform the education system (Duncan, 2013). However, without the proper guidance, personalized learning will be chaotically referenced, partly implemented, finally demonized, and then viewed as being unrealistic in education. There is a dire need to see how teachers use data, how technology is used to support students, how to train teachers who are ready to work in personalized settings, and how the curriculum is designed to support personalized learning. Adapting to these new methods and technologies can be a challenge for teachers. Meyer, Haywood, Sachdev, and Faraday (2008) argued that there are difficulties in implementing personalized learning in schools, mainly as
teachers require new skills, as well as teachers’ beliefs about flexibility in teaching approaches and student grouping. Teachers should be provided with the necessary tools, resources, and strategies to support the implementation to be effective. But very often, all these tools are expensive, and the authority cannot afford to supply every school.

Prain et al. (2013) also commented that teachers need the skills, time, resources, and collaboration to develop a curriculum that is flexible and effectively structured in content and learning tasks, and to design a classroom adaptable to engaging all learners and deal with different learner needs. Teachers will need to be flexible to decide how and when each student needs to be assessed in a personalized learning environment. Student progress and learning objectives should be conveyed regularly to parents rather than periodically.

Structure of school.

Curriculum differentiation. One of the challenges facing teachers nowadays, according to Golub (1993), was that “when one must cover items—and usually there are far too many items in the curriculum anyway to be covered adequately—one tends to focus on teaching content instead of teaching students” (p. 3). The content is basically what is set by the ministry of education. Tomlinson (2005) recommended that the content of the course needs to cater for individual differences and make sure that all students learn in ways that match their readiness, interests, and learning profiles. Achieving equality and excellence for all children should depend on the quality and characteristics of the curriculum (Hart, 1992). In curriculum differentiation, teachers are required to modify the content to help students succeed.

Curriculum differentiation is the process of modifying or adapting the curriculum according to the different ability levels of the students in one class (UNESCO, 2014, p. 14). To promote learning and to ensure all students succeed, teachers should modify the curriculum to fit
the students’ learning needs. Teachers can differentiate the curriculum by changing the content, adding more extra-curricular activities, and changing the methods of teaching and assessment so that they are fair to students and do not discriminate. Tomlinson (1999) also asserted that curriculum differentiation can take place across three dimensions: (a) content; that is, what students should know and be able to do, and the resources that will help them in their learning, (b) Processes, meaning the activities that help students make sense of their learning, and (c) products, the range of evidence of their learning that students provide. Renzulli (2008) argued that the curriculum should be designed in a way that will promote engagement, enhance satisfaction, and create a real enthusiasm for learning.

According to Ord (2012), learning by doing is based on three assumptions: First, students learn best when they are personally involved in the learning experience. Second, knowledge has to be discovered by the students if it is to have any significant meaning to them or make a difference in their behaviour, and third, students’ commitment to learning is highest when they are free to set their own learning objectives and are able to pursue them actively within a given framework. The film, *Most likely to Succeed* (Dintersmith & Whiteley, 2015) showed how students learn better when they solve real-life problems. Learning by doing can be enhanced with technology, and mostly it can improve students’ achievement.

However, such a learning transformation will necessitate considerable changes to the way we usually design the curriculum and the way teachers teach. Jackson and Davis (2000) recognized that there are important challenges with implementing curriculum differentiation: Teachers need time, skills, and resources to execute curriculum differentiation.

**Assessment and feedback.** Assessment and feedback are the catalyst for improvement in teaching and learning. Jiao (2015) noted that assessment plays a significant role in measuring the
achievement of intended learning outcomes and provides opportunities for students to monitor their own learning progress. The benefits of assessment are that on one hand, students benefit from feedback support on a regular basis that enables them to evaluate the quality of their own work; and on the other hand, students are required to be engaged and considerably involved in learning. However, Sadler (1989) concluded that while providing students with timely and meaningful feedback, it is important to understand not only what students have or have not learned, but also why.

According to Odden (2007), there can be a significant improvement in student learning when teachers use formative assessment to plan their teaching. Assessment is mostly efficient when the teacher engages with students to make sure that every student has understood, and the teacher gets an opportunity to identify misunderstandings or gaps in learning. Alternatively, Nicol (2010) asserted that assessment should be rewarded by giving marks whereby students are motivated to learn, though not all students are obsessed with external rewards.

On the other hand, students wish for and value quality feedback (Hyland & Booth, 2000), and high-quality feedback is the most influential in student achievement (Hattie, 1987). It is a widely held perception that quality feedback is a prime benchmark for effective teaching and a crucial requirement in meeting students’ expectations (Ramsden, 2003). Black and Wiliam (1998) discovered that feedback produces considerable benefits in learning and achievement across all content areas, knowledge and skill types, and levels of education. However, not only students but also teachers should get feedback on their own performance from the performance of their students and adjust their teaching accordingly to improve outcomes (Hattie, 2009).

Jones (2005) revealed that feedback is dependent on the quality of the feedback and how students receive and eventually use it. Thus, teachers require training and support to be able to
make valuable assessment decisions, to give quality feedback to students, and to teach students to receive feedback positively and use the information contained within it efficiently to make progress in their work. Providing feedback to students on their work has a positive effect on student learning. However, when the feedback is negative, teachers need to ensure that they have the expertise to deal with differing effects of feedback on achievement (Kluger & DeNisi 1996).

**Teacher Attributes**

**Growth mindset.** Pajares and Schunk (2002) asserted that many students have difficulty in school, not because they are incapable of performing successfully, but because they are incapable of believing they can perform successfully; they have learned to see themselves as incapable of handling academic work or to see the work as relevant to their lives (p. 22).

The role of teachers in this case is to encourage the students in developing positive self-beliefs about their academic capability and intelligence, as these students may not believe they can be successful if they make an effort to improve. Boaler (2013) stated the importance of students’ mindsets for learning is that when students believe that everybody’s ability can grow, their achievement improves significantly. The growth mindset fosters a love for learning and creates a positive attitude that accepts failure as a way to success.

Dweck (2006, pp. 6-7) affirmed that although people may differ in every way—in their initial talents and aptitudes, interests or temperaments—everyone can change and grow through application and experience. Students’ mindsets can change only if leaders have a growth mindset, as they have different beliefs about students’ growth and learning. Students need help to learn, so teachers who are aware of the growth mindset do their utmost to unlock that learning.

Finley (2014) stated the strategies for helping students develop a growth mindset are dependent upon teachers setting achievable micro-goals to encourage students’ consistent
incremental progress. Second, when students succeed, teachers should praise their efforts and strategies, not their intelligence. Third, teachers should help students focus on and value the process of learning. Last, teachers should design classroom activities that involve teamwork rather than competitive or individual work, as students are more motivated and successful when working in groups.

Lifelong learning and professional development for teachers. Teaching is complex and challenging work in today’s world, as the educational expectations and curricula are continuously evolving. Thus, teaching requires the highest standard of professional practice, and lifelong learning plays an important role for teachers’ professional development. Lifelong learning fosters creativity, enhances technology usage, and teachers become innovative. As Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009) noted, professional development emphasizes improving instructional practice by giving teachers new knowledge and techniques for assessing learning that will ultimately improve students’ learning.

However, the professional development courses given to teachers are the traditional one-day workshop held once or twice a year, which is not enough for a teacher to be effective. Nieto (2009) argued that the development activities are “notoriously unproductive” and are frustrating, as an administrator will choose a subject and teachers will be like a “captive audience” (p. 10) instead of engaging in relevant learning. Another issue is that there is always a lack of time for teachers to do everything that is important to do. But time is an important factor for learning to occur. The more time spent on learning, the better the results.

Kouzes and Posner (2010) suggested “the best leaders are the best learners” (p. 120). Learning should be lifelong, about 2.7 hours a day, every day for 10 years, to gain new skills and develop the personality, relationships, and career. On the other hand, Darling-Hammond and
Richardson (2009) stated that students make considerable success when their teacher is engaged in sustained, intensive professional learning. Teachers need on average 50 hours of learning and practice in an area to improve their skills and their students’ learning. Similarly, Yoon, Duncan, Lee, Scarloss, and Shapely (2007) conducted nine studies to determine the time required to make an impact on learning. Their analysis shows that efforts with an average of 49 hours showed positive and significant effects on student learning.

Researchers agreed that frequent and deliberate use of learning strategies is related to academic achievement (Boekarts, Pintrich, & Zeidner, 2000). For teachers to learn to use these new technologies and to be innovative, adopting a lifelong learning mindset is indispensable. Creating a profession of teaching in which teachers have the opportunity for lifelong learning is the likeliest way to inspire greater achievement for students, especially those for whom education is the only pathway to survival and success (Darling-Hammond, 1998).

However, the amount of time spent on learning is not the only variable that matters for professional development; how teachers learn and what they learn are also crucial factors in determining student achievement. Darling-Hammond and Richardson (2009) commented, “Teachers must learn to teach in ways that develop higher-order thinking and performance” (p.46). The most beneficial professional development includes active teaching, observation, assessment, and reflection rather than abstract discussions (Darling-Hammond & McLaughlin, 2011). On the other hand, Yoon et al., (2007) found that “professional development efforts that were directly related to a teacher’s practice, that were integrated with other school reform efforts, and that engaged teachers in collaborative communities were also more effective” (Center for Technology in Learning, 2009, p. 3).
Rigorous research by Darling-Hammond (1998) and Wei et al. (2009) determined the following about professional development:

a) “Professional development should be intensive, ongoing, and connected to practice.”

b) “Professional development should focus on student learning and address the teaching of specific curriculum content.”

c) “Professional development should align with school improvement priorities and goals.”

d) “Professional development should build strong working relationships among teachers.” (p.9)

Teacher effectiveness. The only factor that can make students succeed is a knowledgeable, skillful teacher. “What teachers know and can do is the most important influence on what students learn” (Nat’l. Commission on Teaching & America’s Future, 1996, p.10).

Wright, Horn, and Sanders (1997) concluded that “the most important factor affecting student learning is the teacher” (p. 63). Similarly, Marzano and Marzano (2003) agreed that the action of the teachers in the classrooms have double the impact on student achievement, as do school policies regarding curriculum, assessment, staff collaboration, and community involvement. On the other hand, Barber and Mourshed (2007) concluded that teachers who are highly effective have improved the advancement of students by three times that of teachers whose performance is low.

Hoover-Dempsey et al. (1987) defined teacher efficacy as consisting of three aspects: (a) teachers’ effectiveness, (b) learning abilities, and (c) professional knowledge. Teachers are judged based on their abilities to bring about desired outcomes of student engagement and
learning, even among those students who are low achievers or are not motivated to learn (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). According to Leithwood, Seashore Louis, Anderson, and Wahlstrom (2004), major discrepancies in student learning are accounted for by teachers’ capacities, which include literacy skills, subject matter content knowledge, pedagogical skill, pedagogical content knowledge, and classroom experience. Equally, Hattie (2009) and Hallinger, Heck, and Murphy (2013) found that the skills, knowledge, and attributes of the teacher are indispensable components in the development of effective pedagogical and learning strategies.

Effective teachers are more likely to be organized and demonstrate better skills in instructing, questioning, explaining, and providing feedback to students having trouble, and supporting students on task (Ashton & Webb, 1986). According to Smylie (1989), teachers who possess efficacy have a tendency to provide opportunities for students to communicate by using various models to meet each student’s needs, and they also give the chance for more individualized instruction (Tschannen-Moran, 2001).

**Conclusion**

Although numerous articles have been published and considerable research has been done regarding the factors that improve and promote learning, this literature review has led me to find the themes that are appropriate to my work. The literature review focused on major themes such as: (a) leadership, (b) school culture, (c) structure of school, and (d) teacher attributes.

The research has deepened the justification for further research in this area, as the review of literature has served to guide the methodology and analysis of the research. The information acquired from the literature review was used to design the survey questions and support the research questions. This literature review, however, was an attempt to explore this topic to have a
better understanding of the factors that can improve and promote learning and apply it to Mauritius.
Chapter Three: Methodology

This chapter articulates and justifies the research methods I used. It describes the research objective and the philosophical assumptions supporting this research. The main objective of this study was to find the factors that promote and improve learning among students in Mauritius. The research study was done by gathering relevant data from principals and teachers through online surveys and compiling information from the databases to analyze the findings to have feedback about the factors that can improve and promote learning. In addition, this chapter outlines the research design, the research method, the description of the sample used, and the methods of data collection. It also entails the validity and reliability of the research.

Research Design

I chose a survey research design due to the nature of the study and to meet the objective of the study. Survey research is used:

to answer questions that have been raised, to solve problems that have been posed or observed, to assess needs and set goals, to determine whether or not specific objectives have been met, to establish baselines against which future comparisons can be made, to analyze trends across time, and generally, to describe what exists, in what amount, and in what context. (Isaac & Michael, 1997, p. 136)

Parsons, Hewson, Adrian, and Day (2013) asserted that surveys enable researchers to gain data and opinions from a population. They also mentioned that once the data is collected, “it can be used to make decisions, develop new programs, improve service, and influence decision makers” (p. 57). The research question of the study was to find the factors that promote and improve learning among students in Mauritius, and thus, according to Parsons et al. (2013), a survey is the preferred data collection method for this study, as it fits my research question. The
aim of this study is to challenge the status quo in order to bring about positive change in Mauritius, and to contribute to the development of teaching and learning, thus improving student achievement.

The survey was online and participation was completely voluntary and anonymous. The participants were principals and teachers from public high schools in Mauritius. Quantitative and qualitative data were collected from the online survey and analyzed. The results were based on the analysis. By using surveys, researchers are able to obtain information from large samples of the population. The advantages of using survey research, according to Kelley, Clark, Brown, and Sitzia (2003) are first, that it is more likely to obtain data based on a representative sample compared to other approaches and the data can be generalized to a population. Second, a large amount of data can be obtained in a short period of time for a low cost. Similarly, Bell (1996) pointed out that minimal investment is required to develop and manage surveys and is fairly easy for making generalizations. Surveys can generate data about attitudes that are complex to measure using observational techniques (McIntyre, 1999).

**Research Method**

A mixed method of a quantitative and qualitative research approach was used in order to satisfy the objective of the study. Palinkas et al. (2011) argued that mixed method designs are considered desirable in implementation research, as they provide a better understanding of research issues than either qualitative or quantitative approaches alone. Qualitative methods are, mainly, meant to achieve depth of understanding, while quantitative methods are intended to achieve breadth of understanding (Patton, 2002).

Burns and Grove (2005) defined quantitative research as a formal, objective, systematic process in which numerical data are used to obtain information about the world. The quantitative
research method is reliable, as the researcher can use statistics to generalize a finding. Quantitative data are efficient and can test hypotheses.

Qualitative research consists of an interpretive and naturalistic approach where the researcher interprets phenomena in terms of the meanings people bring to them (Lincoln & Guba, 2000, p. 3). The aim of the study was to get the views and perspectives of principals and teachers from public high schools in Mauritius regarding the promotion and improvement of learning. Consequently, the qualitative research approach is an appropriate method, as it enables the researcher to get meaningful and detailed data from the perspectives of the participants. This approach also provided a holistic view of the study.

The Study Population and Sample

Burns and Grove (2005) defined a population as all elements (individuals, objects, and events) that meet the sample criteria for inclusion in a study. The study population included principals and teachers working in public high schools. According to Nworgu (1991), a sample of the population in a study is a smaller group of elements drawn through a definite procedure from an accessible population. The elements making up this sample are those that are actually studied. Sample selection depends on the population size, its homogeneity, the sample media and its cost of use, and the degree of precision required (Salant & Dillman, 1994, p. 54). The participants must be selected at random and must have an equal chance of being selected.

Fifty principals working in the public high schools from all the four educational zones of Mauritius were invited to participate in the survey through emails (see Appendix A) that are located in the Ministry of Education website. To obtain a high response rate, the email included a thorough explanation of the purpose of the study, information on confidentiality, risks involved, and how it might be beneficial to the Mauritian education. The participants in this study had
sufficient and relevant work experience, knowledge and skills in the field of education. Thus, the
principals were considered appropriate as population of the research study, as they were in a
better position to provide the researcher with the required information to reply to the research
questions of this study.

I also chose to get the opinions of teachers. Teachers are experts in their profession and
know their students’ needs better than anyone else. According to the researcher, teachers can
make better changes in the education system, as they make a difference in the lives of students.
Thus, teachers were selected randomly from the public high schools all across Mauritius to
ensure a fairly equal representation of the variables for the research study and because there are
various schools environment all across Mauritius. I first emailed (see Appendix B) five
secretaries of different public high schools at random (email located on the Ministry of
Education website) and asked them to share the link of the survey with the teachers of those
schools, as I did not have any means of contacting them directly. My intention was to get the
response of about 50 teachers and did not take into consideration ethnicity or gender. The teacher
participants were a suitable sample for this study. Also, participation was voluntary and
anonymous.

I employed a system of random sampling. The aim was to collect both quantitative and
qualitative data. Although the study population was small, random sampling allowed the results
to be generalized to the larger population, and the survey questionnaire included open-ended
questions, a descriptive, detailed data collection.

Description of the Instruments Used

The instrument used in this study was web surveys, (SurveyMonkey) as this method
gives results that are easy to summarize, evaluate, and generalize. In addition, I preferred the
online survey because it could be used to collect data from various parts of Mauritius and cover a large group of teachers. Fricker and Schonlau (2002) noted that online surveys can be done more quickly and effectively, and are cost effective compared to surveys done via conventional modes. The questionnaire was the key data collecting strategy for this research study. So, I prepared two types of surveys questionnaires (see Appendix C, and Appendix D). The questionnaires were aimed at evoking relevant data concerning the promotion and improvement of learning. The questions were based on the work of various authors in the literature review.

Fowler (1995) mentioned that both the question and any response options must be clear to both the respondent and the researcher (p. 2). Thus, the questions were concise and easy to understand. In addition, these questions encouraged principals and teachers to reflect on their daily practices, their duties and responsibilities. It also allowed them to reflect on their experiences, beliefs, and values as principals and teachers. I believe that a survey was the most effective way to get principals and teachers to participate in sharing their point of view on the factors that can promote and improve learning. A survey was the best means to extract the most relevant information and facilitate a clear analysis of the data.

The first part of the survey consisted of Likert scale questions ranging from strongly disagree, through disagree and agree, to strongly agree. The participants were informed to respond to their degree of agreement. The second part of the survey questionnaire included open-ended questions; these types of questions allowed the participants to answer in their own words and give a detailed and rich answers. I was also aware, according to Salant and Dillman (1994), that open-ended questions required more thinking and time for participants to answer, and the results gained would be more difficult to analyze.
Prior to the study, I conducted a pretest with the questionnaire to ensure the reliability and validity of the survey. This allows me to see—to the best of my ability—if the data collection methods were suitable, easily understood, and complete. The pretest was done with five individuals similar to those planned for the survey sample.

**Procedures Followed**

The procedures for this study consisted of gathering data using online surveys and analyzing the results obtained. To start, I set the survey questions based on the purpose of the study and literature review. I used online surveys, as I believed that it was easy and convenient for participants to get access and to fill out the questionnaire. Participants had a wide variety of ways to access the online survey, namely; mobile, laptops, computers and tablets.

Permission from the Vancouver Island University Research Ethics Board (REB) was sought to carry out the surveys to safeguard the participants and to ensure all legal and ethical requirements were followed. All the necessary documents, including emails to be sent to the principals and secretaries of schools and survey links were provided to REB. The research study began after having obtained the permission, which took about two months.

Emails (see Appendix A) were sent to fifty principals of public high schools in Mauritius. The emails consisted of the purpose of study, confidentiality, the risks involved, and the link of the survey. The participants were reassured that their answers would be treated strictly as confidential and used for academic purpose only. No consent forms were required, as the consent information was at the top of the online questionnaire and there was a checkbox where the participants had to confirm they had read all the information and agreed to participate. Similar emails were sent to five secretaries of the public high schools, and the researcher requested the secretaries to share the survey link to the teachers of the school.
Furthermore, I ensured that emails were forwarded on a carefully chosen week that was not unusually busy, so that participants had time to complete the survey. The data was gathered electronically from SurveyMonkey and was kept safely on a password-protected computer throughout the research study and were deleted at the end of the research.

**Validity and Reliability**

This study posed certain questions regarding validity and reliability. However, I took measures to reduce the threats. The aim of the study was to find the factors that promote and improve learning. The validity of the study was reinforced by setting the survey questions according to the literature review and my own experience as a teacher. A pretest was done on a group of people to ensure the survey was suitable for the study. The clarity, language used, and length of the survey were tested. Slight changes were made as per the feedback obtained. For example, the survey was too long, so it was shortened to increase the response rate. Other useful suggestions were modified and corrections were made.

As the response rates of the participants were low, threats to reliability were higher. A much greater sample would almost certainly increase the reliability of the research study. Out of 50 emails sent to principals, only eight responded. As far as the teachers, 29 out of 70 teachers responded to the survey. Sitzia and Wood (1998) concluded that participants recruited by mail had a lower response rate than participants who were recruited personally. According to Cresswell (2008), a low response rate may result in a response bias where the responses do not accurately reflect the views of the sample and the population (p. 403). Conversely, the work of Visser et al. (1996) showed that though some studies have low response rates, even as low as 20% are able to give more accurate results than studies with response rates of 60% to 70%. It is also important to keep in mind that surveys provide only estimates for the true population, not
exact measurements (Salant & Dillman, 1994, p. 13). Thus, responses may be biased, as I used the data from a sample of participants to draw a conclusion about the wider population.

**Analysis Techniques**

An analysis is done to summarize the data gathered and to provide the answer to the question of the study. As the aim of this research study was to gather quantitative and qualitative data in order to find the factors that promote and improve learning, data was collected using the SurveyMonkey software and the weighted average tool was used to organize and analyze data. Finally, the quantitative data were displayed on charts and graphs, whereas the qualitative data yielded detailed observations with thick description and were displayed using tables. I chose to use graphs, charts, and tables, as data well-organized and well-structured helped with the act of interpretation. Data was gathered and relevant conclusions were made on the study.

**Conclusion**

The chapter described the methodology, which included the research design, survey instrument development, and survey implementation. It also used strategies to ensure the validity and reliability of the study. In summary – I used a mixed method of quantitative and qualitative to obtain effective results of the study. I prepared two types of questionnaires to collect data from samples of 50 principals and 70 teachers of public high schools in Mauritius. The questionnaire consisted of both Likert scale and open-ended questions. Ethical considerations were taken during the study process. A pretest was done to ensure validity and reliability of the questionnaire.
Chapter Four: Findings and Results

As stated in the previous chapter, the purpose of this research study was to find the factors that can promote and improve learning among students in Mauritius. Two types of survey questionnaires were developed, and online surveys data were collected from principals and teachers of public high schools in Mauritius to conduct a quantitative and qualitative analysis. The aim of the analysis was to get the perspectives of principals and teachers on how to promote and improve learning and to communicate what has been learnt from the research study. The participation of the surveys was voluntary and anonymous. This chapter comprises the findings and presentation of the results of the research study in connection to the surveys completed by the participants. The analysis of the data addresses the following research questions:

a. What are the issues of the education system and how are the schools keeping abreast with the 21st-century demands?

b. How does leadership affect student learning?

c. What are the effects of school culture (learning environment, professional learning community, motivation, and personalized learning) on student learning?

d. What are the best teaching practices that can promote student achievement?

e. Do teacher attributes play a role in the promotion and improvement of learning?

f. What are the factors teachers and principals are aware of in the promotion and improvement of learning?

A detailed presentation of quantitative data and qualitative data are indicated by means of graphs, charts, and tables. Quantitative analysis models are realistic and representations are easily understood. Alternatively, qualitative analysis provides a rich and detailed description of the results.
To ease the process of data analysis, the findings were grouped and organized under bigger umbrella terms identified in the literature review chapter. These themes consist of: Leadership, school culture, structure of school, and teacher attributes. In addition, this chapter gives a description of the response rate of the surveys.

**Response Rate of Surveys**

My aim was to get the perspectives of ten principals and 50 teachers of public high schools in Mauritius and to gain new knowledge from the research. The participants in this study were selected from all around Mauritius in order to get better meaning, perspectives, and views of the study. Participants had varied teaching experience, as some were novice principals and teachers and also those who were experienced.

The data analysis started by initiating an understanding of how many principals and teachers participated in the survey. It was found that 18% (9/50) of the principals responded, whereas 41% (29/70) of the teachers responded to the online survey. However, after doing a close analysis of the data, I found that one principal did not answer over half of the questionnaire survey. Though the sample population was already small, it was wise to discard the participant questionnaire survey from the analysis, and finally the sample size was reduced to 16% for the principals. The missing data did not drastically impact the result of the study. Thus, only principals and teachers who completed the whole questionnaire were taken into consideration for analysis.
Table 4.1

Responses from principals and teachers

<table>
<thead>
<tr>
<th></th>
<th>Principals</th>
<th>Teachers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of questionnaires distributed</td>
<td>50</td>
<td>70</td>
<td>120</td>
</tr>
<tr>
<td>Number of questionnaires received</td>
<td>9</td>
<td>29</td>
<td>38</td>
</tr>
</tbody>
</table>

Table 4.1 shows the responses from principals and teachers. Out of 120 questionnaires distributed, the researcher received only 38 completed questionnaires. Eighty-two participants did not respond to the questionnaire. This corresponds to a response rate of 32%.

Figure 4.1. Response rate of survey.

The work of Visser et al. (1996) showed that some studies having low response rates, even as low as 20%, are able to give more accurate results than studies with response rates of 60% to 70%. A similar observation was made by Holbrook et al. (2008), who concluded that studies with much lower response rates ranging from 5% to 54% were often only slightly less accurate than those with much higher described response rates. Thus, it is realistic to conclude that in this study, the target was met with a satisfactory response rate of 32%.
Analysis

Two types of questionnaires were designed, both of which contain Likert scale and open-ended questions. In order to attain the objective of the research, the results were examined and presented in accordance with the survey questions. To facilitate the process, I created sub-questions to answer the research questions.

The Likert scale questions were used to rate the degree to which the participants agreed or disagreed to a statement and also to rank certain statements. Results were displayed using graphs and charts. On the other hand, open-ended questions were asked to enable the participants to provide unlimited answers to the statements. The data were presented as wordles, or word clouds. The more frequent word within the data will appear bigger in the wordle than those words which were less frequent. Qualitative themes were recorded from the wordle. Some of the direct quotes from the participants were also shown in tables.

Research Question One

What are the issues of the education system and how are the schools keeping abreast with the 21st-century demands? By setting this question, my aim was first to have an overview of the Mauritian education system. What are the difficulties and how are the principals and teachers dealing with the challenges? To answer this question, I set the following five sub-questions:

1. What is your overview of the Mauritian Education system? Do you think change is required?

This question was set to the principals, and all of them affirmed that change is required in the Mauritian Education system. Concerning the overview of the Mauritian Education system, there were two common themes: “Academic” and “need of right personnel” emerged from the
responses of the participants. Participants reported that the Mauritian education system is too academic and competitive. Students are not given the opportunity to develop their creativity and there needs to be the right personnel to be involved in the decision making. Table 4.2 illustrates the themes that emerged, the number of times it emerged, and the quotes from the participants.

Table 4.2

*Overview of the Mauritian Education system*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of times themes emerged</th>
<th>Quotes from Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>3</td>
<td>“Mauritian Education system should shift from the traditional chalk and talk lessons to more interactive and projects-based learning.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“A big change is required. We are being too academic. Essence of education is losing its value. The importance of education itself should be redefined.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Mauritian education system is too competitive and academic. Students are not given the opportunity to develop creativity.”</td>
</tr>
<tr>
<td>Need of right personnel</td>
<td>3</td>
<td>“Too much of shambolic ideas and unfit personnel.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Teachers should be involved in the decision making.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“It needs to have the right people in the right place to develop and manage policies.”</td>
</tr>
</tbody>
</table>
2. What is the percentage of the cohort entering form one and successfully completing Higher School Certificate (HSC)?

Table 4.3

| Percentage rate of cohort entering form 1 and successfully completing Higher School Certificate |
|---------------------------------|---|---|---|---|---|---|---|---|
| Percentage of cohort entering form 1 and successfully completing HSC | 40 | 75 | 30 | 60 | 73 | 60 | 30 | 70 |

Table 4.3 illustrates the percentage of cohort entering form 1 and successfully completing Higher School Certificate. Eight principals answered this question, and the average percentage came out to be approximately 55%.

3. To what extent do you agree or disagree with the statement, “There is a great deal of dissatisfaction with student achievement.”
Figure 4.2. The rate of dissatisfaction with student achievement.

This Likert scale question was set to teachers to get their opinion about the performance of their students. Figure 4.2 shows the rate of dissatisfaction with student achievement. Seventeen point twenty-four percent of the participants strongly agreed with the statement of the researcher that there is a great deal of dissatisfaction with student achievement, and 44.83% of the participants agreed with the researcher. On the other hand, 34.48% of the teachers argued that they are satisfied with the students’ achievement, and 3.45% of the participants were completely against the statement.

4. What measures have been taken to improve academic achievement? What strategies/models of management will you introduce?

Table 4.4

*Measures that have been taken and strategies to be introduced to improve academic achievement*

<table>
<thead>
<tr>
<th>Emergent themes</th>
<th>Number of times theme emerged</th>
<th>Quotes from Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nine year schooling</td>
<td>4</td>
<td>“Government implemented Swedish educational system”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Recently a new system of education has been adopted, which is the nine year schooling.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A system where no child will be rejected. There are three streams that will cater</td>
</tr>
<tr>
<td></td>
<td></td>
<td>for different abilities of students at different stages.”</td>
</tr>
<tr>
<td>Assessment</td>
<td>2</td>
<td>“Close monitoring of student progress. Assessment should be more continuous based than</td>
</tr>
<tr>
<td></td>
<td></td>
<td>final exams at the end of year.”</td>
</tr>
</tbody>
</table>
As can be seen in table 4.4, themes that have emerged from the qualitative analysis are:

| Involve parents in School vision | 2 | “Quarterly meetings with parents and teachers to discuss the school’s vision, the learning programs that would encourage students to focus on their educational goals and professional development courses for teachers to learn new concepts and ideas about education and to implement them in the traditional schooling.”
| | | “Redesign the school vitals in terms of its school vision and mission to bring in the participation of parents in schooling to follow up on their children's schooling.”
| Project based learning | 3 | “Bringing in project-based learning activities to give students hands-on experience to bridge theory to practice.”
| | | “Nationalize and diversify learning academics parallel with technical.”

Nine-year schooling, assessment, involving parents in school vision, and project-based learning.

Four of the principals mentioned the concept of nine-year schooling to improve academic achievement. One of the participant’s responses is, “Recently a new system of education has been adopted, which is the nine-year schooling. A system where no child will be rejected. There
are three streams that will cater for different abilities of students at different stages.” Two of the principals argued that continuous assessment should be done to closely monitor student progress. Principals also mentioned having “quarterly meetings with parents and teachers to discuss the school’s vision, the learning programs that would encourage students to focus on their educational goals and professional development courses for teachers to learn new concepts and ideas about education and to implement them in the traditional schooling.” One of the participant’s responses about project-based learning is, “Bringing in project-based learning activities to give students hands-on experience to bridge theory to practice.”

5. How would you keep up to date with the latest techniques/strategies to keep abreast in the management of the school to ensure improvement and promotion of learning?

Table 4.5

<table>
<thead>
<tr>
<th>Emergent themes</th>
<th>Number of times theme emerged</th>
<th>Quotes from Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social network</td>
<td>5</td>
<td>“Feedback from parents and social networks”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“By being in the same era of this continuous technology shift”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Keep connected with colleagues of other institutions. Look for updates”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Through websites and research articles.”</td>
</tr>
</tbody>
</table>
“Through online development platforms 2. Research articles that can be availed on line 3. Visiting the website portals of international organizations to keep abreast of development in education from a global perspectives”

<table>
<thead>
<tr>
<th>Professional development of teachers</th>
<th>4</th>
<th>“always upgrading my staff and my personal development through leadership courses”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>“Teachers at their own expense keep up to date with new techniques, as government or school management very rarely give opportunities to upgrade and update.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Short courses to be taken now and then to refresh the mind.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Continuous training of staff to be in line with New technology and New methods of teaching.”</td>
</tr>
</tbody>
</table>

| Student voice                         | 1 | “Students trends and mode. Join them with WHY and WHAT about their expectations.” |

This question was designed for the principals, and as demonstrated in table 4.5, five of them declared that they keep up to date through social networking to ensure the improvement and promotion of learning. Another theme that emerged from this analysis is the professional
development of teachers. One respondent asserted that what was needed was “continuous training of staff to be in line with new technology and new methods of teaching.” Finally, student voice was another theme that emerged from the data analysis. One participant argued that “students’ trends and mode. Join them with WHY and WHAT about their expectations.”

**Research Question Two**

How does leadership affect student learning? The second research question concerning leadership was broken into two sub-questions for data analysis purposes. The Likert scale questions are shown below.

1. How often have you engaged in the following practices at your school?
   - Engage teachers to take decision for change
   - Create a vision to bring about a drastic change in education
   - Your school leaders encourage sharing responsibility to achieve goals
   - You foster a school culture that is focused on instructional improvement
Figure 4.3. The rate at which principals were engaged in leadership activities.

Figure 4.3 illustrates the rate at which principals were engaged in leadership activities. Thirty-seven point five percent of the principals frequently created a vision to bring about a drastic change in education. The percentage of participants who sometimes and always created a vision showed an equal rate of 25%, whereas 12.5% never created a vision to bring about a drastic change in education.

The same percentage of principals (50%) frequently engaged teachers to take decisions for change and also encouraged sharing responsibility to achieve goals. Further, 37.5% of respondents sometimes and 12.5% always engaged teachers to take decisions for change. The figure also shows that an equal percentage (12.5%) never and sometimes encouraged sharing responsibility to achieve goals. The percentage who always encouraged sharing responsibility to achieve goals is 25%.
A high percentage of respondents (62.5%) were of the opinion that they frequently fostered a school culture that was focused on instructional improvement. Twenty-five percent always and only 12.5% sometimes fostered a school culture that was focused on instructional improvement.

2. What do you think about teachers as an agent of change in the education system?

Table 4.6

*Perspectives about teachers as an agent of change in the education system*

<table>
<thead>
<tr>
<th>Emergent themes</th>
<th>Number of times theme emerged</th>
<th>Quotes from Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most important agent</td>
<td>14</td>
<td>“Teachers are the lifeblood in the system. The ministry should integrate teachers in designing curriculum framework and policies related to education.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“It is a good idea as teachers deal with students daily.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Teachers are probably the most important agents in the educational process because they directly organize students’ learning experience.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Teachers build the next generation of leaders. The developmental role now is helping students to become self-learners. With the teacher not playing a passive role, but a very active change-agent role.”</td>
</tr>
</tbody>
</table>
Table 4.6 shows the perspectives about teachers as agents of change in the education system. The themes that emerged are “most important agent,” “agree but training required,” “teachers are not the only ones in decision making,” “teachers are policy followers,” and
“ineffective agent.” Nearly half of the respondents argued that teachers were the most important in the education system. Some of the responses are as follows:

“Teachers are probably the most important agents in the educational process because they directly organize students’ learning experience.”

“Teachers build the next generation of leaders. The developmental role now is helping students to become self-learners. With the teacher not playing a passive role, but a very active change-agent role.”

Some of the participants are of the opinion that teachers as agents of change is a good idea, but training is required and supports are needed from the ministry. Similarly, two respondents commented that teachers are not the sole participants in decision making. Five of the participants concurred that teachers are mere policy followers. “Sadly we have a top to bottom system where teachers are merely implementers of policies dictated to them.” On the other hand, three respondents argued that teachers are ineffective agents of change in the education system.

**Research Question Three**

What are the effects of school culture (learning environment, professional learning community, motivation, and personalized learning) on student learning? Research question three regarding the effects of school culture on student learning was also divided into sub-questions for simplicity.

1. To what extent do you agree or disagree with the following statement?
   - Teachers respond effectively to student diversity and make learning motivating and relevant to all students.
   - You are evaluated and/or rewarded on the basis of student achievement.
• Teachers at this school use well developed routines to communicate with parents on a regular basis.

![Figure 4.4. Effects of school culture on student learning.](image)

Figure 4.4 clarifies the effects of school culture on student learning. As can be seen from the figure, only 10.34% of the respondents strongly agreed that teachers respond effectively to student diversity and make learning motivating and relevant to all students, whereas a significant percentage (69%) agreed. Conversely, 21% of the participants disagreed with this statement. Fifty-five percent agreed that they were evaluated and/or rewarded on the basis of student achievement. The number of teachers who disagreed and strongly disagreed with the statement is almost similar, with an average of 23%.

The percentage of teachers at this school who do not use well-developed routines to communicate with parents on a regular basis is approximately 55%, of whom 10% strongly disagreed and 45% disagreed. On the other hand, 45% of the teachers use well-developed routines to communicate with parents on a regular basis, where 7% strongly agreed and 38% agreed with the statement.

2. How often do you engage in discussion about the learning development of specific students?
Figure 4.5. Rate at which teachers are engage in discussion about the learning development of specific students.

As shown in figure 4.5, 45% of the respondents engage monthly in discussion about the learning development of specific students, 38% 3-4 times a year, and 14% once a year. Three percent were not engaged in any discussion about the learning development of specific students.

3. How often

- do you build networks for connecting people and sharing information?
- are all parents encouraged to participate in decision-making processes and school improvement efforts?
Figure 4.6. Rate at which principals engage in the school activities.

It can be easily seen in figure 4.6 that there is an equal percentage (38%) of principals who never and who frequently encouraged parents to participate in decision-making processes and school improvement efforts, whereas 25% sometimes would do the same.

Half of the respondents frequently and 25% always built networks for connecting people and sharing information. Alternatively, an equal percentage (12.5%) of participants never and sometimes built networks for connecting people and sharing information.

4. How do you provide a happy environment for better learning?

Figure 4.7. How teachers provide a happy environment for better learning.

Figure 4.7 indicates how teachers provide a happy environment for better learning. Themes that emerged are motivation, friendly, comfortable, cheerful, pleasant, involving, jokes, funny, listening, and engaging.

5. What are your views on personalized learning based on students’ mindsets?

Table 4.7

Teachers’ views on personalized learning based on students’ mindsets
Table 4.7 illustrates teachers’ views on personalized learning based on students’ mindsets. Five respondent teachers asserted that personalized learning is time consuming and seven said that it is unrealistic with a large group of students. However, the majority were of opinion that it is a good approach.

6. What are effective strategies of ensuring each student is fully engaged and motivated in the school?

Table 4.8

*Effective strategies of ensuring each student is fully engaged and motivated in the school*
<table>
<thead>
<tr>
<th>Emergent themes</th>
<th>Number of times theme emerged</th>
<th>Quotes from Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listen to students’ voices</td>
<td>5</td>
<td>“making them part of their schooling”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Let students choose what they want to study. We must be aware of student expectation and value their ideas.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Care for students’ needs.”</td>
</tr>
<tr>
<td>Project-based learning and other activities</td>
<td>4</td>
<td>“Students should engage more on project-based learning.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Promote project-based learning as part of the school curriculum.”</td>
</tr>
<tr>
<td>New ways of assessment</td>
<td>1</td>
<td>“Find new ways of assessment.”</td>
</tr>
</tbody>
</table>

This qualitative question was set to principals, and table 4.8 displays the responses of the participants. Highly emergent themes that appeared were listening to students’ voices, followed by project-based learning and new ways of assessment.

**Research Question Four**

What are the best teaching practices that can promote student achievement? The following sub-questions were designed to help answer the fourth research question.

1. To what extent do you agree or disagree with the statement, “Students who fail to meet grade-level expectations are not promoted to the next grade.”
Figure 4.8. The rate at which teachers agree or disagree with the statement “Students who fail to meet grade-level expectations are not promoted to the next grade.”

As shown in figure 4.8, 72% of the teachers agreed and 3% strongly agreed with the statement of the researcher. Alternatively, only 21% disagreed and 3% strongly disagreed that students who fail to meet grade-level expectations are not promoted to the next grade.

2. How often do

- students use laptops/computers in your classroom?
- teachers use creativity and innovative thinking in the classroom?
Figure 4.9 illustrates that only 28% of the teachers used creativity and innovative thinking in the classroom. About half (52%) and 21% of the teacher respondents demonstrated that they often and seldom used creativity and innovating thinking in the classroom.

As indicated in figure 4.9, the percentage of students always using laptops/computers in classroom was relatively low (3%). The study showed that 52% never used laptops/computers. However, only 28% seldom and 17% of the students often made use of laptops/computers in the classroom.

3. Do you use formal (tests and examinations) or informal (observation and checking comprehension) assessments to promote and improve learning?
Figure 4.10. Survey response related to types of assessment used to promote and improve learning.

As shown in figure 4.10, most of the teachers (65%) used formal assessment, whereas only a few (7%) used informal assessment, and 28% of the teachers used both formal and informal assessment to promote and improve learning.

4. Do you provide feedback? How is feedback provided?

Figure 4.11. Survey response corresponding to feedback.

A significant number of teachers claimed that they provided feedback, as the word “Yes” appears large in figure 4.11. Themes that emerged while viewing the qualitative data were parents, monthly, verbally, writing, oral, meeting, test. A closer analysis shows words like praise, trimester, every time, regular, never, individually, always and conversations.

5. What learning models do you use?
Figure 4.12. Learning models used by teachers.

Figure 4.12 shows the data collected through the open-ended questions that asked teachers the learning models they used in the classroom. Themes that emerged large from the figure include demonstrations, constructivist, experiential, videos, face to face, discovery, real, role, discussion, and learner. The themes that appear smaller are cognitive, samples, evaluation, technology, power point, questioning, and blended.

6. How do you propose to improve teaching and learning at your school? What should be included in the area of curriculum?

Figure 4.13. Survey responses regarding curriculum.

This open-ended question was designed for principals, and figure 4.13 shows the quantitative data obtained after performing the survey. Careful analysis of the data shows the theme “projects” and “ICT” appear much larger. Other themes include creativity, holistic, interactive, presentations, real, motivate, and robotics.
Research Question Five

Do teacher attributes play a role in the promotion and improvement of learning? The aim of research question five was to determine whether teacher attributes contribute in the promotion and improvement of learning. The following sub-questions were set to analyze the data:

1. To what extent do you agree or disagree with the following statements?
   • All students can and should have a growth mindset.
   • You have very different expectations about what students can learn.

Figure 4.14. Qualitative responses regarding growth mindset and learning expectations of students.

Figure 4.14 clearly indicates that there is a considerably high percentage (72%) of teachers who agreed to the statement of the researcher, and 17.2% strongly agreed that students can and should have a growth mindset. A total of 10% of teachers believed that students cannot and should not have a growth mindset.

Forty-five percent of the teachers agreed and 14% strongly agreed that they have very different expectations about what students can learn. However, a total of 41% disagreed with the statement of the researcher.
2. How often do you engage in the following activities?
   - Participate in a network of teachers formed specifically for professional development
   - Attend education conferences or seminars

![Figure 4.15. Rate at which teachers are engaged in professional development.](image)

Figure 4.15 indicates the rate at which teachers were engaged in professional development. Out of 29 teachers, 31% commented that they had never participated in a network of teachers formed specifically for professional development, and the same percentage argued that they participated once every two years. Seventeen percent of the respondents participated three to four times a year, and 21% once a year.

According to the figure, almost half (48%) of the teacher respondents attended education conferences or seminars once a year and 28% three to four times a year. Seventeen percent claimed they never attended education conferences or seminars, and fewer (7%) attended once every two years.

3. How often do
• novice teachers have the chance to work with more experienced teachers at your school?

• you invest in the professional development of teachers?

Figure 4.16. Qualitative analysis regarding professional development of teachers.

This question was set to principals to get their views about how much they invest in the professional development of teachers. As illustrated in figure 4.16, an equal percentage (50%) of principals concurred that they sometimes and frequently agreed with the statement that novice teachers have the chance to work with more experienced teachers at their school.

A substantially high percentage (63%) of principals said that they sometimes invested in the professional development of teachers. Twenty-five percent frequently and only 12% out of eight principals did not invest in the professional development of teachers.

4. How can you develop a growth mindset in yourself, your teachers, and your students?
Figure 4.17. Methods of developing growth mindset.

After a careful analysis of figure 4.17, “continuous” was the largest word that appeared on the data. Other emergent themes are “vision” and “think” followed by even smaller words like encouraging, determination, motivated, praise, team, positive, feedback, performance, and skills.

Research Question Six

What are the factors teachers and principals are aware of in the promotion and improvement of learning? The last research question was about the factors that can promote and improve learning among students in Mauritius. Two sub-questions were designed to enable the researcher to ask the question.

Figure 4.18. Factors that can promote and improve learning among students.
To analyze figure 4.18, the researcher opted to transfer the results to a table for clarification.

Table 4.9.

*Factors that can promote and improve learning among students.*

<table>
<thead>
<tr>
<th>Factors that can improve and promote learning</th>
<th>Not at all important (%)</th>
<th>Somewhat important (%)</th>
<th>Important (%)</th>
<th>Very important (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student engagement and motivation</td>
<td></td>
<td></td>
<td>12.5</td>
<td>87.5</td>
</tr>
<tr>
<td>Qualification and experience of teachers</td>
<td></td>
<td></td>
<td>37.5</td>
<td>62.5</td>
</tr>
<tr>
<td>Teacher leadership</td>
<td></td>
<td></td>
<td>12.5</td>
<td>87.5</td>
</tr>
<tr>
<td>Social and emotional learning</td>
<td></td>
<td></td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>School climate/safety</td>
<td></td>
<td></td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>Instructional and transformational leadership</td>
<td></td>
<td></td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>Personalized learning</td>
<td></td>
<td></td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
<td></td>
<td>12.5</td>
<td>87.5</td>
</tr>
<tr>
<td>Use of growth mindset with students</td>
<td></td>
<td></td>
<td>12.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Environmental factors at home</td>
<td></td>
<td></td>
<td>37.5</td>
<td>62.5</td>
</tr>
<tr>
<td>Assessment and feedback</td>
<td></td>
<td></td>
<td>37.5</td>
<td>62.5</td>
</tr>
</tbody>
</table>
Table 4.9 indicates the factors that can improve and promote learning among students. According to the survey responses received from the principals, the most important factors were student engagement and motivation, teacher leadership, collaboration, professional development of teachers, and learning by doing, with a percentage of 87.5%, followed by school climate/safety and instructional and transformational leadership, with a percentage of 75%. Qualification and experience of teachers, environmental factors at home, assessment and feedback, and creativity showed a percentage of 62.5%.

1. What is the most important factor in improving student learning? What are the other factors for promoting and improving learning? Please list all.

Table 4.10

Factors for promoting and improving learning.

<table>
<thead>
<tr>
<th>Emergent themes</th>
<th>Number of times theme emerged</th>
<th>Quotes from Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>6</td>
<td>“Intrinsic motivation”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Reward system”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“A small dose of competition within the class can lead to better motivation too”</td>
</tr>
<tr>
<td>Category</td>
<td>Rating</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Assessment and Feedback               | 5      | “Continuous assessment”  
“Giving feedback”  
“make sure that learning has taken place effectively”                                                                                   |
| Teacher qualification                 | 6      | “teacher’s personality is also very important”  
“teacher effectiveness”  
“Effective teachers is the most important factor”  
“teacher needs to be excellent”                                                                                                           |
| Personalized learning                 | 10     | “To vary teaching strategies accordingly with the understanding or learning capacity of the class”  
“Strategies used must be students centered”  
“The individual attention is the primary factor”                                                                                            |
| Learning environment                  | 11     | “Discipline”  
“conducive environment for learning”  
“infrastructure smaller class size”                                                                                                        |
| Professional development of teachers  | 4      | “Ongoing training and new techniques of teaching”  
“Educational visits and seminars”  
“Opportunity and access for professional developments”                                                                                   |
| Parent involvement                   | 6      | “parent-teacher interactions”  
“Involvement and participation of parents”                                                                                                 |
| Technology                            | 5      | “Use technology to increase learning”  
“use of new technological facilities available”                                                                                           |
| Students background                   | 4      | “Students’ ability to learn”  
“students willingness to study”                                                                                                             |
This question was designed for teachers to obtain qualitative data to enable the researcher to answer the objective of the research study. Table 4.10 denotes the factors that can promote and improve learning. The two most emergent themes are “learning environment” and “curriculum differentiation” followed by “personalized learning.” Motivation, teacher qualification, and involvement of parents were also considered important for the teachers.

**Conclusion**

This research study revealed several substantial quantitative and qualitative results related to the improvement and promotion of learning among students in Mauritius. Chapter five will include a summary of the results in relation to the literature reviewed and a thorough discussion, implications, and suggestions for further research.
Chapter Five: Discussions, Conclusions, and Summary

Chapter Five consists of a summary of the research study of the factors that can improve and promote learning among students in Mauritius. The chapter engages a thorough discussion of the data obtained, implications of the study, and a direct link that connects the findings of the study with the literature reviewed. The findings of the research study also revealed aspects for further study and future suggestion.

Schools in Mauritius are facing unprecedented accountability. Reforms have been made, but there still exist some challenges for improving and promoting learning to achieve student success. Consequently, this research study aimed at finding the factors that could improve and promote learning among students in Mauritius. The study was done by gathering pertinent data from principals and teachers through online surveys and compiling information from the databases to analyze the results to have feedback about the factors that can improve and promote learning. The aim of the researcher was to obtain the perspectives and views of principals and teachers of public high schools in Mauritius. A literature review was undertaken to get a deeper understanding of the subject. Using the findings of the research study and literature review, this section will suggest steps to help solve the Mauritian education system. The next section will discuss the implications of the findings of each of my research questions.

Discussions and Conclusions

a. What are the issues of the education system and how are the schools keeping abreast with the 21st-century demands?

By setting this question, my aim was to have an overview of the Mauritian education system and to identify the difficulties and how the principals and teachers deal with the challenges. According to the World Bank (n.d.), there are severe shortcomings in the Mauritian
education system. There is a lack of human resources, unacceptable numbers of drop-outs, and students are failing due to the “one-size-fits-all” education system.

The result of the research study showed that a change is required in the Mauritian education system, as pointed out by all the principals surveyed. Moreover, respondents commented that the education system is too academic and competitive. Students are not given the opportunity to develop their creativity, and there need to be the right personnel in the right place to develop and manage policies. The study also proved that only 55% of the students entering form one are successfully completing the Higher School Certificate. More than half of the teachers’ responses concluded that there is a great deal of dissatisfaction with student achievement. Thus, these results confirmed what has been said by the World Bank (n.d.).

Odden (2007) commented that there can be a significant improvement in student learning when teachers use formative assessment to plan their teaching. Two principals mentioned that assessment is one of the strategies that can be used to improve academic achievement. Others suggested involving parents in the school vision and introducing project-based learning. This result confirms the findings of the film, *Most likely to Succeed* (Dintersmith & Whiteley, 2015), which showed that students learn better when they solve real-life problems.

The responses that principals gave for the question, “How are the schools keeping abreast with the 21st-century demands?” were to (a) invest in the professional development of teachers, (b) social network and (c) student voice. One respondent suggested “continuous training of staff to be in line with new technology and new methods of teaching.” The literature review showed that as Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009) noted, professional development emphasizes improving instructional practice by giving teachers new knowledge and techniques for assessing learning that will ultimately improve students’ learning. Other responses
to this statement were: “Keep connected with colleagues of other institutions. Look for updates.” and “Students’ trends and mode. Join them with WHY and WHAT about their expectation.” These responses tallied with Harvard Advanced Leadership Initiative (2014), which mentioned that leaders should do the following in order to solve the complex, numerous, and significant problems facing the education system:

a) Create a vision to bring about a drastic change in education.
b) Engage students and teachers to take ownership of change.
c) Invest in professional development for teachers.
d) Build networks for connecting people and sharing information.

School leadership should ensure that teachers and students can learn continuously and develop and become accustomed to changing environments, which indicates that better leadership may be an extremely cost-effective way to improve learning throughout all the schools. Thus, there is a huge investment for school improvement, especially for novice principals who need training, mentoring, and professional development to promote improved instruction.

b. How does leadership affects student learning?

Out of eight principals, more than half pointed out that they create a vision (intended) to bring about a drastic change in education. Fifty percent frequently engage teachers to make decisions for change and also encourage sharing responsibility to achieve goals. These findings demonstrate that principals engage in leadership activities frequently, which is in correlation with Harvard Advanced Leadership Initiative (2014). A high percentage of respondents (62.5%) are of the opinion that they frequently foster a school culture that is focused on instructional
improvement, corresponding to the research of the Wallace Foundation (2013, p. 6), which commented that principals today must be instructional leaders capable of developing a team of teachers who deliver effective instruction to every student.

The statement, “What do you think about teachers as agents of change in the education system?” yielded varied responses. Out of 29 teachers, 14 argued that teachers are the most important agents in the education system. Danielson (2006) pointed out that teacher leadership represents the highest level of professionalism, and teacher leaders play a significant role in the work of the school and in school improvement, thereby promoting student learning. Thus, this statement agrees with the research.

Others argued that teachers can be agents provided they get the necessary supports. This response correlates with Danielson (2007), who argued that good leadership skills such as curriculum planning, assessment design and data analysis have not been part of teacher preparation programs. Teacher leaders might also need to develop their listening skills and other leadership skills. A minority of the teachers affirmed that teachers are ineffective agents of change and teachers are merely policy followers.

In my opinion, teacher leadership has power over student learning, as teachers are experts in their profession and know their students’ needs better than anyone else. Teachers should be given much greater attention to make changes in education, as they make a difference in the lives of students. They should be leaders in educational transformation. Teachers can design the curriculum according to the requirements of their students. Thus, teacher leadership is an important factor to improve and promote learning.

Essential supports for teacher leadership are required, and teacher leaders should have flexibility, as each school’s leadership needs is different. It is imperative for every stakeholder to
support teacher leaders so that they can support students and promote and improve student learning.

However, according to the Mauritian Ministry of Education and Human Resources (2014), no emphasis has been put on teacher leadership. The government took the initiative of building leadership qualities only in the heads of schools. The bread-and-salt issue of the Mauritian education system, I believe, is the government. The Ministry of Education takes all the decisions and governs everything. It sets the principles, standards, and values that are considered suitable for how the school should function, the type of curriculum the students should focus on, and the assessment. The government of Mauritius is still using the traditional hierarchical decision-making process in which all the planning, research, and development of reform is done by the government. Teachers have little voice in the profession, and they do not have the right to run the education. They see themselves as having the least influence and power within the schools and educational system. They have few possibilities to lead and manipulate the policies, procedures, and programs. Teachers have few opportunities to improve professionally without leaving the classroom. It is not the ministers who are teaching the students. They do not know what is happening in the classrooms.

On the other hand, teacher leadership can cause a problem, especially in the context of peer reviews, when teachers give critical feedback to their colleagues. Some teachers might not accept negative feedback and criticism. Another issue is that sometimes there could be a lack of materials and tools support for teacher leadership, and they might face challenges and barriers to perform their assigned duties effectively. Some teacher leaders need support to fulfill their promise as leaders, as they do not have enough time for instructional leadership.
One more drawback of teacher leadership is ensuring that teachers perform as expected within the parameters specified as standards. Another point to take into consideration is how to prepare teacher leaders to reach their goals even though they are continuously developing as professionals.

c. What are the effects of school culture (learning environment, professional learning community, motivation, and personalized learning) on student learning?

Learning environment. The study showed that teachers provide a happy environment for better learning by motivating the students, adopting a friendly and cheerful approach, keeping a clean, well-organized classroom with vibrant pictures, and listening to each student and giving them the “floor” to talk.

A healthy, safe, and conducive learning environment is essential for students, as such an environment promotes innovation and reinforces and enhances the leadership competence in the school. It also increases academic achievement, and the students feel proud of being part of the school. A favorable classroom environment also allows students to learn and perform to their maximum capability. It is the role of the school leaders, staff, parents, and community members to promote a lively culture of learning among students. In this way, everyone demonstrates respect and builds healthy relationships. Students feel free to speak up about issues they are facing, and everyone is engaged in open and ongoing dialogue. Students are inspired and given support to excel in an environment of high expectations.

Professional learning community. Only 45% of the teachers use well-developed routines to communicate with parents on a regular basis. Henderson and Mapp (2002) asserted that conversations between parents and teachers should be more frequent and positive so that
parents can receive apparent and reliable information from schools on how to successfully contribute to their children’s learning.

On the other hand, the results of figure 4.5 show that 38% of principals never encouraged parents to participate in decision-making processes and school improvement efforts. This response is not in agreement with Lee and Bowen’s (2006) assertion that there should be dialogue between parents and schools to keep parents informed about curricula, courses, school rules, and assessments.

A considerable number of principals asserted that they build networks for connecting people and sharing information, which correlates with research done by Newmann and Wehlage (1995). “If schools want to enhance their organizational capacity to boost student learning, they should work on building a professional community that is characterized by shared purpose, collaborative activity, and collective responsibility among staff” (p. 37).

The main aspect of a professional learning community is that it consists of a group of teachers working together to set goals and usually share a common purpose. Everyone supports each other towards that goal. Professional learning communities value ongoing learning; they encourage and support members to examine their practice, to try out new ideas, and to reflect together on what works and why. They also provide opportunities for the collective construction and sharing of new knowledge to promote student learning.

However, professional learning communities are not just for teachers; everyone should be involved—students, teachers, principals, parents, administrators, and policymakers—and should be part of the learning community. The world grows stronger when people learn to improve together and work in a digital world supported by professional learning opportunities. We believe that learning communities can also provide tremendous benefits to school leaders seeking
to improve their professional practice and continue meeting the needs of the ever-evolving education landscape. Principals play a significant role in professional learning communities where they have to spend their time focusing on teaching and learning.

Teachers sometimes face difficulty collaborating with others due to organizational or diverse social reasons. Team meetings are usually not conducted well, and many teachers get frustrated, as everyone has his/her own perspective.

**Motivation.** Teachers were asked the question, “What are the effective strategies of ensuring each student is fully engaged and motivated in the school?” The responses for this statement were to listen to students’ voices. “Let students choose what they want to study. Teachers must be aware of student expectations and value their ideas.” Other teachers commented that students should be engaged more in project-based learning and teachers should find new ways of assessment. According to Ord (2012), first, students learn best when they are personally involved in the learning experience. Second, knowledge has to be discovered by the students if it is to have any significant meaning to them or make a difference in their behaviour, and third, students’ commitment to learning is highest when they are free to set their own learning objectives and are able to pursue them actively within a given framework.

When students concentrate on real learning and creative problem solving, they enjoy each new discovery. They are motivated to learn, as they know what they are learning and why it is important for them. I believe that this type of learning prepares the students more holistically for their future lives and jobs.

Motivation has a considerable effect on student learning. Students who are motivated are enthusiastic and willing to work hard and tackle any challenges. They do not need regular
encouragement and can even motivate their classmates, which in turn facilitates collaborative learning.

**Personalized learning.** A remarkable percentage of teachers agreed that they respond effectively to student diversity and make learning motivating and relevant to all students. The teachers’ view about this statement correlates with Paludan (2006), who asserted that personalized learning is an appropriate solution to the challenge of motivating and supporting students this century, and can lead to both personal and national economic benefits (p. 98).

As stated in the study, a high number of teachers are of the opinion that personalized learning is important; however, some respondents commented that it is time consuming, and some even mentioned that personalized learning is unrealistic with a large number of students. Meyer, Haywood, Sachdev, and Faraday (2008) argued that there are difficulties in implementing personalized learning in schools, mainly as teachers require new skills, as well as teachers’ beliefs about flexibility in teaching approaches and student grouping. Teachers should be provided with the necessary tools, resources, and strategies to support the implementation to be effective. But very often, all these tools are expensive, and the authority cannot afford to supply every school.

Personalized learning is one of the important factors to promote and improve learning. Teachers should focus on the curriculum to be able to identify transferable concepts that will be valuable and accessible to all students and promote their competence globally. Students can develop competencies like critical thinking and problem solving. They can be creative and innovative. Students have to engage and invest themselves in their learning to be able to succeed. Teachers should connect students’ learning to their lives and aspirations through authentic activities to be able to provide them with purpose and motivation to gain new knowledge and
skills. They have to be responsible for designing their own educational pathway as they develop; they are responsible for their own learning success, and they have to be independent learners.

d. What are the best teaching practices that can promote student achievement?

The study showed that only 28% of the teachers use creativity and innovative thinking in the classroom, and only 3% always use laptops/computers in the classroom. A significant number of teachers use formal assessment to test learning; feedback is given after each weekly assessment orally, and some even commented that they give feedback at the end of each course and trimester. Teachers in Mauritius use a wide range of learning models. However, the principals mentioned that the curriculum needs to be more project based, needs to introduce ICT in schools, and students should be given opportunities to develop psychomotor skills. Learning should be holistic.

Odden (2007) mentioned that there can be a significant improvement in student learning when teachers use formative assessment to plan their teaching. This is in agreement with teachers in Mauritius, as they are mostly using formative assessment. According to Ramsden (2003), feedback is a prime benchmark for effective teaching and a crucial requirement in meeting students’ expectations. However, Sadler (1989) concluded that feedback should be meaningful and given in time. Almost all teachers in Mauritius are giving feedback, but not in a timely manner.

Students can reflect on their learning by receiving feedback; they get the opportunity to assess their own skills and knowledge and eventually can improve in required areas. However, feedback should be an ongoing process and should take place before or after a learning activity, as the main importance of feedback is to support learning. Feedback should also be a two-way dialogue, which would be more effective.
The curriculum has to be appropriate to ensure that students are able to relate their learning experiences with the outside world. They should be able to develop such skills as decision making, critical thinking, and problem solving and life skills. The curriculum should be inclusive, integrated, and holistic, where it brings a significant shift from subject-centred to child-centred. It should make learning a meaningful and pleasant experience for students. The content should be more than just learning facts. Teachers should move away from the traditional teaching methods of using only textbooks to one where students learn by doing.

e. Do teacher attributes play a role in the promotion and improvement of learning?

A high number of teachers concurred that students can and should have a growth mindset, which is in alignment with research done by Boaler (2013), who stated the importance of students’ mindsets for learning is that when students believe that everybody’s ability can grow, their achievement improves significantly. The growth mindset fosters a love for learning and creates a positive attitude that accepts failure as a way to success.

In the future, students will need to work and collaborate with others, so practising these strategies of the growth mindset will help them. Significant benefits arise from the growth mindset. Students feel responsible to the group to try their best, and therefore will experience the positive feedback loop of effort and success. In this way, the students encourage the development of a growth mindset. Students with a growth mindset are more motivated to learn and exert effort, and outperform those with a fixed mindset. They feel more empowered, and their levels of success, attendance, and motivation increase. Especially, teachers can convince and motivate low performance students that their ability can grow. They develop feelings of empowerment and they begin to see how they might take action to positively influence their own learning. Teachers
incorporating a growth mindset can collaborate with their colleagues and feel more motivated to work.

One of the factors to promote learning is the growth mindset; but in reality, it is difficult to change the mindset of people. I believe it will take time for people to adapt to a new environment and new ways of teaching and learning. On the other hand, to improve student achievement, there needs to be a meaningful change in the way teachers teach the students. There should be more professional development related to the growth mindset, as not every teacher can foster a growth mindset in students. Other challenging issues teachers might face are learning how to make the students believe they can perform successfully and how to teach them to make the effort. The culture of the education system should change, and to achieve this requires a different mindset in general.

Thirty-one percent of teachers claimed that they never participated in a network of teachers formed specifically for professional development, and 17% have never attended education conferences or seminars. Fifty percent of principals concurred that novice teachers have the chance to work with more experienced teachers at their school. There still exist some principals who do not invest in the professional development of teachers.

In my opinion, teachers require new skills and new ways of learning. They have to be engaged in professional learning and focused on instructional improvement so as to better engage their students in meaningful learning. Technology is the backbone of teaching and learning today, and teachers should have the ability to use new technologies in the classroom to meet the demands of 21st-century students. Teachers should be innovative, knowledgeable, and wise to be able to engage and inspire their students. They should shift from rote learning to student-centred learning. To ensure that every teacher has 21st-century skills, the government
should provide ongoing professional learning throughout the school year so that the teachers get engaged regularly and become empowered professionals. They also need to receive respect to be able to be leaders of the process of change.

They need to collaborate with other teachers in creating new teaching methods. Learning is a master skill and a passion for teachers. The best teachers are always in the process of skill and character development. No matter how good a teacher is, he or she can always get better. To make the learning effective for teachers, training and practice are essential. It is essential that teachers are able to develop new practices and refresh throughout their teaching careers by participating in professional learning development.

Principals should change their mindset about the way they think about professional development. Professional development will not occur in a one-day workshop or by making a quick effort. Learning takes time and should be lifelong. Implementing all these strategies, including enough time, might be a challenge; but with much effort, student learning will improve.

f. What are the factors teachers and principals are aware of in the promotion and improvement of learning?

According to the principals, the most important factors that can promote and improve learning are: a) motivation, b) teacher leadership, c) professional learning community, d) professional development of teachers and e) curriculum differentiation. Alternatively, teachers mentioned a) learning environment, b) curriculum differentiation, c) personalized learning, d) motivation and e) teacher qualification.
Summary

Based on my personal experience, the analysis of the literature review and the results of the present study, the most important factors that can promote and improve learning among students in Mauritius are as follows:

- Teacher effectiveness
- Personalized learning
- Motivation
- Instructional and transformational leadership

The most important element of any school is the teacher, and effective teaching is one of the most important factors for school improvement because, according to research, it has the largest impact on student learning. Effective teachers usually have clear instructional goals and are knowledgeable about the content of the curriculum and their students. They cater for individual needs by implementing desired changes so that all students succeed. Teachers should also provide valuable feedback and enhance the confidence and interest of the students in learning. Efficient teachers have always been the means to student success.

Above all, teachers who are highly trained and have professional expertise are needed to foster the skills, knowledge, and competencies that students will require to succeed. The role of an efficient teacher should change progressively to that of a guide and mentor, and focus more on helping students learn how to learn rather than on mere content and information.

Limitations

Even though the research study has been successful, there were some unavoidable limitations. First, the research was conducted only in public high schools in Mauritius; the study could have gained more accurate results if the researcher could have involved private high
Second, as the survey was confidential and anonymous, the researcher could not seek demographic information such as age and level of education and experience. It is known that the achievement of students depends on the education and experience level of teachers and principals. More experienced teachers and principals are in a better position to take a decision in the education system.

Third, the findings from principals and teachers did not exactly correlate with each other. According to the principals, the most important factors that can promote and improve learning are: a) motivation, b) teacher leadership, c) professional learning community, d) professional development of teachers, and e) curriculum differentiation. Alternatively, teachers mentioned a) learning environment, b) curriculum differentiation, c) personalized learning, d) motivation, and e) teacher qualification. I believe that only one type of survey questionnaire should have been designed instead of two different ones.

A further limitation of the research study might be political influence, as the survey was done only in public schools. It is possible that mostly principals could not have participated in the survey or were influenced in the responses of the survey.

Suggestions for Further Research

Based on the findings of the study, the respondents mentioned introducing technology in schooling, encouraging more creativity, and giving students a voice. To be able to thrive in this 21st century, students need to be innovative and creative. When students get the agency, they feel more supported, appreciated, and connected to the school community. These can have a
The title, “Factors that Can Promote and Improve Learning among Students in Mauritius” is a broad subject. Getting feedback from only principals and teachers cannot make a significant difference in the education system. I believe that administrators, parents, students, and the community also have roles to play in the education system for better student achievement. Thus, further research needs to be done to gather the views and perspectives of administrators, parents, students, and the community to confirm this. Everyone should be given a voice to be able to deduce the similarities and differences indicated in the research study.

**Implications**

There are some implications associated with making all these changes in the education system. Change requires funding; there need to be appropriate human resources and fiscal resources. The traditional approach to teaching is more economical. Another point to take into consideration is how teachers can ensure that students are making good use of technology in the classroom. Professional learning communities work best when schools have a culture that supports collaboration and staff’s have shared beliefs and behaviors. Sometimes staff will not have time to meet, and collaboration cannot be forced. Teachers will probably encounter transitional difficulties when implementing personalized learning. The type of new teacher training content, models, and methods to be used for implementing learning innovations have to be taken into account. Other fundamental questions to think about are how teachers should be encouraged to create a new teaching and learning culture in schools, and how the growth of teachers as lifelong learners should be supported in the future.
Conclusion

In my opinion, principals and teachers are key to the promotion and improvement of learning in any educational system. They are required to promote supportive environments, foster reflection, encourage risk taking, and challenge the status quo when it comes to student learning. They are also responsible in making sure that the students are ready to thrive in this rapidly changing world. To achieve this, they should be involved in lifelong learning for their professional development where they can promote autonomy, innovation, and reflection. They need to focus on personalized learning and the quality of teaching and learning. Learning should be more flexible and of high standards. Students are more willing to learn when they clearly understand their learning goals. Such goals help the students make sense of their work, and they find an identity for themselves and develop their own talents and inspirations within the context of their work. The key responsibilities of principals and teachers to promote learning among students are shaping a vision of academic success for all students by adopting a growth mindset, creating a climate conducive to education where everyone collaborates for the success of the students, and improving instruction to allow teachers to teach at their best and students to learn to their utmost.

In the end, the ultimate goal of any education system is to improve student achievement and provide a quality education with all the norms, values, and cultures embedded. However, people’s mindsets regarding schooling, teaching, and learning should change. Everyone should be involved, whether one is a student, a teacher, a parent, an administrator, or a policymaker, and be part of the change. The world grows stronger when people learn to improve together and work in a digital world supported by professional learning opportunities.
References

Allen, R. (2017, March 4). *The role of research in BC’s education transformation*. Keynote speech at the Education Research Conference, Vancouver Island University, Nanaimo, BC.


Armander, F. (2013). *We are all leaders: Leadership is not a position, it’s a mindset*. Chichester, UK: Capstone.


Appendix A

Factors that Promote and Improve Learning among Students in Mauritius.

A Study of the Factors that Promote and Improve Learning

Principal Investigator
Sharmila Boodhoo, Student
Master of Education in Educational Leadership
Vancouver Island University
sharmila654@yahoo.com

Student Supervisor
Nicole Day, PhD.
Department of Education
Vancouver Island University
Nicole.Day@viu.ca

I am a student in Master of Education in Educational Leadership at Vancouver Island University (VIU). My research, entitled “Factors that Promote and Improve Learning among Students in Mauritius,” aims to identify the issues of the education system and the factors that will help students be successful in Mauritius. My goal is to enhance the education system and standard of schools in Mauritius. I believe the findings of the research will contribute to my understanding of this subject and benefit the education family in Mauritius.

You will be asked to complete an online survey. Your participation would require approximately 35 minutes of your time. If you agree, you would be asked questions concerning your personal experiences as a Principal. How can you support a safe and conducive learning environment? How will you ensure that teachers continue to grow as professionals? How would you work with your staffs to realize change to promote learning?

The research poses only a very small risk of harm to participants like loss of privacy. SurveyMonkey stores information in the United States and is therefore subject to the US Patriot Act. For information about SurveyMonkey privacy policy, see https://www.surveymonkey.com/mp/policy/privacy-policy/
Your responses will be anonymous and treated with the utmost confidentiality and you will not be identified. Only my supervisor and I will have access to the information. All the data will be stored on a password-protected computer.

I will download and delete all survey data from SurveyMonkey servers soon after project data collection has been completed, approximately May 31st, 2018. I will not collect any identifying information such as Internet Protocol (IP) address. Privacy will be maintained to the degree permitted by the technology, and thus no guarantees can be made regarding the interception of data by any third parties while data is transmitted across international borders.

The results of this study will be published in my Master’s thesis, and may also be used for presentations, and published in peer-reviewed journals.

Your participation is completely voluntary and withdrawal is only possible up to the time you submit the online survey.

I, Sharmila Boodhoo, promise to adhere to the procedures described in this consent form.

Principal Investigator Signature: Sharmila Boodhoo  Date: 12/20/17

If you have any concerns about your treatment as a research participant in this study, please contact the VIU Research Ethics Board by telephone at 250-740-6631 or by email at reb@viu.ca. I hope you will participate in this important exercise and I take this opportunity to thank you in advance for your participation and opinions.

1. I have read and understand the information provided above, and hereby consent to participate in this research

☐ Yes

☐ No
2. How important are the following factors to improve and promote student learning?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not at all Important</th>
<th>Somewhat Important</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student engagement and motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualification and experience of teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Emotional learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School climate/safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructional and Transformational Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalised learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of growth mindset with students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental factors at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment and Feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Development for Teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum Differentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning by doing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. How often have you engaged in the following practices at your school?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice teachers have the chance to work with more experienced teachers at your school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engage teachers to take decision for change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invest in professional development of teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Build networks for connecting people and sharing information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create a vision to bring about a drastic change in education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your school leaders encourage sharing responsibility to achieve goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You foster a school culture that is focused on instructional improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All parents are encouraged to participate in decision making processes and school improvement efforts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. What is the percentage of the cohort entering form 1 and successfully completing HSC

5. What measures have been taken to improve academic achievement? What strategies/models of management will you introduce?

6. What are effective strategies of ensuring each student is fully engaged and motivated in the school?

7. How do you propose to improve teaching and learning at your school? What should be included in the area of curriculum

8. Are there any barriers in performing your duties in an efficient and expeditious manner?

9. How would you keep up to date with the latest techniques/strategies to keep abreast in the management of the school to ensure improvement and promotion of learning?
10. What is the ideal environment for improving and promoting learning? What support would you need and from where?

11. How can you develop a growth mindset in yourself, your teachers and your students?

12. What do you think about teacher leadership to improve and promote learning?

13. What is your overview of the Mauritian Education system? Do you think change is required?
Appendix B

A study of the Factors that Promote and Improve Learning among Students in Mauritius

Principal Investigator
Sharmila Boodhoo, Student

Student Supervisor
Nicole Day, PhD.

Master of Education in
Educational Leadership
Vancouver Island University

Department of Education
Vancouver Island University

sharmila654@yahoo.com
Nicole.Day@viu.ca

I am a student in Master of Education in Educational Leadership at Vancouver Island University (VIU). My research, entitled “Factors that Promote and Improve Learning among Students in Mauritius,” aims to identify the issues of the education system and the factors that will help students be successful in Mauritius. My goal is to enhance the education system and standard of schools in Mauritius. I believe the findings of the research will contribute to my understanding of this subject and benefit the education family in Mauritius.

You will be asked to complete an online survey. Your participation would require approximately 35 minutes of your time. If you agree, you would be asked questions concerning your personal experiences as a teacher.

The research poses only a very small risk of harm to participants like loss of privacy. SurveyMonkey stores information in the United States and is therefore subject to the US Patriot Act. For information about SurveyMonkey privacy policy, see https://www.surveymonkey.com/mp/policy/privacy-policy/

Your responses will be anonymous and treated with the utmost confidentiality and you will not be identified. Only my supervisor and I will have access to the information. All the data will be stored on a password-protected computer.

I will download and delete all survey data from SurveyMonkey servers soon after project data collection has been completed, approximately May 31st, 2018. I will
not collect any identifying information such as Internet Protocol (IP) address. Privacy will be maintained to the degree permitted by the technology, and thus no guarantees can be made regarding the interception of data by any third parties while data is transmitted across international borders.

The results of this study will be published in my Master’s thesis, and may also be used for presentations, and published in peer-reviewed journals.

Your participation is completely voluntary and withdrawal is only possible up to the time you submit the online survey.

I, Sharmila Boodhoo, promise to adhere to the procedures described in this consent form. Principal Investigator Signature: Sharmila Boodhoo Date: 12/20/17

If you have any concerns about your treatment as a research participant in this study, please contact the VIU Research Ethics Board by telephone at 250-740-6631 or by email at reb@viu.ca. I hope you will participate in this important exercise and I take this opportunity to thank you in advance for your participation and opinions.

1. I have read and understand the information provided above, and hereby consent to participate in this research

☐ Yes

☐ No
2. How often do you do the following in your school to promote and improve learning? Please mark one choice in each row.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once a year</th>
<th>3-4 times a year</th>
<th>Monthly</th>
<th>Everyday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop school curriculum or take part of it</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Engage in discussion about the learning development of specific students</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Participate in a network of teachers formed specifically for the professional development</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Attend education conferences or seminars</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The principal compliments teachers for special effort or accomplishment</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Students use laptops/computers in your classroom</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Use creativity and innovative thinking in your classroom</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Praise students for their effort</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
3. To what extent do you agree or disagree with the following statements:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are encouraged to develop a teaching style that is adapted to your own strengths and preferences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You have very different expectations about what students can learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students who fail to meet grade-level expectations are not promoted to the next grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a great deal of dissatisfaction with student achievement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You are evaluated and/or rewarded on the basis of student achievement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers at this school use well developed routines to communicate with parents on a regular basis.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers respond effectively to student diversity and make learning motivating and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. How is assessment used to promote and improve learning? Are these assessments formal (tests and examinations) or informal (observation and checking comprehension)?

5. What are your views on personalized learning based on students' mindsets?

6. What learning models do you use?

7. What is the most important factor in improving student learning? What are the other factors for promoting and improving learning? Please list all.

8. What do you think about teachers as an agent of change in the education system
9. Do you provide feedback? How feedback is provided?

10. How do you provide a happy environment for better learning?