

الجامعة
البريطانية في
دبي



The
British University
in Dubai

**Effective Curriculum Implementation for Optimal
Teaching and Learning Experience
A study conducted in a private school in Dubai**

تطبيق المناهج بشكلٍ تفاعلي على وجه أمثل
تجربة التدريس والتعلم

by

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**Dissertation submitted in fulfilment
of the requirements for the degree of
MASTER OF EDUCATION**

at

The British University in Dubai

January 2022

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Abstract

Curriculum reforms are planned to elevate the standard of education to benefit learners and educators. However, if the innovations and changes are not comprehended and internalized correctly, they often remain merely written documents to be implemented with incomplete practices. This calls for effective strategies to mitigate the problems and enhance proficiency in education by exerting prudential solutions. For this reason, the research area of this study is one of the private schools in Dubai, facing the same issue of implementing the reformed curriculum. The study aims to identify the barriers and provide remedies for effective curriculum implementation. While exploring the concept, the researcher came across literature discussing change models and approaches that facilitate curriculum reform. And the opinions of other researchers about the role and responsibilities of different stakeholders to make the process seamless. In order to take benefit from these studies, the researcher has included an overview of their findings. In relation to the structure of the study, the identified barriers from literature are divided into three categories: students, teachers, and management. An online survey was executed with 150 teachers of the same school to gain their insight on the subject. Besides, 15 heads were interviewed to see the similarities and dissimilarities in their opinions from teachers. For this reason, the study has adopted the mixed-method framework to trace the convergence and divergence in the findings. The online survey has helped gather quantitative data, which was further analyzed by statistical methods. In addition, Qualitative data was collected through interviews, and thematic analysis was executed to interpret their responses. Finally, the join display chart format is employed to check the similarity and dissimilarity in their opinions.

The findings inform that both stakeholders share the same philosophy for most of the construct except a few. It was identified that heads are giving substantial significance to the teachers' curriculum knowledge and need for professional development. Also, they want higher management to think in this line. In contrast, teachers have shown inconsistency in their responses for both constructs and highlighted the issue of workload. To this end, the study suggests higher-level management develop concrete and meaningful policies to overcome the barriers.

الملخص

تم التخطيط لإصلاح المناهج لرفع مستوى التعليم لإفادة المتعلمين والمعلمين. ومع ذلك ، إذا لم يتم استيعاب الابتكارات والتغييرات واستيعابها بشكل صحيح ، فإنها غالباً ما تظل مجرد مستندات مكتوبة يتم تنفيذها بممارسات غير كاملة. وهذا يستدعي استراتيجيات فعالة للتخفيف من حدة المشاكل وتعزيز الكفاءة في التعليم من خلال ممارسة الحلول الاحترافية. لهذا السبب ، فإن مجال البحث في هذه الدراسة لإحدى المدارس الخاصة في دبي ، والتي تواجه نفس مشكلة تطبيق المناهج المعدلة. تهدف الدراسة إلى التعرف على العوائق وتقديم الحلول لتطبيق المنهج بشكل فعال. أثناء استكشاف المفهوم ، صادفت الباحثة مؤلفات تناقش نماذج التغيير والأساليب التي تسهل إصلاح المناهج. وكذلك آراء الباحثين الآخرين حول دور ومسؤوليات مختلف أصحاب المصلحة لجعل العملية سلسلة. من أجل الاستفادة من هذه الدراسات ، قامت الباحثة بتضمين لمحة عامة عن النتائج التي توصلوا إليها.

فيما يتعلق بهيكل الدراسة ، تنقسم العوائق التي تم تحديدها من الأدب إلى ثلاث فئات: الطلاب والمعلمين والإدارة. وتم إجراء استطلاع عبر الإنترنت مع 150 معلماً من نفس المدرسة للتعرف على رؤيتهم للموضوع. بالإضافة إلى ذلك ، تم إجراء مقابلات مع 15 من رؤساء الأقسام لمعرفة أوجه التشابه والاختلاف في آرائهم مع المعلمين. لهذا السبب ، اعتمدت الدراسة إطار الطريقة المختلطة لتتبع التقارب والاختلاف في النتائج. ساعد الاستطلاع عبر الإنترنت في جمع البيانات الكمية ، والتي تم تحليلها بشكل أكبر من خلال الأساليب الإحصائية. بالإضافة إلى ذلك ، تم جمع البيانات النوعية من خلال المقابلات ، وتم إجراء تحليل موضوعي لتفسير ردودهم.

أخيراً ، يتم استخدام تنسيق مخطط العرض المشترك للتحقق من التشابه والاختلاف في آرائهم. تشير النتائج إلى أن كلا الفريقين يشتركان في نفس الفلسفة لمعظم الهيكل باستثناء القليل منهم. وقد تم تحديد أن الرؤساء يولون أهمية كبيرة لمعرفة المعلمين بمناهجهم وحاجتهم إلى التطوير المهني. كما أنهم يريدون أن تفكر الإدارة العليا في هذا الخط. في المقابل ، أظهر المعلمون عدم اتساق في ردودهم لكل من الترتيبات وسلطوا الضوء على قضية عبء العمل. ولتحقيق هذه الغاية ، تقترح الدراسة أن تقوم الإدارة العليا بتطوير سياسات ملموسة وذات مغزى للتغلب على العوائق. علاوة على ذلك ، خلال الدراسة ، أدرك الباحث أن إدراج المزيد على

مدرسة واحدة كانت ستعزز صحة البيانات ؛ لذلك ، يُقترح فحص الموضوع باستخدام عينة كبيرة من السكان

Dedication

To my beloved better half, Shuja Haque, for his immense patience and love. It would not have been possible without his unwavering support. Thanks for being my best friend always.

To my dearest children, Waiz and Mawhid, for their unconditional love and support from managing their needs, working alone, and taking care of me while working on my dissertation.

To my father-in-law, Zia Ul Haque, for always encouraging and believing in me beyond my capacity.

To my mother and father, whose affection, care and prayers of day and night make me get such success and honour.

Acknowledgement

Firstly, I thank Al-Mighty Allah for accepting all my prayers and providing me with the strength and ability to understand, learn, and accomplish the course.

Secondly, I am highly indebted to Dr Solomon Aluraj David for his guidance and constant supervision for providing necessary information and support in completing the dissertation. His advice and valuable feedback refine my work at every phase.

Thirdly, I would like to express my gratitude to my dear friend Tasneem for her unconditional support, without which I would not have completed my dissertation on time. My thanks and appreciation also go to my colleagues to share their valuable insight through meaningful responses during the data collection process.

Finally, I would like to thank and appreciate the efforts of the library staff for their constant support throughout the pandemic, from serving my queries solving problems to providing every single book and paper within a few hours. Their excellent instant response made my dissertation journey seamless.

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List of Abbreviation

MM- Mixed Method

M- Mean

SD- Standard Deviation

Q - Questions

RQ- Research Question

LR- Literature Review

Chapter 1: Introduction

1.1. Overview of the Chapter

In the first place, the chapter informs about the history of education in the UAE. It talks about how self-centred traditional practices transformed into formal education by enduring four different educational development stages. It also informs about the transition from religious values to more comprehensive knowledge-based education. Then, the researcher highlighted how the UAE government is persistent in progressing in the UAE schools' curriculum and why there is a need to renew the old practices of UAE schools and match them with the latest trends of 21st-century skills. Lastly, the chapter includes the study's rationale, problem statement, research questions, methodology, and overview of the other 4 chapters.

1.2. History of Education in the United Arab Emirates and need for curriculum reform

The United Arab Emirates was legitimately recognized as one nation in 1971 with the association of six of seven Emirates. The seventh Emirates, Ras Al Khaimah, entered the association in 1972 (Smith, 2004). The existence of the educational system was evident before the association in an alternate form of education. The culture emphasized the self-education system on the ground of religious teaching and absorption of knowledge through interaction with peers and more knowledgeable individuals. Knowledge was passed from one generation to another by oral and written context. However, soon apprenticeships were deemed as the best way of transferring distinct skills. Along with the traces of the traditional education system and beneficial relationship between teacher and student was getting popularity. Subsequently, traditional paradigms evolved into formal educational practices in four educational development stages:

1) Mutawa and Katateeb

Mutawa is another title for the mosque's imam, who taught young boys and girls the Quran and hadiths of Prophet Muhammed (PBUH). He was considered the most honourable person who imparted the difference between right and wrong path and protected people from deviating from moral and religious values. The knowledge of reading, writing and mathematics was delivered in the mosque or at his home. Lecturing and repetition of

concepts were the primary way of teaching. Subsequently, prosperous families would prefer a Katateeb. Katateeb was a physical learning centre or school where learners were taught Holy Quran, reading, writing and basic mathematics. In those days, Katateeb bore a resemblance to today's primary schools with teachers and resources.

2) Educational Circles

Educational circles were similar to the traditional classrooms where teachers would deliver the lesson to a group of students following the lecture method. The educational circles were run by esteemed knowledgeable scholars who possess a deeper understanding of religion, linguistics, and other related content. Although they taught the same subjects as Mutawa, their lectures profoundly impacted learners due to intense knowledge. Earlier known as Julpher, the hub of international trading, Ras Al Khaimah was the home of most educational circles.

3) Semi-organized Education

Semi-organized education system existed from 1907 to 1953 and was then eclipsed by the beginning of the first world war in 1914. Later, by the end of the war, school development had embarked in many regions of the country. Consequently, the increased significance of education led to many schools around the Emirates. The quality of schools was deemed by the knowledge level of the educators, deeply influenced by the teachings of Saudi Arabia.

4) Modern Education System

Schools under this stage were considered as the founding stone of new generation schools. The first modern school was established in Sharjah in 1930, followed by Ras Al Khaimah in 1955 and then Dubai in 1956. These schools were following the Kuwaiti Curriculum under the supervision of the Kuwaiti government.

1.3. Motivation to the study

The UAE education sector is experiencing a substantial and constant revolution in curricula. The progress of new artificial intelligence and contemporary technologies challenges our traditional practices. Hence, the school community entails skills to implement the curriculum with fidelity. The pursuit of evolving school curricula by the UAE government is based on two factors. First,

the advancement of artificial intelligence and contemporary technologies are challenging our traditional conception of work. Secondly, the boom in globalization demands migration and therefore increasing diversity, shaping a country's economy. As a result, the scale of revolution in the world and the need of acquiring 21-century skills by youth to enable critical thinking and higher-level skills are apparent. Nevertheless, the concepts and modes offered by previous curricula were found insufficient. Consequently, the education ministry is dispassionate in creating a curriculum that yields diversities, dichotomies and contradictions in society and is determined to establish an advanced and internationally competitive curriculum.

Moreover, the curriculum of the UAE schools entails renewal and reform to instil critical thinking, contemporary skills, values, and principles in the new generation to deal with the known and unknown future challenges of an ever-evolving environment. Additionally, curriculum implementation needs to be evaluated to identify best practices and challenges. This can be done by determining what kind of problem teachers and students face so that school management can support them in attaining better outcomes.

1.4. Statement of the Research Problem

In one of the private schools of Dubai, curriculum reforms implemented over the years are adversely affecting the school environment. Educators feel that acquainted strategies are better than paying lip service to the innovations. The thought advocated that the conception of teachers and departmental heads about the merits of reform is substantial as they are the ones who brought construct into existence. The researcher has delineated several factors that inflict successful curriculum implementation in the coming chapters. In correspondence to this background, the following aim of the study is formulated.

1.5. Purpose and objectives

The study aims to investigate the challenges faced by departmental heads and educators regarding curriculum implementation to address the problems and derive strategies for optimum teaching and learning experience. To attain the aim of the study, the researcher has focused on the following objectives:

- 1) To identify the challenges teachers face in implementing the enhanced curriculum.

- 2) To identify the barriers related to students from the leaders and teachers' perspectives.
- 3) To identify the problems related to school management in curriculum implementation.
- 4) To delineate the best possible measures to optimize teaching and learning experience

1.6. Research Questions

The research will examine:

Main Question

- 1) What are the barriers to curriculum implementation that hinder optimal teaching and learning?

In order to obtain the result, the research is supported by the following sub-questions:

- 1) What are curriculum implementation problems related to students?
- 2) What are curriculum implementation problems associated with teachers?
- 3) What are curriculum implementation problems related to school and management?

1.7. Rationale for the study

The study aims to investigate the challenges faced by departmental heads and educators regarding curriculum implementation to address the problems and derive strategies for optimum teaching and

learning experience. The researcher believes that exploring the barriers faced by educators and school

management in implementing the curriculum will assist the school in the following ways:

1. The research will uncover the perspective of the educators and departmental heads on the problems of curriculum implementation.

2. The study will reveal the similarities and dissimilarities between educators and departmental head thinking patterns regarding the same phenomena.
3. The school stakeholders policymakers will use the findings to restructure their implementation strategies.
4. The research will highlight the barriers and postulate strategies that facilitate educational bodies to overcome the challenges of curriculum execution.
5. Other schools will use the findings to improve their implementation process.
6. The study will also provide guidelines for future researchers to use the findings as a solid base to conduct potential studies in the ever-evolving education system.

Chapter 2- Literature Review

2.0 Overview of the chapter

The relevant literature reviews presented in this chapter are the grassroots to the study. The section articulated the views of different researchers and educationists on the complexity of curriculum implementation. In addition, the chapter covers the components like the curriculum model, curriculum approaches, curriculum development, curriculum implementation and the role of an educational community.

2.1 Conceptual Framework

2.1.1 Definition of Curriculum

Education is a systematic, thoughtful, and continuous effort to develop and diffuse information, ideas, skills, and attitudes. There must be a plan to guide that process, and the term 'curriculum' refers to that plan (Saylor et al.1981)

2.1.2 Significance of Curriculum

The study of the curriculum is dynamic and crucial for the health of the education system and society. Over the past century, the challenges facing the education system and teachers continue to escalate. Society has required the school to educate learners for a complex set of social and knowledge-based economic realities where the demand for high-level skills will substantially continue to be intensified. It is undeniable that providing a conducive curriculum will yield the generation of pioneering and skilled citizens. To that end, the curriculum must be conceptualized holistically where significance is not given only what is to be taught but also how it should be taught and assessed. Without a comprehensive approach, the curriculum will be understood solely as a written document or textbook content.

2.1.3 Curriculum Development

Education aims to provide learners with knowledge and skills, and curriculum is a backbone of education as it acts as a road map to achieve targeted objectives; therefore, appropriate curriculum

design is paramount for delivering knowledge and skills (Bounds 2009). The need to respond to the growing changes in society and the world entails a positive environment and learner-centred quality curriculum. Hence, designers should focus on curriculum designing objectives, strategies, materials, and evaluation techniques and systems. These guiding principles ascribe to the general education curriculum; however, when it's universally applicable, they must meet the need of all learners, including those with disabilities (Njogu, 2012). Madhukwini (2016) emphasises that the curriculum that complies with social, cultural, local conditions and prior knowledge is easier to deliver and susceptible to acceptance.

Moreover, since value education is about imparting skills and identifying the full potential in one-self and efficacy to apply those skills for the betterment of self and others, the curriculum development task becomes more demanding (Dewey, 1918,1966; Miller & Seller, 1985). Students who are resilient and adapted to many contexts and situations are more likely to develop competencies for a tempestuous world (Pacheo, 2000). Undoubtedly, the philosophy and practical application of curriculum development have been in hot discussion and will continue to be debated in education because there are multiple definitions and explanations of the word curriculum and its design approaches. Although the terms curriculum and education are defined and understood variably, they are interconnected and inseparable in implementation. Therefore, developing a suitable education plan is a bedrock for high-standard programs and amenities. Furthermore, providing education is about the holistic development of a person; hence the approach to curriculum management (developing, implementing, and evaluating) aims to inculcate resilience and perseverance in learners as a whole person (Fish, 2013).

Additionally, the curriculum development process involves passing various stages and revisiting after a certain period delineated by the education institute. Ornstein and Hunkins (2009) asserted that "curriculum development covers the process of curriculum planning, implementing, and evaluating and includes the participant, process and procedures. Therefore, possessing a map as an exemplary curriculum perhaps underpin curriculum developers to involve a comprehensive and systemic approach to this challenging and demanding process (O'Neil,2010). Moreover, while developing a curriculum, authorities must consider: The diverse environment around the institution that envisioned instructional strategies to be implemented in teaching and learning activities, level of competency in graduate students and visionary leadership of the educational institute (Egan, 2003).

Also, the curriculum development approaches recommended by Tyler (1960) and Taba (1962) have a significant impact on guiding the process. Tyler suggested four indispensable components crafting an effective curriculum: Aims of educational institutes, accessibility of educational experiences to meet these aims, meaningful organization of these experiences and devices to evaluate the efficacy of these experiences in order to attain the targets. Although those are considered traditional and narrowly focused, their components are still applicable in contemporary models of curriculum development: delineate purpose and objectives, describe activities associated with goals, sequence and organize experiences and activities, and evaluate the goal attainment ratio. In addition, the education specialists advise having a holistic plan and learning objectives encompassing social, political, cultural, and religious values to legitimate learners to face the era's global dynamics and multidimensional challenges (Krull & Kurm, 1996)

2.1.4 Curriculum Approaches

As discussed above, the curriculum is defined as an array of orderly and series of meaningful planned learning actions (Mkandawire,2010), a way to provide knowledge to learners in an authentic framework (Mojkowaski,2000), encompassing learning experience, strategies, resources, skills, values, behaviour that are purposefully drafted to attain realistic goals with a specific cohort of students (Cobbold,1999). Therefore, it is paramount to plan a curriculum that meets the requirement of the 21st century and suits learners impeccably (Muskin 2015). This calls for curriculum approaches as they play a significant part in curriculum planning, development, and design. To that end, it is a fundamental element of curriculum implementation and expected outcomes as curriculum execution is broadly based on how it is planned and

designed. Four curriculum approaches underpin the curriculum spectrum: behavioural approach, managerial approach, systems approach, and humanistic approach (Bilbao, Corpuz and Dayagbil, 2015). Curriculum developers and practitioners may use one or more approaches while planning, implementing, and evaluating the curriculum.

2.1.5 Behavioural Approach

The behavioural approach is dominantly based on scientific philosophies involving paradigms, examples, and step-by-step curriculum formulation. It was developed by Bobbitt and influenced

by the ideology of Fardick Taylor, who aimed to concentrate on achieving efficacy. Taylor's approach encapsulated behaviourism (objectives are important) with progressivism (learners' needs are highlighted). According to the approach, the curriculum framework is grounded on the blueprint where goals and objectives are specified. Activities are aligned to be commensurate with the objective, and outcomes are measured according to goals and objectives set at the beginning (Bilbao, Corpuz and Dayagbil, 2015). In agreement, (Porter 2018) asserted that in the behavioural approach, the curriculum design of a course exhibits the learning objectives; planned activities to attain predecided outcomes and evaluation has been done based on those objectives and standards-based education. The process commences with setting goals and activities followed by an assessment to see whether the activities are helping students attain the objectives. Additionally, it indicated that behaviour change regulates the measurement of the learning activity (Romiszowski, 2016). Therefore, everything learners do must be observable as it shows that they are learning and advancing to achieve the goal, and whatever activities they do lead them to specified objectives.

(Bobbitt, 1924) further emphasized on differentiated nature of the curriculum. He opined that it should be attributed to academic and vocational to suffice students' needs as per their ability, which works as a device of social regulation and help in facing the challenges of modern society. On the other hand, Hilda was the proponent of spiral curriculum and stated in her philosophy that renovation of curricula is not a one-time effort; instead, it's a long process where the curriculum must be organized around generalized objectives and allow vital content to be reviewed throughout the year.

Furthermore, Thorndike took the concept to another level and introduced the theory of connectionism. He postulated that the responses immediately followed by satisfaction (success and celebration) will be more likely to happen in future, whereas dissatisfaction (failure) or discomfort will reduce the magnitude of occurrence. Therefore, planners should ascribe connectionism as an integral part of curriculum development which later underpins its successful implementation.

2.1.6 Managerial Approach

The managerial approach is reminiscent of organizational theory in which a school is considered a social community where teachers, students, curriculum planners and administrators work

together for a homogeneous aim. The process includes the principal, curriculum leader, instructional leaders, or general manager in curriculum formulation. This approach constitutes electing, organizing, collaborating, and supervising people involved in curriculum development and implementation. Proponents of the managerial approach are usually obsessed with curriculum innovation and facilitating change. The school may accept or resist change, but its instructional leaders' role is to bring seamless transformation. The leaders set all priorities and policies, establish the direction of change and innovation, and provide insight into curriculum and instructions (Bilbao, Corpuz and Dayagbil, 2015). In agreement, Romiszowski (2016) described how instructional leaders, curriculum leaders, or general managers are responsible for the curriculum formulation and relevant activities to be executed in the classrooms. The school administrators are less concerned about the content than the organization and implementation and less interested in strategies and resources than in enhancing the curriculum. Its whole responsibility lies on the shoulder of the curriculum and instructional leader who constantly monitor and restructure the curriculum to achieve the learning objectives. The instructional supervisor designs curriculum guide as per grade level and subject area in collaboration with students, parents, teachers, and stakeholders. Their role includes observing and assisting teachers in the curriculum implementation, encouraging innovation, and developing curriculum and instructional evaluation standards (Ornstein and Hunskin, 2004).

2.1.7 Systems Approach

The system approach is influenced by system theory. It emphasizes stimulating people and policies to establish a curriculum into a system. The different parts of an organization are considered one. The curriculum plan usually requires organizational diagrams, flow charts and committee structures (Slattery, 2013). Sometimes referred to as curriculum engineering, the approach includes the process by which engineers such as superintendents, directors, coordinators, and principals, plan the curriculum, the curriculum's stages (development, design, implementation, and evaluation) and the curriculum's structure (subjects, courses, unit plans and lesson plans).

Presently, many schools adopt a system approach, widely known as "Total Quality Management" (TQM), grounded on Ed Deming's 14 points for enhancing the workplace system. Besides, people associated with curriculum development and implementation realizes that the application of TQM leads them to profound knowledge that comprises four components: systematic thinking, theory

of variation, theory of knowledge and knowledge of psychology. Systematic review aids people to comprehend their interaction with each other and the dynamics of organizational interaction with subprocesses. The variation theory indicates that a school is a community that displays a multicultural environment that is embedded with differences. Therefore, they ought to live homogenously and learn to communicate, cooperate, and respect each other's feelings and thoughts by reaching a consensus. The theory of knowledge emphasizes the people's wisdom that is needed for curricular success. Finally, the knowledge of psychology underpins TQM by augmenting the contribution and learning of learners and educators. Moreover, curriculum experts who value the system approach treat curriculum broadly and consider curriculum challenges to the whole school or system, not just specific grades or areas (Schell and Mathieu, 2017).

2.1.8 Humanistic approach

The humanistic approach is evident in the humanistic pedagogical framework wherein a curriculum solely focused on academics is considered incomplete. It is the responsibility of curriculum authority to suffice the needs of holistic development of learners, including emotional and social aspects (Aloni, 2011; Hewitt, 2006; McNeil, 2009)

This approach contradicts the standardized framework that focuses on a uniform approach; one strategy fits all students and instead of underscore the belief that every child is different and diverse in their interest and adaption of knowledge (Eisner, 2002). Furthermore, the humanistically orientated practitioners often allow learners to explore their interests by selecting topics connected to their real lives (Hewitt, 2006; Huitt, 2009; McNeil, 2009). Such topics often include assignments that promote creative problem solving, with the intention of multiple solutions to any issue rather than any single correct answer. Mainly the activities that originated from this approach are featured at the elementary school level. It includes real-life experience-based content, group assignments, collaborative play, artistic free expression, role play, field trips, learning and interest corners. These strategies promote creative problem solving and maximum student participation. In addition, it stimulates socialization and resilience in students and strong ties with the school and family (Huitt, 2009; McNeil, 2009). Lastly, in schools that adopt this approach, curriculum leaders and supervisors tend to allow teachers to contribute to curriculum decisions and believe in philosophies of professional collegiality.

2.1.9 Curriculum Implementation

Various scholars have delineated the term curriculum implementation in different ways. The curriculum implementation is a process of applying curriculum into practice to attain the objective for which curriculum existed (Garba, 2004). In agreement, Okebukola (2004) defines it as translating official documents into practice. Succinctly Ivowi (2004) considered it an interpretation of theory into practice or proposal into action. Moreover, it is a meaningful interaction of the learners with the planned learning environment. The planned learning environment refers to instructional material to be used for effective implementation at different stages (Mkpa and Izuagba, 2009). Also, Yobe (2011) and Aneke (2015) also mentioned implementation is a device of translating written curriculum into operating curriculum by collaborative efforts of teachers and the educational community. Additionally, this device is essential to inculcate societal attitude, skill, and knowledge.

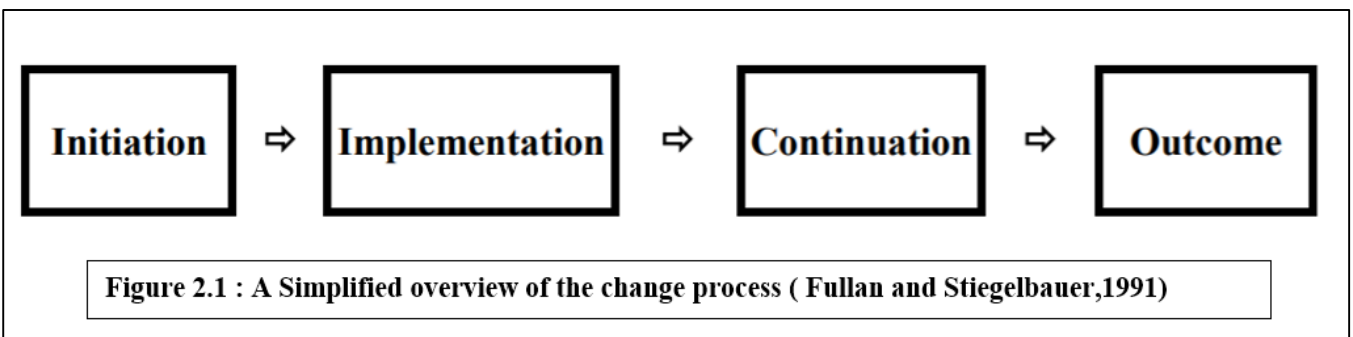
Furthermore, the efficacy of curriculum implementation witnesses vigilant envisage, focuses on primarily three factors: People, program, and process. Many change makers were failed in their endeavour because they only focused on program and process and had forgotten people factor entirely. In order to implement successfully, educators must encourage members to bring some changes in their attitudes, habits, and view of pursuing things. Although introducing a reformed program suggests people new means to attain the educational goal, the process is equally significant. Each institution is unique; therefore, the process must be altered as per the organization's need (Goodlad 1997)

2.1.10 Curriculum Reform

In education, curriculum reform refers to a materialized plan which informs the existing practices and the potential ways of improving them. Often curriculum implementation refers to the accomplishment of officially prepared course content and process documents. And curriculum innovation or reform is considered a remedy to educational gaps; however, it is not enough for a quality education system. The crucial part is the availability of qualified implementers to carry out the change and translate it well in classrooms (Chisholm, 2000; Mkandawire, 2010). For this reason, it is necessary to bring change in educators' beliefs before making any change in education (Department of Education and Science, 2005). This is the indispensable way to reap success in curriculum implementation. Unfortunately, several well-developed and organized curricula are not

appropriately implemented because a strategy to execute them in educational institutes does not exist. In the view of Jon Wiles and Joseph Bondi (2007), above 90 per cent of curricula are not appropriately implemented because educators lack management skills and information while executing the reform curriculum. Leslie (1976) suggested that implementation entails reformation and replacement. It demands changing habits, responding methods, program reinforcement, flexible learning time, agendas, and existing curricula. The willingness of teachers and others to adapt curriculum is primarily based on its planning and how developers have been carried out (Fullan and Hill, 2006). Sarason (1990) suggested that two types of basic information are crucial to practical implementation.

Firstly, understanding curriculum reform and how this information will fix into real context. Secondly, understanding the link between the curricula and the social-institutional context intended to be used. In other words, implementers should understand the relationship's institutional geography, culture, tradition, and magnitude. They must be informed about people's perceptions about themselves and their roles (Fullan 2007). Finally, influential implementers understand that the change must engage members logically, emotionally, and morally.



Fullan and Stiegelbauer (1991) developed a simplified overview of the three phases of the change process that validates the outcomes (Fig.1). The idea that finally reaches the decision stage comes under the initiation phase. In the second phase, participants bring change in their beliefs and understanding to facilitate change, called the implementation phase. In this phase, extra support for translation, the idea into practice is offered. While the initiation phase is considered a minimal use of curriculum, the implementation phase focuses on the actual change. Subsequently, in the continuation phase, the reform is embedded in the organization's practice, and extra support (that had been provided during implementation) is withdrawn. While implementation is considered the

early stage of piloting, the continuation phase is regarded as an established stage under standard conditions.

2.3 Theoretical Framework

2.3.1 Models of managing curriculum change

In today's world, a range of opportunities and choices are envisaged, including the choice of curricula and implementation. Education providers work with the construct of diversity in approaches to curricular enhancement, the aim of education, development of wide-ranging curricula, measures of student engagement, and evaluating their success in such curricula. To that end, curriculum implementation entails restructuring, replacement and teamwork. In addition, successful implementation demands shaping the school culture, standards, and behaviour (Elmore, Grossman, Johnson 2009). For people, adopting changed beliefs and attitudes is not easy. Especially, those engaged in new curricula must understand the complication of new pedagogical approaches, resources, technology, and the environment. The models of curriculum implementation foster successful implementation of the above-stated results from meticulous planning. There are several models introduced by educationists like Tyler, Taba, Oliva; in this section, we will focus on 1) Overcoming resistance to change, 2) Organizational Development Model, 3) Concern-Based Adoption Models and 4) System Model.

2.3.2 Overcoming Resistance to Change

The overcome resistance model has been employed in organizations for several years. The construct believes that the success or failure of any organizational change or reform rests on leaders' efficacy and ability to facilitate staff to overcome the resistance (Ornstein and Hunkins, 2009). In addition, they must foster a conducive environment by attending to people's reservations and worries. Also, people must ensure that their thoughts and opinions are considered and valued (Palmer, 1998). Another strategy is to bestow equal power to school administrators and educators. Co-teachers and assistants must be engaged in the discourse of reform. In this way, all organization members will consider their decision and be committed to it. The proponent of this model believes in evolving the individual's attitude before altering the organizational environment.

And the change must have room for distinctiveness and individual consent. The implementation process has four phases: Educators and leaders who deal with ORC must value all the four stages to secure the interest of implementors and avoid disconnection. (Hall and Loucks, 1979)

Phase 1: No relation: This is the initial stage wherein educators feel unconnected to the decisions. For example, the educator knows the evolved strategies but does not feel related or affected personally.

Phase 2: Individual relation: At this stage, the educator comprehends how the innovation will affect their practices. For example, A math teacher understands the use of technology in lessons and how it will affect the existing teaching methods

Phase 3: Task base relation: Educators realize the actual use of innovation in daily practices. For example, A math teacher understands the use of technology in daily lessons. What skills, resources, and time it would take? What is the best strategy to execute it effectively in everyday tasks?

Phase 4: Result base relation: At this stage, educators assess the impact of innovation on students learning, co-staff and related community. For example, teachers would want to know the implications for the personal subject area and evaluate how it can improve outcomes.

2.3.3 Organizational Development Model

Organizational development is a construct that prompts implementation as an enduring and interactive process. It facilitates the efficacy and productivity of an organization. In addition, it provides multiple ways by which the team can work together to adopt the innovation and overcome the barriers of implementation (Schmuck and Miles, 1971).

The model focuses on the following areas of educational bodies (organizations):

1. Enhance the rational process and problem-solving skills.
2. Consider the innovation's technical aspect and systematic properties (e.g., class size).
3. Encourage teamwork and collaborative work culture for addressing concerns.
4. Appreciate curriculum implementation as an ever-evolving and continual process.

5. Respecting new ideas, programs, methodology, resources, and student engagement tactics.
6. Emphasis on action research.

Allied to this, Barnard (1998) stated that Organizational Development is a modal that appreciates teamwork and taking care of members needs. According to him, the modal primarily focuses on:

1. Leaders' behaviour and commitment to staff members
2. Trust and positive relation between team members and team members and management.
3. Open and frequent communication between workers and management.
4. Liberty to employ ideas and set goals.

The modal determines:

1. Where is the organization?
2. What is the aim of the organization?
3. What is the best way to achieve the organizational targets?
4. How to evaluate the outcomes of the efforts?

2.3.4 Concern-Based Adoption Model

To some extent, the concern-based model is connected to the organizational development model. However, the users of the CBA model believe that individuals initiate the modification. Therefore, it is prudent to change individuals' behaviour to see the change in an organizational environment. The shift engages many individuals; hence individuals need time to acquire new skills, formulate new attitudes and take unique shapes. The process becomes more manageable when individuals believe that they are a responsible part of this change, and it is a crucial aspect of their personal and professional lives (Marsh and Willis 2009).

Contrary, the concern-based model considers only implementation and not development and design like the organizational development model. It believes that the prior work of identifying students' needs and selection of curriculum content is accomplished by educators. Moreover, it advocates that innovation does not focus on students' needs but also considers teachers' concerns regarding concepts, resources, methods, technologies, and teaching-learning experience. These factors must be acknowledged in their various aspects. They are the foundations to serve students with a rich and fruitful learning experience (Fullan 2006). Further, the model's ideology is traced

by Fuller's investigation, where he stated that the new teacher progressed into seasoned teachers in 3 steps, self-concern, teaching-concern, and student-concern. Collin (2007) further elaborated the concerns into five stages:

Stage 1: Teachers awareness about the innovation

Stage 2: Learning about the innovation without knowing its self impacts.

Stage 3: Amazement post acquiring the skills and understanding to execute the innovation.

Stage 4: Anxiety to manage time and resources to implement the innovation

Stage 5: Concern about students how implementation may affect their learning.

Eventually, all teachers' concerns are addressed, and curriculum implementation is surfaced. In this model, teachers have the liberty to accommodate and modify the curriculum as per the need of individual learners. In addition, they are expected to work in teams and enhance the curriculum to benefit the entire school community.

2.3.5 System Model

The construct of the organizational development model and concern-based adoption model is grounded on the system model approach. The model underpins the system's role in organizations to foster collaboration and teamwork. For example, educational bodies function with different departments, classrooms, and people. Instead of being firm, they must have a flexible approach to their relationship. Usually, members in schools intersect responsibilities. Also, the higher-level teams need to collaborate with curricular and lower-level teams for better results; for this reason, if workers realize their contribution to innovation and respect, support and trust each other, they are likely to have a more positive approach towards the goals.

Additionally, the system model emphasizes central-driven administration, which is generally not happening as most schools lack a central control system, particularly classroom practices. Consequently, it resulted in the imparity of reformed curriculum implementation (Ornstein and Hunkins,2009). Therefore, the system model uncovers the strength of support and coordination in all departments involved. It is nearly impossible for any education department to conduct

successful implementation without the support of principals and senior management teams and for principals and senior management teams without teachers/educators implementing reformed curriculum into classrooms.

2.4 Review of Related Literature

Role of the Educational Community

2.4.1 Role of Students in Curriculum Implementation

Over several decades the unsettled topic of curriculum designing and its participants has always been an arguable topic amongst researchers. Assuming that the curriculum is something that is planned and implemented for the growth of students, their absence in the process is debatable. (Klein, 1990). However, students' role in curriculum designing is comparatively a contemporary idea in the curriculum domain. There are traces in the history of student involvement in decision-making; however, the concept has strengthened its root in the recent decade, and students' opinions started getting attention in school planning (Rudduck & Fielding, 2006). Researchers have started interested in this area and linked student engagement and academic improvement. They realized that student engagement increases when their thoughts are addressed, and their voices are heard. As the concept progressed (Thompson, 2009) opined, learners become docile and passive recipients of adult knowledge in the mass education environment. In agreement, Levin (2000) emphasized that the ultimate goal of education is student learning and, therefore, to improve the outcome of schooling, the formulation of the curriculum must include students from the planning stage.

However, different educationist and philosophers have presented their views on students' contribution to curriculum planning. Few thought that students have the right to say in the process because they are the recipient of the information, whereas others have downplayed students' roles with the feeling that they may take an interest in specific topics to please their teachers and disregard other essential subjects. For example, Kilpatrick and Rugg, who are widely known for their child and activity centred work for curriculum outlining, asserted that it is prudent to engage learners in planning themes, lessons, school projects as they are the ones who get benefited. However, (Dewey 1934) thought that teachers' responsibility is to design and execute curriculum and be more aware than learners of what they need and are interested in learning.

On the other hand, Tyler did not speak much about students' contribution in his book *Basic principles of curriculum and instruction*, but his associate Tuba had detailed thoughts on the same. She claimed that curriculum is a plan of learning, and therefore students' knowledge and contribution shape the curriculum design. As education progresses, the curriculum must advance post obtaining information about learners liking, thoughts, feelings, and skills. Additionally, Doll opined that students could be involved informally in the classroom and school activities planning since they provide vital clues about events to be held.

Furthermore, not involving learners is another factor that espouses student involvement. When students understand process and structure, they are more connected to goals and interested in achieving them instead of becoming a barrier to their learning (Rudduck & Flutter, 2000). Also, it is difficult for teachers to determine what struggle students may have with the instructional strategies applied. Their progress will suffer if Students are not empowered to communicate their perception and facilitate instructional modification (Konings, 2010). Researches prove that students emotionally value the fact that teachers respect their views, which develops a strong relationship between teacher and student (Thompson 2009)

2.4.2 Role of Teachers in Curriculum Implementation

Teachers play a significant role in curriculum implementation besides their other functions, for example, learner supervision, discipline, respecting cultural diversity (Mc Donnell,1999), building mutual bonds with parents (Lundin, 2000), establishing a conducive atmosphere for learners, and facilitating to augment development and learning in the classroom (NAYEC,1997). Curriculum innovation is not enough to provide high-quality education; there is a need for good implementers to bring it to life. And teachers are the primary agent who converts all theoretical information into real classroom settings.

Previous studies illuminated that teachers' perceptions of teaching and learning substantially impact curriculum execution. If teachers' prevailing belief does not align with the curriculum philosophy, it may affect curriculum implementation adversely (Cronin-Jones, 2006), whereas once teachers have an alliance with the curriculum innovation, it turns into effective implementation (Kern, Kruse and Roehring, 2007).

Additionally, besides accepting the new curriculum ideology, teachers' understanding of curricula and knowledge of the professional area are crucial elements of program delivery but may hinder in case of inadequacy. In other words, if teachers lack comprehension of the theoretical framework in length, it's nearly impossible to do justice with its execution (Park 2008).

Furthermore, it is learned that teachers' traits impact curriculum accomplishment. Several studies indicate that teachers who are stimulated, open for change and keen to adopt new strategies are likely to be better curriculum implementors than non-motivated or unflexible individuals (Butera, Czaja, Daniels, Goodman, Hanson, Lieberal and Plamer, 2009)

Also, teachers play a vital role in transferring written curriculum into the practical curriculum (Locher, 2015). In Olivia's (1992) view, teachers are the founding member of curriculum development. Align with the view of Doll, he suggested the bottom-up approach to curriculum. As per the approach, the teachers' part is developing, implementing, and evaluating the curriculum. For this purpose, they work in groups, initiate and review proposals, probe investigation, gather data, establish contact with associated people like co-teachers parents, write and create curriculum materials, obtain responses from students and gauge curricula. Thus, teachers must be released from their classroom duties to prepare a final curriculum outline and gather resources (Rugg, 1930). Karner and Krull suggested that teachers need a sense of belonging to perform their duties with fidelity. For this reason, the construct of ownership emerged. Ownership can be seen as a mental state of feeling like an owner of the innovation where teachers feel that the curriculum is theirs (Karner and Krull, 2016), and they are free to accommodate and make changes in curriculum implementation (Penuel, 2014).

In contrast, James (1986) opined that teachers have limited curriculum planning roles. Although many researchers have considered them curriculum leaders, the primary responsibility lies on the shoulder of supervisors and administrators. Other curriculum-related works like budget planning, interaction and approval from stakeholders, school boards are part of supervisors' and administrators' job profiles to underspin curriculum planning. However, skilled teachers can also be part of the planning.

In order to equip teachers with the knowledge and skills to implement the reformed curriculum, the role of teachers' professional development is vital (Desimone, 2002). Countries like Finland, Australia, Canada, Singapore has well-rounded policies that support teachers' professionalism. These countries invest in teachers' development from the initial stage and extend to lifelong

development. Kennedy (2005) had developed a continuous professional development model for teachers. It benefits educational organizations in two ways. Firstly, it prepares teachers to face the challenges of curriculum reform, and secondly, it equips teachers to participate in designing policies and practices (Little 1993).


Model	Purpose	
The training model The award-bearing model The deficit model The cascade model	Transmission	 Increasing capacity for professional autonomy
The standard-based model The coaching/mentoring model The community of practice model	Transitional	
The action research model The transformative mode	Transformative	

Figure- 2.2 Kennehy's spectrum of continuous professional development

In Kennedy's spectrum of continuous professional development, transmission models underpin the first purpose that prepares teachers for the implementing challenges of a reformed curriculum. In contrast, transformative models support the second purpose, enabling teachers to become rational and well-informed critics of reforms and in between the Transitional models that can serve either purpose.

2.4.3 Role of management in curriculum implementation

Curriculum management constitutes several bureaucratic processes in keeping account of the updated, accurate content of the curriculum in implementation. Cardno (2003) outlines management as a cornerstone in school business and key to successful teaching and learning. Stakeholders are the curriculum managers, and their responsibility is to facilitate implementation and accomplish curriculum targets and goals. Valero and Skovsmose (2002) opined that

curriculum is not merely following a set of instructions or superseding old by new practices, but it is a way of modifying the curriculum that complements teaching and learning. It is understood that without the consent and acceptance of all stakeholders, it is impossible to bring any systematic or long-term change. Due to this reason, it is pivotal for all stakeholders to be acquainted with all curriculum dimensions, instructional strategies, and tactics to facilitate instructional and curriculum leadership.

Further, the headmaster and management team are caretakers of the school curriculum. In order to underpin reform, teachers and teaching practices need to be aware of subject contents the way it has been taught in their schools. Hence, the effectiveness and success of reform are based on the headmaster and school management (Schaffazick 1989). Curriculum leaders should stimulate teaching practitioners and learners to adopt the reform for an easy transition. They must possess quality knowledge of the agreed curriculum to analyze, modify and implement it meaningfully (Bush 1995; Dimba 2015). As per (Wahyudin 2010), management must execute a formative and summative evaluation of their educators and provide them with professional development training wherever it is needed.

Besides, the role of the management is to provide a conducive environment that espouses open-door policy and a straightforward approach to the administration to address curriculum problems. This practice will open doors for teachers and learners to raise their issues and get resolved healthily. Furthermore, positive implementation entails curriculum leaders or principals to discuss with the implementors, which later can be used as a yardstick to design a paradigm to facilitate school success.

2.5 Summary

The reviewed literature informs about the findings of previous studies, agreement and disagreement of different researchers and educationalists on various aspects of curriculum reform and its implementation process. On the one hand, where several studies indicate that the implementation integrity is dependent on the top-down perspective, others debated that it has been shifted to a bottom-up approach that underscores the autonomy and discretion of implementers (i.e., teachers). Hence, the opinion of other researchers will help the study explore the construct in the study area. Also, it is noted that not many studies have identified the contribution of learners in curriculum reform and its implementation. Hence this study will investigate the idea and apply the findings to overcome the school implementation barriers. Furthermore, the investigation will integrate the philosophy of other educationists to inform the findings and mitigate the gaps in the system.

Chapter 3 – Methodology

3.0 Overview of the Chapter

The chapter covers the attributes and coherence of the methodology used in this study. The data collection tools like survey forms and interviews are discussed in detail as they are the primary sources of information. Further, data analysis strategy and ethical issues associated with the study are also included in this section.

3.1. Introduction

According to Polit and Beck (2004), methodology refers to acquiring, systematizing, and analyzing data. Specifically, the research execution is impossible without methodology as it provides a complete structure of the study, sampling, techniques employed to collect and process data analysis (Bowling, 2002). Researchers must be acquainted with the primary objective of undertaking a specific inquiry, and the method selected for the project is appropriate to the task (Willing, 2013). Additionally, it should be commensurate to their skill set and has more strength and fewer weaknesses (Tashakkori & Teddlie, 2010; Buchanan & Bryman, 2009; Wilkinson & Birmingham, 2003). Finally, each instrument must work in alliance with others so that the obtained data must be related to the study and applied systematically (Jonker & Pennink, 2010).

3.2. Research Approach

3.2.1 Mixed-Method Research (MM)

'A MM research design is a procedure for collecting, analyzing and mixing both quantitative and qualitative methods in a single study or a series of studies to understand research.' (Creswell & Plano Clark, 2018)

MM research entails collecting and examining data, combining the findings, and drawing results using quantitative and qualitative approaches (Tashakkori & Creswell (2007). The approach provides an opportunity to outweigh the innate method weaknesses on inherent method strengths and balances foreseeable method biases' (Green, 2007). Moreover, the MM research design

collects, analyses, and mixes quantitative and qualitative methods in a single study or a series of studies to understand a research problem, converging information obtained from two distinct instruments and employing a design that may include philosophical assumption and theoretical framework (Creswell & Plano Clark, 2018). Thus, the MM inquiry is the integration of qualitative and quantitative approaches offers a complete and comprehensive understanding of a research problem than qualitative or quantitative could alone. For example, qualitative data is an open-ended interview questionnaire without anticipated responses, and quantitative data indicates close-ended responses designed on survey questionnaires and psychological instruments.

Relatively, all methods have biases and weaknesses, but integration of qualitative and quantitative data diminishes the imperfections of each form of data (Creswell & Plano 2011). The primary intent is that combining both types of data will infuse better understanding and insight of research problem and question than either method by itself.

Most importantly, in the mixed-method study, the aim of combining qualitative and quantitative data should be explicit about specifying how the analytic process is linked to each other and how results will be integrated (Cathain, 2008; Teddlie 2003). Tashakkori (2007) emphasized that the traits of the best MM studies include integration of quantitative and qualitative findings at some point in the research, be it at the data collection, analysis, or interpretation stage.

In short, MM research is an approach that constitutes gathering both quantitative and qualitative data, converging information obtained from two distinct instruments and employing a design that may include philosophical assumption and theoretical framework.

3.2.2 Convergent Design Method

The converging design is arguably the most well-known and widely applied variation of MM research. The convergent mixed design allows researchers to simultaneously collect qualitative and quantitative data to compare the results, contrast them, and triangulate them (Morse, 1991). Additionally, data is collected concurrently, and both data are treated equally. For example, interview data (open-ended questions) are as important as the scores obtained on an instrument (survey). Due to this reason, it is also called convergent parallel design (Creswell 2015). The Convergent design aims to collect qualitative and quantitative data concurrently, integrate the data, compare the results, and determine if the two databases yield similar or dissimilar results (Plano,

2011). In convergent parallel mixed-method, the investigators integrate qualitative and quantitative data to acquire in-depth knowledge of the study issue and interpret the overall result (Cresswell,2014). Later agreement and disagreement are addressed, and further investigation is conducted based on the findings (Greene, Benjamin, Goodyear 2001).

Besides, the coverage of the method is comprehensive as it allows to combine the advantages of each form of data; quantitative data offers generalizability, whereas qualitative data critically extends information about individual opinions (Tashakkori & Teddlie, 1998, 2010). The selection of MM design is based on the aspects of the data collection. They are intent, timing, and emphasis. The intention was to compare the two databases, validate one with another, and obtain more authentic insight into the problem (Creswell, 2014).

3.2.3 Triangulation

Cohen et al. (2005, p.12) called MM methodological triangulation and termed it a technique often used in social science to learn the complexity of human behaviour from more than one perspective. Also, Zohrabi (2013) agreed that the triangulation technique augments data validity by gathering it from different methods, such as close-ended and open-ended questionnaires and observations. The triangulation technique emerged by the pioneering work of (Campbell and Fiske,1959), who employed more than one quantitative method to measure data. (Deniz 1978) introduced four types of triangulations. They are data triangulation, investigator triangulation, theory triangulation and methodological triangulation. Methodological triangulation refers to implementing qualitative and quantitative data to study the same situation within the same study. In this research process, two databases have been obtained independently (qualitative and quantitative), analyzed the components separately, and then interpreted and compared results collectively (Creswell & Pablo-Clark,2011).

3.3 Data Collections Plan

3.3.1 Description of the Study Area

The study was conducted in one of the private schools in the UAE. The school was established 20 years ago. It serves students aged from 4 years (KS1) to 17 years (grade 12) in the region. Until two years ago, the school followed traditional teaching and learning methods. However, due to the revolution in the education sector of UAE, the school has attempted to adopt the new technologies

and enhanced teaching and learning style to gel with the trend and optimize students learning experience.

3.3.2 Sampling

Sample selection is based on the population size, its similarity, cost of survey media and the degree of fidelity needed (Salant & Dillman, 1994). The research is carried out in a private school in Dubai, UAE and the population is randomly selected. The sample size is substantially large enough to suffice the yield of desired precision. The total sample size is not fixed; it is usually impossible to know the exact population (Salant and Dillman, 1994); however, the estimated sample size of the study is nearly 165, out of which almost 150 are teachers and the remaining 15 are heads of the department.

Teddlie and Tashakkori (2009) provided an insight of convergent mixed method sampling where both probability and non-probability samples are selected, happening parallelly but unaware of each other (data collected from one sample do not influence another). Therefore, the researcher had shared the survey questionnaire with the teachers, who agreed to participate. The semi-structured interview is conducted with phase leaders on a critical case basis, i.e., with key decision-makers and knowledgeable people in the curriculum department of the school.

3.4 Research Instrument

As it is mentioned above, the study has embraced the MM approach. Therefore, both surveys and interviews were employed to address research questions and obtain a deep understanding.

3.4.1 Survey

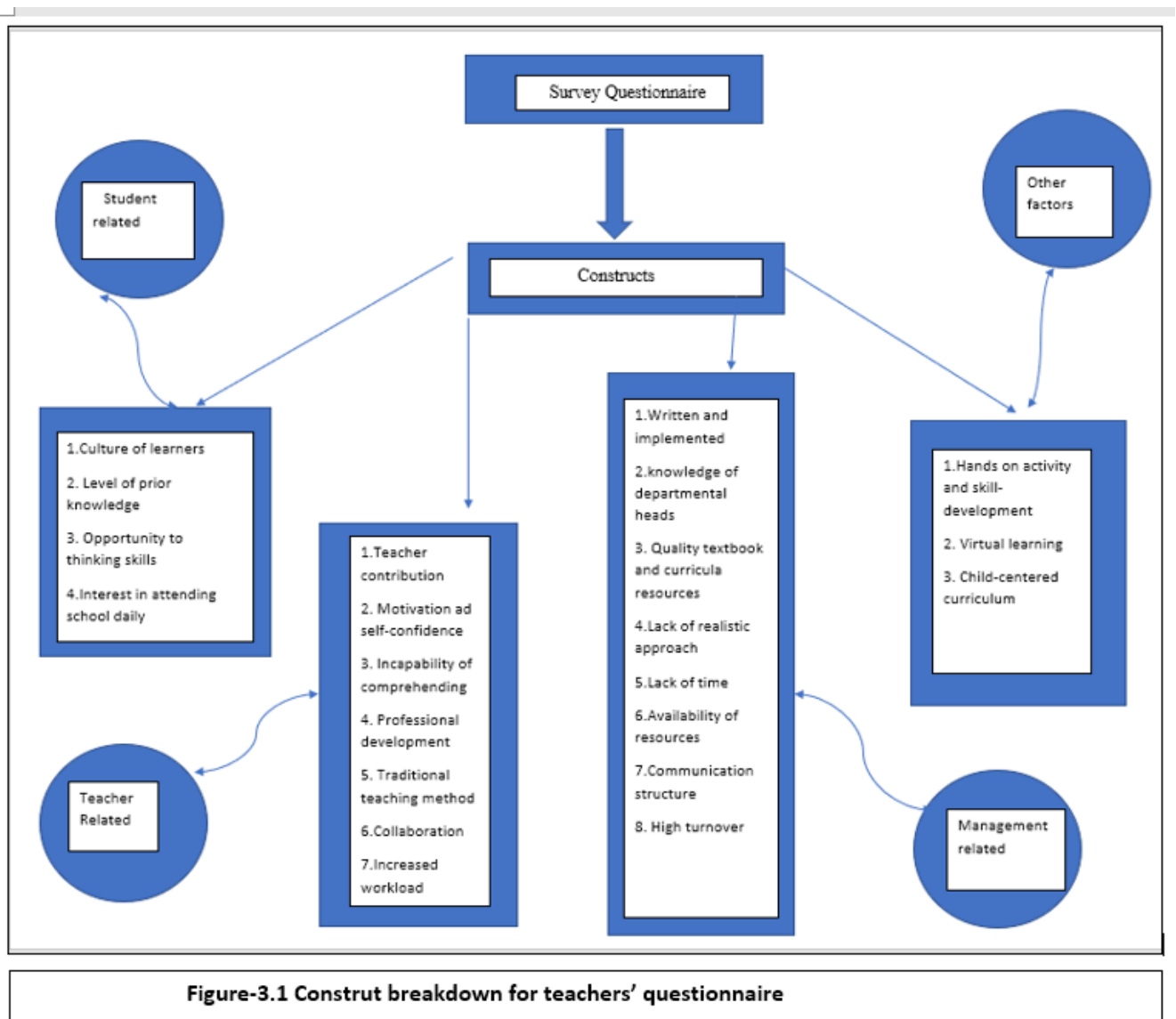
A survey is a data collection tool used to collect research data. Survey design is a stage in quantitative research. The researcher administers a questionnaire to a small group of people (sample) to identify numeric descriptions of a large population's trends in thoughts, opinions, and actions (Creswell, 2012). They also elicit the information of attitude, which is otherwise difficult to measure by observational experiment (McIntyre,1999). It is further described by (Salant & Dillman 1994) that a survey can be used to identify needs, estimate demand, and assess results. Surveys encompass the types and numbers of variables that can be studied. They entail minimal

time to create and execute and are relatively easy for generalizing (Bell, 1999). Moreover, they don't require researchers' presence and are convenient for analyzing the obtained data (Cohen et al., 2004). They are also suitable to gather demographic data that inform the sample's composition (McIntyre, 1999).

Furthermore, (Flower 1995) advocated the significance of the quality of questions. At an initial stage, a good question yields responses that are reliable and valid measures of the phenomenon that the researcher wants to highlight. Hence the questionnaire of this study is free from alternative interpretations, incomplete sentences, and ambiguous thoughts. Further, based on the sample size, a survey questionnaire may comprise open-ended/unstructured or close-ended/structured questions. However, in this study, the sample size is ranged around 150 participants. Thus, it seemed reasonable to opt for close-ended/structured questions as (Cohen et al. 2004) suggested that for the larger size of the sample, a more structured, closed and numerical questionnaire is well suited because they produce a frequency of amenable responses that are compliant to statistical treatment and analysis.

In contrast, for a small size sample, the less structured, more open, and word-based questionnaires are workable. The questions employed in the survey questionnaire are aimed to measure ideas, analyses, or proposals of responses. This type of question encouraged the participant to compare their own opinion to the ideas elicited in the question statement. Also, the language used in framing the question is straightforward unambiguous, and only one view is presented at a time.

Figure 3.1 presents the construct breakout of teachers survey



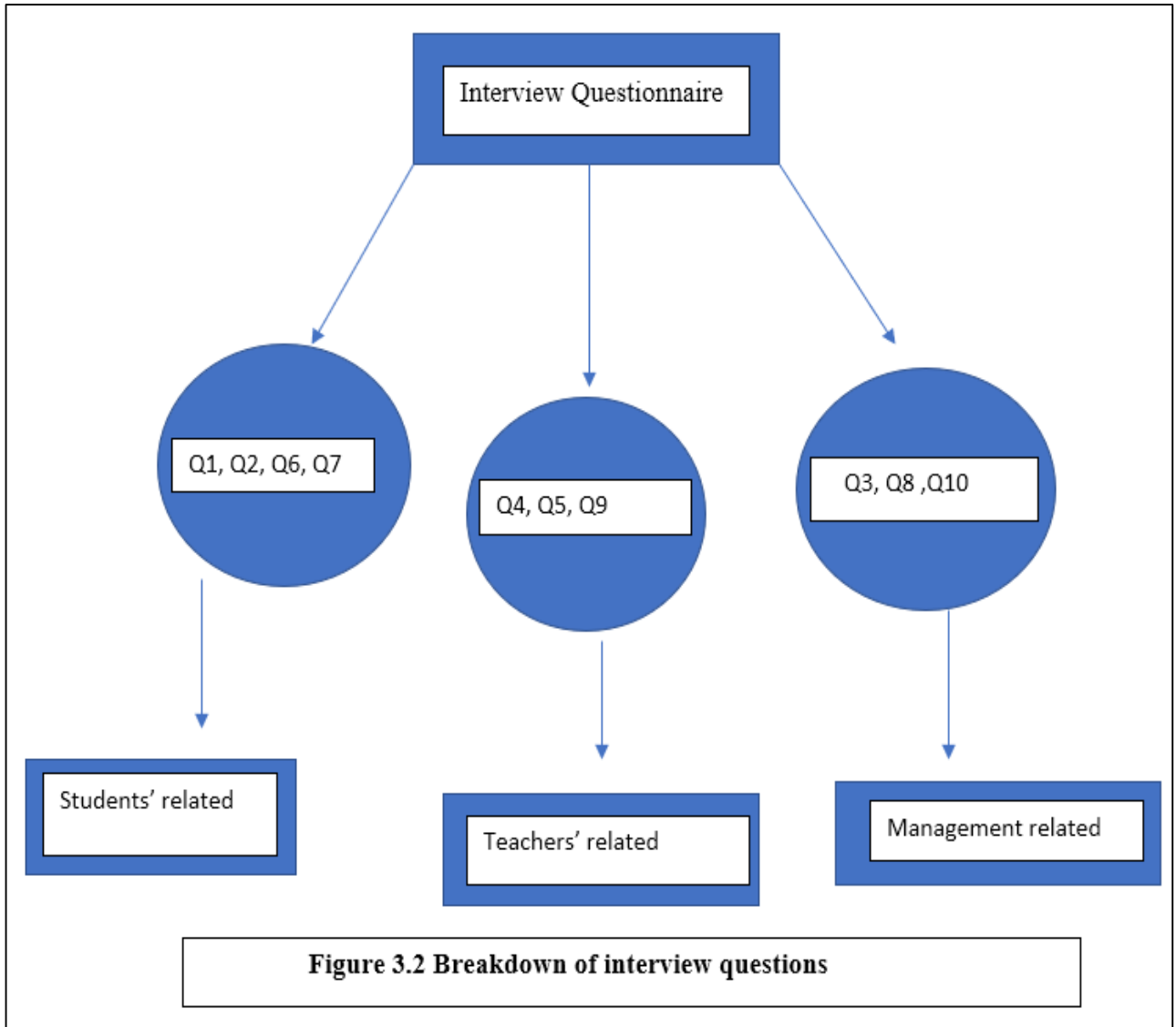
The teachers' questionnaire has 22 questions divided into four sections. The figure shows the construct division into different categories (student, teachers, management, and others).

3.4.2 Interview

The survey questions do not allow the respondent to express their exact feeling about the question asked because if the rating scale does not replicate their desired answer, they would generally end up with random responses. This action would cost the validity and reliability of the data. Therefore, to avoid such distractions, the interview's significance is undeniable. The interview is a widely known method employed in qualitative research where discourse occurs between interviewer and interviewee. The discussion aims to enable interviewers and interviewees to discuss their interpretation of the worldview and manifest how they perceive the situation from their perspective (Cohen, 2011). Therefore, the primary focus of the interview in this study is to derive a profound understanding of participants about the implementation process prevailing in the school environment. The researcher opted for the semi-structured interview as she works with participants for a substantial tenure and is aware of their knowledge and, therefore, capable to draft questions that yield the information required (Lincoln and Guba, 1985). An interview is a powerful tool for the researcher as it liberates the investigator not only to encourage the interviewee to reply but also to share their views on complex and profound issues. The researcher has informed the participant about the purpose of the interview to avoid risking biasing responses (Tuckman 1972). The interview was conducted one to one to eliminate the influence of other members by censoring, interrupting, and preventing information from being conveyed (Miltiades, 2008). In addition, being knowledgeable of the subject is not the attribute of a seasoned researcher. He/she should be an expert in interaction and communication (Kvale 1996).

Hence the researcher attempted to establish a secure and conducive environment so that participants could feel comfortable and talk freely. Regarding linguistic factors, the researcher translated the academic language into easygoing and colloquial language for participants to reap rich and authentic descriptions (Patton, 1980). The sequence of questions was also considered by asking easier questions first, for example, 'what' questions preceded by How and Why questions (Patton, 1980). Cresswell (2014) recommended that it is better to take handwritten notes instead of only audiotaping to prevent the loss of information due to the failure of recording equipment. Hence data was recorded accordingly.

Figure 3.2 presents the construct breakout of teachers survey



The interview questionnaire for departmental heads is comprised of 10 questions. The figure shows the division of questions as per three categories (Student, teacher, and management)

3.5 Data Analysis

3.5.1. Quantitative Data Analysis

Data was collected through google survey form and analyzed on MS Excel on Linkert scale-4, i.e., strongly agree, agree, disagree, and strongly disagree. In addition, the study has also used the frequencies and percentages generated by google form to interpret the data.

3.5.2. Qualitative Data Analysis

The qualitative data collected from departmental and subject heads through interviews was analyzed by a widely-known qualitative research method called thematic analysis. Thematic analysis is the process of categorizing themes present in qualitative data. There are many ways of doing thematic analysis; however, the study has adopted the framework suggested by (Barun & Clark, 2006). This is undoubtedly the most effective approach because of its clear and user-friendly framework. Below is the six-phase thematic analysis framework presented by Barun and Clark

Step 1: Become familiar with the data	Step 4: Review themes
Step 2: Generate initial codes	Step 5: Define themes
Step 3: Search for themes	Step 6: Write-up

Figure- 3.3 six-phase thematic analysis framework presented by Barun and Clark

3.5.3. Models of Qualitative Data Analysis

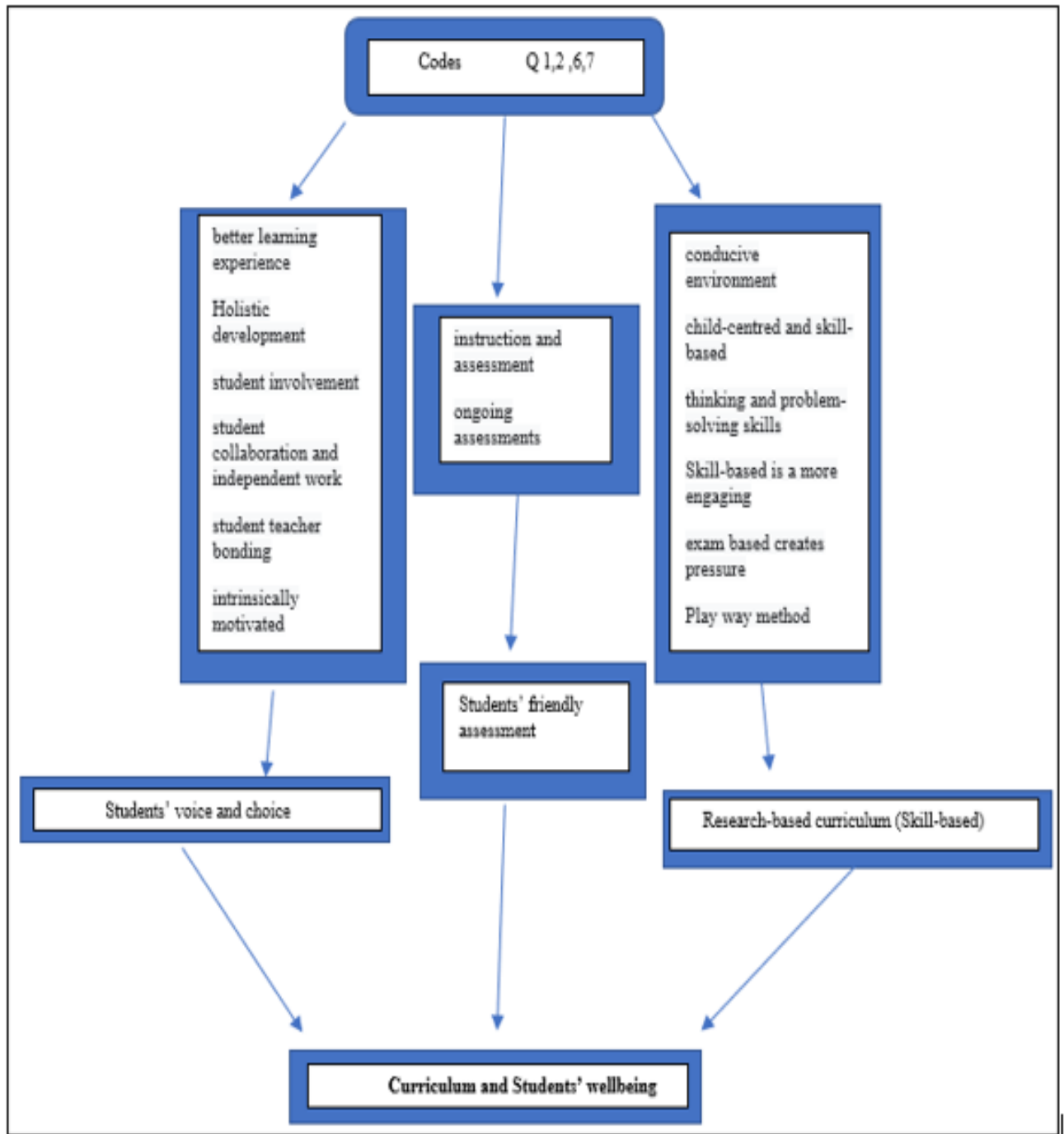
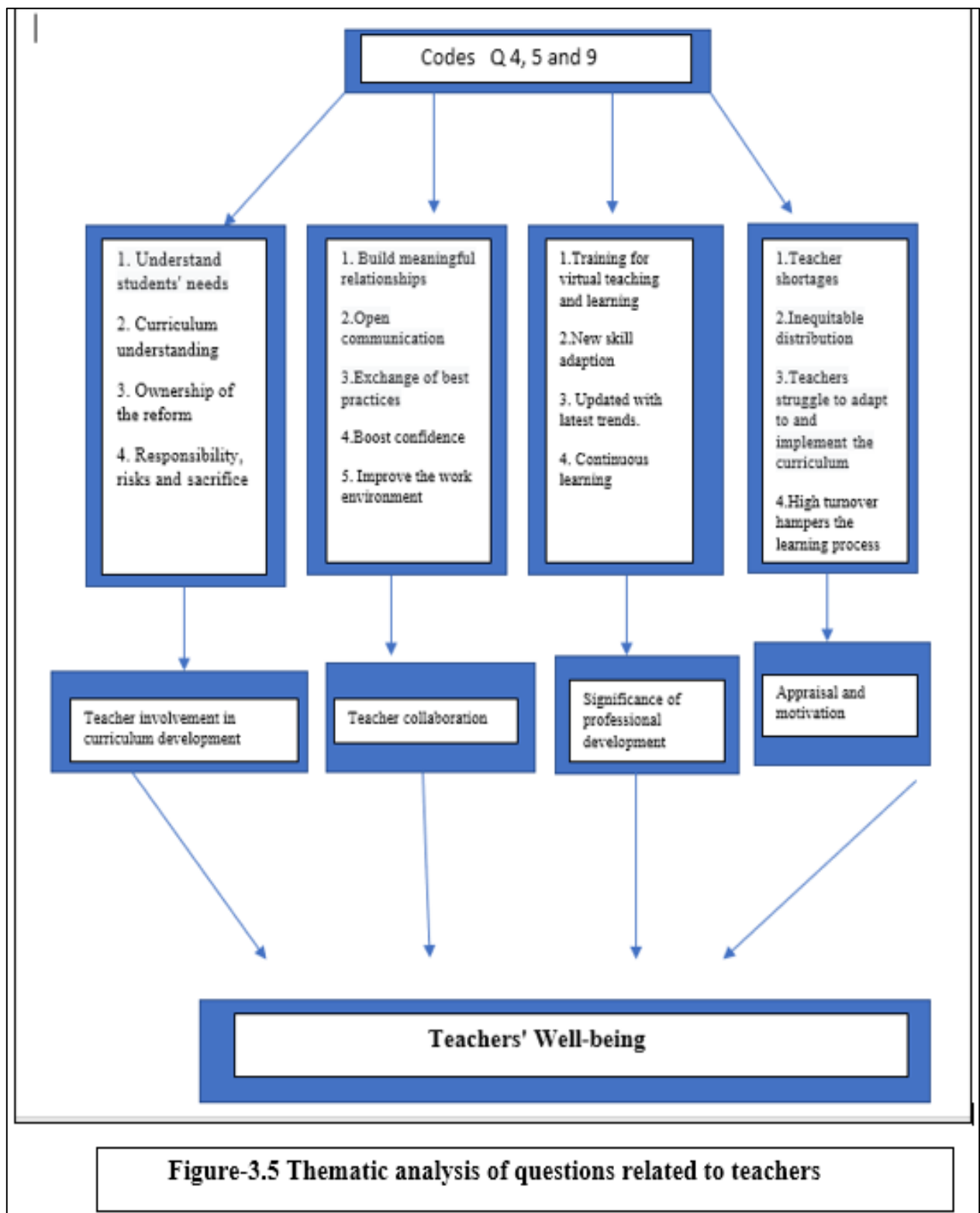
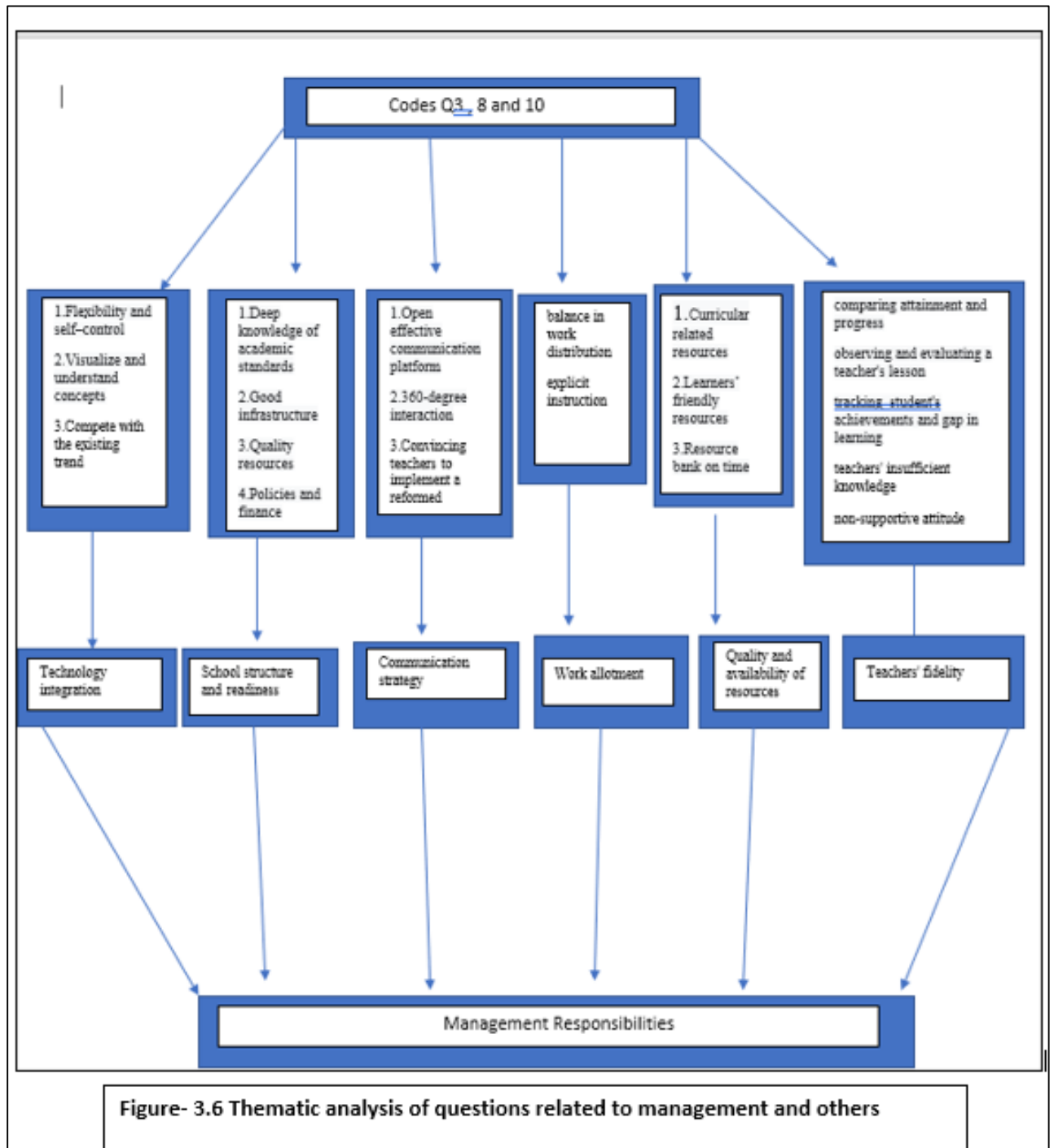


Figure-3.4 Thematic analysis of questions related to students

Above figure 3.4 shows how responses of Q1, Q2, Q6, and Q7 were broken into codes and then refined into themes and sub-themes.



Above figure 3.5 shows how responses of Q4, Q5, and Q9 were broken into codes and then refined into themes and sub-themes.



Above figure 3.6 shows how responses of Q3, Q8, and Q10 were broken into codes and then refined into themes and sub-themes.

3.5.4 MM Data Analysis

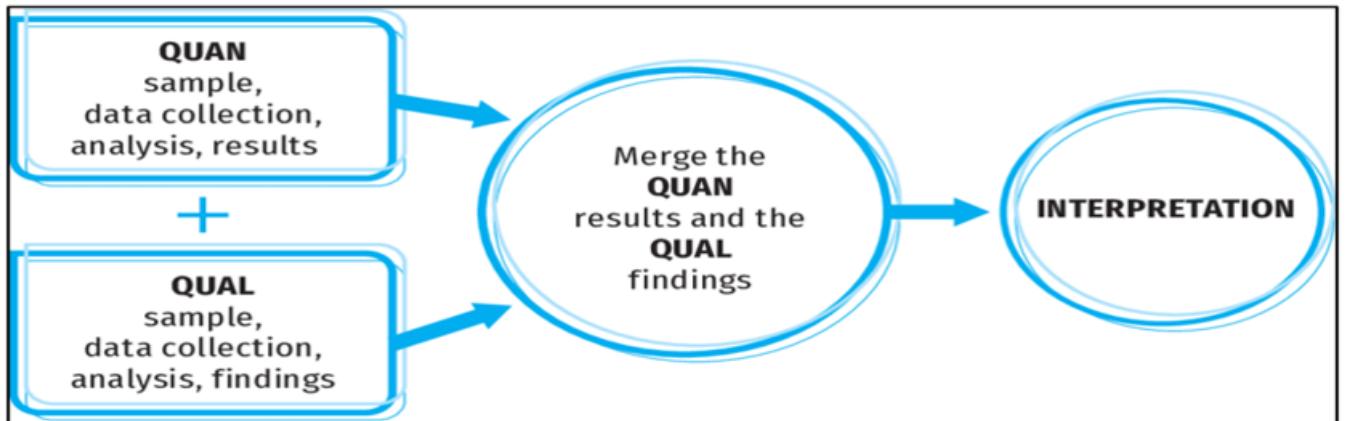


Figure-3.7 Diagram of the applied convergent parallel design Creswell & Plano Clark, 2015

As mentioned above, the study is mixed-method research and applied the convergent parallel mixed method framework. As per the procedures, the quantitative and qualitative data are parallelly collected, and a connection is established between both data, and subsequently, with the help of visual join analysis, data is inferred. (Creswell,2014).

3.6. Reliability and Validity

Reliability and validity are the two main legitimate components of the research data. Reliability refers to scores obtained by the research instrument that is stable and consistent. At the same time, validity signifies that the distinct scores received from the participants are logical and meaningful to the research and aids to draw a reasonable conclusion from the sample of the study generalizing to the large population (Cresswell,2005). Further, as mentioned (LR 3.2.4), methodological triangulation is adopted to augment the validity of responses as it disregards researchers' prejudice and analyses the qualitative and quantitative findings separately, followed by interpretation and comparison of results collectively.

3.6.1. Reliability and Validity of Survey Data

In an online survey, the researchers' absence precludes the data from being biased and make it more valid. Therefore, the study has implemented a written online survey as it requires minimal resources like people, cost and time and proved best to elicit classified information. (Isaac & Michael, 1997) prompted the weaknesses of written surveys like non-response error (intentionally or inadvertently skipped), filled by unintended respondents (Isaac & Micheal, 1997), affecting the validity and reliability of the responses obtained and their analysis. Therefore, the researcher has precluded the written survey's flaws by engaging a similar sector sample on a random basis as was suggested by (Cohen 2011) that if non-response is received from a homogenous and sub-sector group, it deters the effects on the validity of the responses.

3.6.2. Authenticity and Trustworthiness of Interview

The researcher engaged the most relevant and reliable teachers and heads in order to collect factual data. Kneett (2006) and Flower (2009) suggested that the survey rate increases if the participants are interested and directly related to the subject. Additionally, the survey is enveloped with the researcher's name, aim and policy of participants anonymity and confidentiality of responses (Fogleman,2002).

Besides, to determine the reliability of the research, a detailed discussion was held with interviewees to inform the study problem. A questionnaire was prepared, encompassing all dimensions of the study. In the first place, the researcher abandoned her preconception about the research subject to not influence the study outcome. Subsequently, she had meticulously followed the protocols while evaluating the authenticity of obtained findings. The process included constant reviews of the results and comparing records with the transcript obtained from the interview discussion. In addition, the researcher rigorously verified if the data gained from the participants and the case study objective are progressing to the same conclusion. After each interview session, the researcher provided the participant with the interview transcript to cross-check the recorded data. This practice led to a common interpretation of the data shared by the participant.

3.7. Ethical Consideration

The study adhered to the ethical requirement of the research from the outset of the study. He was honest while asking questions to the informants and did not try to influence their responses. As mentioned in the consent form, the responses were kept confidential and used only for research purposes. The researcher aims to conduct a concurrent survey of collecting quantitative responses from 150 teachers and qualitative responses from 15 departmental and subject heads. The 4 Likert scale questionnaire was designed for teachers, and semi-structured interviews questionnaire for departmental heads to gain a more in-depth understanding of the approach and thinking of the school's upper management.

All participants were provided with an informed consent form to participate before undertaking the survey to which they agreed. The consent form described the purpose of this study and the potential benefits of the responses submitted by the participants, as their responses will be used to improve implementation strategy and innovations. The consent form was sent to the heads privately by email for qualitative data collection, and the interview time was arranged after they agreed.

The Google survey form link was created and shared electronically with the participants. There is no question in the survey questionnaire indicating participants' details, affecting their anonymity. The interviews were held depending on the comfortability of the participants. The researcher used pseudonyms to maintain the participant's anonymity and data confidentiality during information analysis and discussion.

The quantitative data collected from the participants (teachers) by Google survey form was preserved exclusively by the researcher for analysis, and the information gathered from the interviews is made anonymous to inhibit participation identification and used for depth learning. Although information saving on a cloud-based system is convenient, data security is a risk. Therefore, the collected data was saved in password-protected files in a flash drive accessible only to the researcher. The information generated by the study was acknowledged accordingly, as promised.

Chapter 4 - Data Analysis

4.0 Overview of the Chapter

The chapter focuses on the results obtained from the qualitative and quantitative research instruments, i.e. surveys and interviews. In this chapter, the results were analyzed and interpreted to find the answers to the research questions. Google forms were employed to collect data from teachers and analyzed on MS Excel. In addition, semi-structured interview data was collected by departmental and subject heads and analyzed by thematic analysis.

4.1 Quantitative Findings

4.1.1 Survey questionnaire Analysis

The survey sample size was 150 filled by the same school teachers. The questionnaire has six sections, including a general introduction, demographic information, concerns related to students, teachers, management, and others. The findings from the questionnaire are presented in tabular format with mean and standard deviation as well as bar and pie chart to facilitate visual understanding.

Demographic information (Questionnaire Appendix 2)

Section 2 Q1

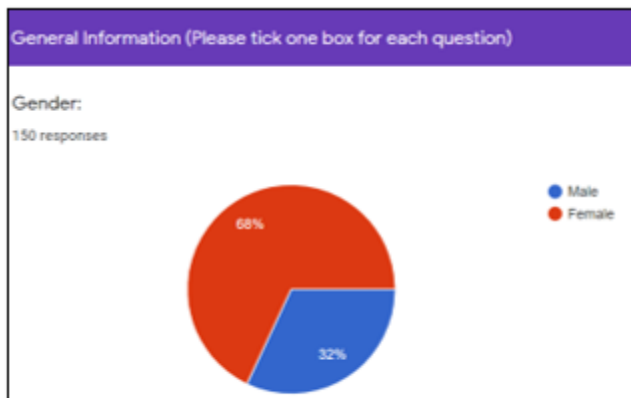


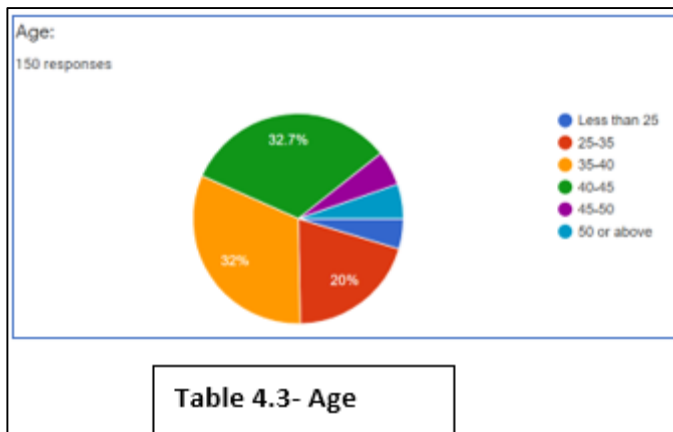
Table 4.1- Gender

Genderwise	Count of participants
Female	102
Male	48

Table 4.2- Gender

The demographic information of participants helps to derive the interpretation that out of 150 respondents, a total of 68% were female, whereas the remaining 32% were male. The proportion shows that the opinion of female teachers influences the survey largely.

Q2

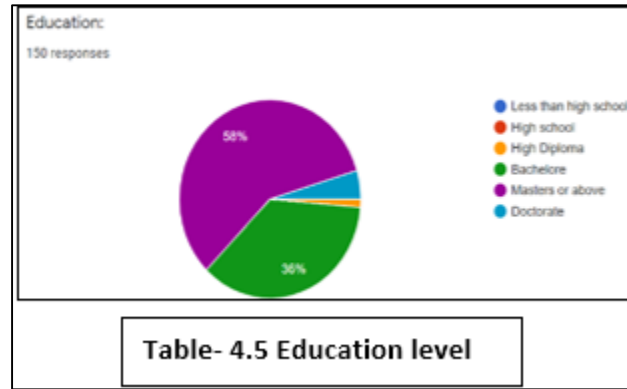


Age Range	Count of participants
Less than 25	7
25-35	30
35-40	48
40-45	49
45-50	8
50 or above	8

Table 4.4 - Age

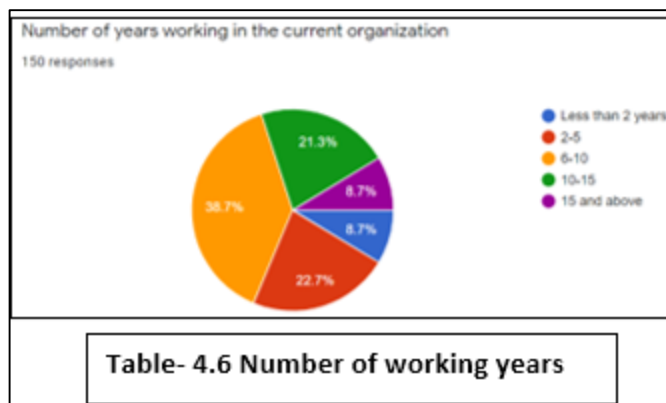
The pie chart analysis shows that two age ranges, 35-40 and 40-45, competed for significant contribution in the survey. The first highest age group is 40-45, that is, a total of 49 teachers (32.7%) and the second-highest is 32%, which is made up of 48 teachers. Along with the highest, the third major age group is 25-35, a total of 30 teachers who have participated. Out of the remaining three age ranges, two share the same number of participants, i.e., 8 and the final one is less than 25, which is a total of 7 teachers who provided their insight on the subject. With the age factor, it can be assumed that most of them have already established their educational philosophy, which informs their teaching and learning practices.

Q3



The pie chart shows that 58% that is the total of 87 teachers are masters, 36%, i.e. 54 are bachelor, 4.7%, i.e. 7 are doctorate, and the remaining 1.3%, i.e. 2, are high diploma holders. This analysis helped understand their construct of various domains of the education system and comprehension levels, which is imperative to survey outcomes.

Q4



The chart shows that 38.7%, i.e. 58 teachers, have been working in the same setting for 6-10 years. The second-highest ratio, 22.7%, includes 34 teachers, with the same setting from the last 2 -5 years. Subsequently, 21.3% i.e.32 teachers have 10 -15 years of experience in the same organization and finally, the rest two categories, less than two years and 15 and above, shares the same ratio of 8.7%, that is 13 teachers, respectively. This analysis elicited the teachers' fidelity and perspective of school practices.

Section 3

RQ1

Finding for Research question 1: What are the curriculum implementation problems related to students?

Mean (M) and Standard Deviation (SD) values are calculated for the responses from this section. The 4-Likert scale (strongly agree, agree, disagree, and strongly agree) shows the number of responses in the tabular format followed by M and SD values.

The purpose of section 3 from Q1 to Q4 was to analyze teachers view on the curriculum implementation barriers related to learners' behaviours where Q1 and Q2 talk about learners culture and prior knowledge, and Q3 and Q4 explore results of insufficient opportunity and disinterest in attending school daily.

For Q1 and Q2 responses revealed M values of 1.67 and 1.69, with SD 0.93 and 0.98. and for Q3 and Q4, the M value was 1.72 and 1.69 with SD 0.96 and 0.96, respectively.

Section 3	Sample	Response Rate	Mean	Standard Deviation
Q1	150	100%	1.67	0.93
Q2	150	100%	1.69	0.98
Q3	150	100%	1.72	0.96
Q4	150	100%	1.69	0.96

Table- 4.7 Quantitative response related to students

Section 3rd M and SD show teachers agreement for the presented clusters. Teachers substantiate the opportunity to develop thinking skills more than others among the four constructs. Perhaps this is the case because this construct acts as an impetus for others. The pedagogical design that initiates thinking skills and connects to students' culture, interest, and experience is an example of culturally responsive teaching. For instance, project-based learning, problem-based learning, and design for challenges are the few methodologies that stimulate students to post queries, investigate and resolve the challenges that matter to them, and contribute to meaningful engagement, boosting daily attendance and holistic development.

Section 4

RQ2

Section 4 leads to the teachers' opinions on implementation barriers. The M value of Q1 and Q2 were 1.67 and 1.61 and SD 0.99 and 0.95, respectively. Whereas the M score of Q3 and Q4 stood at 1.69 and 1.70 with SD 1.0 and 1.01. On the other hand, the M value of Q5, Q6 and Q7 were calculated at 1.79, 1.69 and 1.60, whereas the SD scores were at 0.98, 0.97 and 0.97, respectively.

Section 4	Sample	Response Rate	Mean	Standard Deviation
Q1	150	100%	1.67	0.99
Q2	150	100%	1.61	0.95
Q3	150	100%	1.69	1.0
Q4	150	100%	1.70	1.01
Q5	150	100%	1.79	0.98
Q6	150	100%	1.69	0.97
Q7	150	100%	1.60	0.97

Table- 4.8 Quantitative response related to teachers

Teachers' consensus made the traditional teaching and learning the most crucial barrier of the cluster with the M of 1.79 and SD at 0.98. Researchers have found there are many reasons teachers are reluctant to implement the curriculum as prescribed, which is one of them. Mandukwini (2016) connoted that teachers insufficient information about the innovation and implementation, heedlessness to learn new skills, and complex document structure leads to adherence towards old practices. Moreover, seasoned teachers perceive that traditional methods they have been using for a long time to acquire successful results are more conducive than new approaches. Consequently, it is vital to make them understand the aim of the innovation and how it can facilitate the possession of contemporary skills.

Teachers collaboration received the second-highest preference with low SD in the cluster. This shows that teachers would love to collaborate with peers as they know other teachers might have been confronted with the same problem and not judge them if seeking help. They can share their experiences and efforts to solve their problem. In addition, the working opportunity for a new

teacher with experienced teachers would boost their confidence and prevent gaps in curriculum implementation.

After collaboration, they signify their contribution to the curriculum development process. Teachers must be engaged from the primary stage of curriculum development till execution. This gives them a sense of ownership(as discussed in LR section 2.4.3.2) to embrace change more and put extra effort into implementation (Cobbold, 2017). Having first-hand experience, teachers can foresee what can go wrong in classrooms and make accommodations to revise implementation.

Subsequently, teachers have highlighted the increased workload, which hampers their efficacy to effective curriculum implementation. Sometimes a reform challenges the existing policies and practices and perhaps appear as a barrier in curriculum implementation. Nevertheless, it also adds to teachers' workload and pressurizes teachers to invest in one policy at the expense of others (Porter 1998). Therefore, school administration should facilitate teachers to focus on implementation by solving other issues.

On the other hand, the professional development indicator has scored the second-highest M but the first highest SD in this cluster. This shows the inconsistency of responses for the construct. While implementing the curriculum, teachers identify potential challenges, consider the school's social and political framework, access the curriculum's adaptability, execute pedagogical knowledge, and develop professionally to support learners and facilitate learning (McLachlan, 2018). The better her insight, the more effective implementation will become (McLachlan, 2018). Besides, teachers continuous professional development programs imbibe them with the skills and knowledge to enact a reformed curriculum. However, as discussed above, the heavy workload probably hampers teachers' motivation and wish to participate in a professional development programme and learn the easy tactics of practical implementation.

Also, the construct incapability of comprehending the curriculum stood at the second-highest SD of the cluster. This shows the inconsistency of responses for the construct. A teacher must have a substantial understanding of the curriculum to interpret and translate it to their students. While underlining the role of teachers in the curriculum (Fullan, 2015) asserted that they are the key managers of curriculum reform. In the absence of their appropriate knowledge and skill, reform can not be surfaced. And their resistance to adopting a modified curriculum would hamper swift implementation. Their ability to understand their learners through daily interaction validate their feedback in curriculum development and modification.

Section 5

RQ3

Section 5 questions aimed to determine the intensity of suggested factors related to management in curriculum implementation. In this section, the results of Q1, Q2, Q3 and Q4 revealed the M value at 1.77, 1.60, 1.73, 1.63 and SD value at 0.98, 0.88, 0.97, 0.91. On the other hand, the data obtained from Q5, Q6, Q7 and Q8 indicates the M value at 1.64, 1.65, 1.73 and 1.76, and SD scores at 0.92, 0.93, 0.93, 0.94, respectively.

Section 5	Sample	Response Rate	Mean	Standard Deviation
Q1	150	100%	1.77	0.98
Q2	150	100%	1.60	0.88
Q3	150	100%	1.73	0.97
Q4	150	100%	1.63	0.91
Q5	150	100%	1.64	0.92
Q6	150	100%	1.65	0.93
Q7	150	100%	1.73	0.93
Q8	150	100%	1.76	0.94

Table- 4.9 Quantitative response related to management

Teachers responses show that the difference in the written and implemented curriculum is the most significant factor in curriculum implementation of this cluster. Successful implementation is similar in prescribed and applied classroom curricula (Pak, 2020). However, there is usually a difference between what is planned and what is implemented in classrooms. When a curriculum is designed, the specialist writes about the different concepts and delivery approaches but has no control over its interpretation by the implementer. Therefore the written document can be implemented discretely by various teachers and implementers. As a result, curriculum goals are not fully achieved, or only certain concepts of the planned curricula would be delivered to the learners. In addition, there are many other factors, such as school culture and physical environment,

inexperienced teachers, and learners' discrete backgrounds, which hinders curriculum implementation as planned.

High teacher turnover is the second-highest indicator teachers prefer, with the M at 1.76 and a low SD of 0.94. Researches also prove that high teacher turnover rates in schools negatively impact best practices and delay student achievement goals (Kisa and Correnti, 2015). Hence, it shows the participants strongly believe that teachers replacement or scarcity of teachers have a significant effect on curriculum implementation. It deteriorates students' learning behaviour and quality resources essential for successful implementation. In addition, it resulted in the placement of inexperienced and less effective teachers, resulting in financial loss in hiring and training teachers. Schools can reduce teacher turnover rates by maintaining good mentor relationships and providing professional development opportunities and coaching support.

Teachers have gauged the indicator 'communication structure' as a critical issue, with the third-highest M at 1.73 and low SD at 0.93. Bordia (2003) suggested that giving authentic information on time would lead to transparency and adaptable behaviour to the change process. Perhaps teachers are unsure about their new responsibilities and expectations, and students might be sceptical about adopting a new curriculum and pedagogy of learning. Therefore, effective communication is paramount to underpin the reform and achieve its goals and objectives.

With the cluster's fourth-highest M and low SD, the result proves that the availability of resources is the most vital impediment of curriculum implementation associated with the barriers of other factors. Explicitly, the availability of resources informs teachers about the sustainability and significance of innovation (Viennet and Pont, 2017). Moreover, if resources are not arranged for long tenure and kept for temporary usage, teachers would most likely perceive reform as a temporary event and lose interest in renewing contents and practices.

Time limitations and unrealistic are other barriers rated nearly close by teachers. They find it challenging to teach a range of concepts in a limited period. The notion that validates teachers attribute based on curriculum completion hampers the holistic development of learners like high-order thinking, problem-solving, rational interpretation and connected learning (Vasconcelos, 2015). Therefore, curriculum designers should develop a realistic approach instead of an overly optimistic perspective.

Finally, ‘the knowledge of high-level management’ received the lowest SD, which shows highest consistency in teachers responses. Well-developed documents result from designers awareness and prudence, offer clear insight into the reformed curriculum, make evolution easier and allow educators to concentrate on learners progress instead of focusing on uncertainty that perhaps appear due to the reform (Oates, 2014). Almost all teachers think that the knowledge of their leaders about curriculum is a significant factor that may positively or negatively affect classroom implementation (LR 2.4.3).

Section 6

The results of section 6 determine the other factors that may contribute to the implementation barriers in teachers' lens. The data of Q1 Q2, and Q3 concluded the M value at 1.45, 1.48 and 1.78, whereas the SD scores at 0.86, 0.87 and 1.01. The other results obtained from Q4 and Q5 produced the M at 1.62 and 1.66 with SD at 0.9 and 0.9, respectively.

Section 6	Sample	Response Rate	Mean	Standard Deviation
Q1	150	100%	1.78	1.01
Q2	150	100%	1.62	0.9
Q3	150	100%	1.66	0.9

Table-4.10 Quantitative response related to other factors

The results present a mixed view on the construct of virtual learning. The clusters' highest Mea at 1.78 shows that teachers favour the use of technology; however, at the same time, the highest SD shows the inconsistency in the responses. This might be because teachers are insufficiently skilful at using the ICT in their practices despite being willing to use the technology. The same concern is raised by (Trucano,2016), who stated that the significance of technology surfaced on majorly two factors; 1) ICT structure that supports equal access among students and 2) teachers prudence to use ICT resources.

Teachers have shown high consent with consistent responses for child-centred curriculum surfaced on the ideology of skill development and hands-on activities. This might be because a child-centred

curriculum promotes independent imagining and articulating instead of spoon-feeding methodologies. Furthermore, hands-on activities stimulate the healthy development of high order thinking skills and retention ability. In addition, a child-centred curriculum endorses group activities, collaboration and a play way method to develop self-control and healthy relation with others. As a result, learners enjoy their learning and constantly advance to achieve the objectives.

4.2 Qualitative Findings

4.2.1 Thematic Analysis

For qualitative data collection, interviews were conducted with departmental and subject heads. The data obtained was transcribed and analyzed thematically. The following discussion presents the findings from the data collected in order to answer the research questions. The sequence of interview questions is attached in (Appendix 4); however, research questions categorize them in the finding section. All of the responses from the interview participants were meticulously read coded and then categorized into themes and sub-themes.

Codes	Sub-themes	Themes
From Interview Q 1,2,6 and 7		
better learning experience Holistic development student involvement student collaboration and independent work student teacher bonding intrinsically motivated	*Students' voice and choice	Curriculum and Students' well-being
instruction and assessment ongoing assessments	*Students' friendly assessment	
conducive environment		

child-centred and skill-based thinking and problem-solving skills Skill-based is a more engaging exam based creates pressure Play way method	*Research-based curriculum (Skill-based)	
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Table 4.11- Code and themes generated from Interview Q 1,2,6 and 7

Codes From Interview Q 4,5 and 9	Sub-themes	Themes
understand students' needs curriculum understanding ownership of the reform responsibility, risks, and sacrifice build meaningful relationships open communication exchange of best practices boost confidence improve the work environment training for virtual teaching and learning New skill adaption Updated with latest trends Continuous learning teacher shortages inequitable distribution teachers struggle to adapt to and implement the curriculum high turnover hampers the learning process.	Teacher involvement in curriculum development *Teacher collaboration *Significance of professional development *Appraisal and motivation	Teachers' Well-being

teachers' insufficient knowledge non-supportive attitude		
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Table 4.13- Code and themes generated from Interview Q 3, Q8 and Q10

The data obtained from the qualitative interview was carefully read, analyzed and findings are presented in the following section. The interview questions were divided into themes to answer the research questions. As reflected in table:4.11 4.12 and 4.13, the identified themes are discussed below. Each is supported by direct quotes gathered from interviews and the relevant literature. Besides, the responses featured in the section are selected on a random basis. The researcher has tried to cover all the views expressed by the participant, and other common view responses are added in Appendix 6.

Interview: Q1, Q2, Q6 and Q7 and related to RQ 1

Theme: Curriculum and Students Well-being

Student Involvement

All participants agreed to the idea of student involvement in planning. They think that students will take responsibility for their learning if they choose what and how to learn. A few stated that:

“Learners participation in planning activities. age-appropriate activities and learners freedom to choose the activities”

“Incorporate student voice and choice. Differentiation Use active learning strategies such as brainstorming, collaboration, journaling etc. Student-led teaching Connecting learning to the real world. Create a constructivist learning environment.”

“Sharing clear objectives, effective planning and involvement of learners in deriving delivery tactics.”

One participant has highlighted one of the reasons for encouraging student involvement in planning. He stated that:

"Our learners are from different backgrounds, so their involvement would be beneficial to understand their preference based on their culture and prior knowledge."

As discussed in (LR.2.3), Madhukwini (2016) supports the idea. He suggested that the curriculum complying with social, cultural, local conditions and prior knowledge is more likely to be accepted. This might be because learners can relate things with their surroundings and daily events.

One participant heightened the consequences of not allowing students in planning activities. He said:

"Not only does the child affect you trying to teach a lesson and maintain control, but they also disrupt the productivity of the class as a whole. Children who display challenging behaviour don't usually do so 'just because they want to'. All behaviour is a form of communication."

According to the participant, students show challenging behaviour because of their disinterest in learning. Therefore, involving them in planning activities could be a remedy to improve their behaviour.

Participants also emphasised students' well-being. When student choice and voice are heard, they feel motivated and encouraged to come to school daily. It is also elicited that students should be treated equally, and focus must be given to those less able who are struggling due to some deficiencies. The construct is aligned with Njogu, 2012 who advocated the need of all learners, including those with disabilities (LR 2.3)

"Learners are at the centre of curriculum implementation. Their behaviour impacts the implementation of the curriculum. Thus, student wellbeing should be at the heart of teaching and learning. Efforts should be made to ensure students are intrinsically motivated to learn by incorporating student voice and choice in learning. Additionally, teachers must hold high expectations of all learners and challenge them as per their ability. Teaching should be differentiated to ensure all students learn. The teachers should employ various techniques such as pace, content, resources, scaffolding, etc. Positive reinforcement must be used to boost student motivation and morale further. The focus should be in praising effort and not intelligence."

Most leaders think that students are the centre point of the education system, and implementation will be effective when they are contented. Further, they believe that students' involvement in daily planning is the best way to secure their participation. They would take responsibility for their learning only when they feel connected. The thought is supported by Konings (2010) (discussed LR 2.8), who stated that implementation would suffer if learners were not provided with the opportunity to convey their perception and inform instructional strategy. Therefore, if the goal is to improve curriculum implementation, the student should be engaged in daily lesson production.

Research/skill-based Learning

The school is going through significant reform. During the interview, participants have said that the school is trying to integrate skill-based learning in the system but still following the evaluation principles of exam-based learning. As it is elicited from the responses below, exam-based learning is creating pressure on students and teachers, due to which they are not able to execute all the activities planned as a result of reform, and students are under pressure to perform better despite the change.

"A curriculum that focuses on skill-based development prepares our young learners to face the real world confidently and effectively. Having a continuous skill-based approach, rather than only an exam-based approach, automatically aligns every child's knowledge. A child's performance on an examination day is not an accurate way of evaluating the effectiveness of your curriculum"

A skill-based curriculum is more conducive to implementation as learning is not all about passing examinations but a holistic educational experience that imparts desired knowledge, values, attitudes and practical skills. It places the ownership of learning in the hands of students and helps them restrict the big gap of understanding."

"Skill-based, hands-on learning is certainly a more effective teaching technique as compared to the exam-oriented curriculum. Hands-on learning is a form of education in which children learn by doing; thereby, it engages students actively. Exam-oriented curriculum usually leads to the traditional way of a method that is lecturing. Instead of listening to a lecture, students engage with the subject matter to solve a problem or create something. Thus, it leads to increased retention, it hones students' higher order thinking skills and enjoys more while learning. On the other hand, a knowledge based curriculum is a more traditional approach to teaching and learning. Students are passive learners listening to lectures, with almost no technology integration. Since the focus is more on high academic achievement in exams and not on developing 21st-century skills, students don't enjoy this form of learning and concept clarity is also not deep".

"I believe skill-based is more conducive because the exam-oriented curriculum is simply transferring basic information .that time, students will learn and soon forget the concepts."

Most of the participants have emphasised skill-based learning as it fosters learners' critical thinking, problem-solving, and high-order thinking skills. Spriner (2017) also supported the

thought and stated that research-based education promotes analyzing, synthesizing, evaluating, and fostering students knowledge application.

"I think in a way both are important but skill based is preferred widely. Students learn and change their attitude based on what and how they have perceived it. Skill-based is useful to retain the information and exam based is meaningful to assess the learners level of understanding"

"Skill based curriculum is more conducive but everyone do not understand the importance. Parents have learnt through traditional method so they feel the same is good for their children also. They do not want to pay extra money which school charges for resources for skill based learning"

In my opinion, both should be part of the curriculum. Skill-based skills enhance the practical aspect and exam-based tests to determine whether the concept is clear.

"Skill based curriculum is a more engaging way to learn. It can lead to increased retention. It can offer practice in problem-solving and critical thinking. Whereas the exam-oriented education mode provides a fair environment and equal opportunity for students from different families with distinct backgrounds, evaluating the education results among various areas (e.g. rural and urban areas) is feasible.

A few participants think that both are equally important for the holistic development of children. However, they also shared that their parent community do not understand the value of a skill-based curriculum, which affects the effective implementation of reform. As per (Luca 1994), the examination system may be a lever or an obstacle for curriculum implementation. It depends upon the stakeholders how efficiently they perceive and pursue it. Moreover, schools have to influence curriculum reforms positively. It entails several conditions that have to be met. Such as 1) Teachers must be motivated and not unreasonably overburdened. 2) Confirming the uptake of new subject content within an existing curriculum structure. 3) Ensuring assimilation of new teaching methodologies 4) Acknowledging particular skill or knowledge by elevating the status of the previously non-examined subject, perhaps non-academic. 4) Providing constructive feedback on individual and group learners' attainment and raising standards. 5) The bodies responsible for curriculum and examination are linear and could not hinder innovation. If these conditions are met, then an exam-oriented curriculum would benefit implementation.

Student Assessment

During the interview, all participants favoured having learners friendly assessment strategy. They think that if students are demoralised and not interested in learning, it adversely affects the curriculum implementation. As one participant stated that

"Curriculum implementation revolves around learners. When the students lack interest or have low morale, there is a detrimental effect on their overall learning. Frequent absenteeism and lack of interest will disrupt their learning, leading to poor performance and understanding of concepts. This very often might impede the curriculum implementation as teachers will have to ensure all her learners are at par and will have to keep modifying her lessons, thereby leading to frequent changes in her transaction."

"I think a well-designed assessment and evaluation strategy that enables students to score better will motivate them to adopt the new curriculum."

To ensure that the learner is participating, I can plan initial and ongoing assessments that will help to identify their strengths and weaknesses in order to plan individualized plans to further help in supporting their learning process

Fullan (2011) reinforced the idea of skill-based learning and asserted that reform would be more susceptible to implement and adopt if the subject content is creatively presented to the learners with the intention of better learning and high scores. Also, Bennie and Newstead, 1999) advocated that the standard of the curriculum must be aligned with society's expectations of society. Therefore, a skill-based curriculum that includes the need of all types of learners and a well-designed assessment strategy will make reform implementation more susceptible.

Interview question: Q4, Q5 and Q9 related to RQ2

Theme: Teachers Well-being

Teacher Involvement in Curriculum Development

"Teachers are central to any curriculum development effort. Better teachers support better learning because they are most knowledgeable about the practice of teaching and are responsible for introducing the curriculum in the classroom"

"Curriculum is content, but when contextualized, it comes alive for students. The role of teachers in the curriculum process is to help students develop an engaged relationship with the content. Active learning will increase the focus and retention of the curriculum, resulting in an exciting learning environment. Teachers build lessons that include simulations, experiments, case studies and activities to deliver curriculum."

"Teachers reflect on a day-to-day basis. Their reflections help them in planning and making recommendations. Thus, involving teachers in the initial stage will bring better suggestions for curriculum development."

"Teachers' contribution is paramount in curriculum implementation. Their willingness to translate reformed curriculum is essential. It promotes the sense of responsibility, risks and sacrifice for self-made change"

All participants have echoed the significance of teacher involvement in curriculum development. From the above responses, it is apparent that teacher involvement in curriculum planning is considered a key success factor in the school. As per (Karner and Krull, 2016), the feeling of ownership shapes their attitude towards the change. It provides a sense of satisfaction and stimulates teachers to spend time and effort to fulfil the cause of the innovation. On the other hand, several studies confronted that teachers are unlikely to perform better if they are not confident about their ability and would leave the task they perceived beyond their ability. (Conner,1993).

"Teachers are the key players. Without them, whatever you plan, implementation will never be in good shape. However, I think they must be provided with proper training before their involvement."

"Teachers are the ones who implement the curriculum's content in classrooms and assess student learning. So, their involvement in curriculum development is important to understand the needs of students at a particular level and align the content in the curriculum as per the inputs of teachers. In order to get effective suggestions, I believe that teachers must be trained in this area."

However, the above responses show that a few believe that teachers possess more expertise at a functional level and might prove ineffective in curriculum planning. They highlighted the need for professional development for teachers to develop and implement reform curricula prudently. James,1986 supported the thought (LR2.8.2) and asserted that for teachers, the extent of

ownership is restricted to their knowledge level, i.e. understanding of students behaviour, ability, interests, and need of relevant resources that can make reform impressive. On the other hand, Park (2008) suggested that if the teacher lacks in understanding the curriculum from its inception, it may affect implementation. Therefore, participants' idea of professional development would be a

"Teacher collaboration has been a common element of middle grades initiatives for years, typically one or more of these three organizational models: common planning time, professional learning communities, and critical friend's groups."

"When teachers work in teams, it allows them to build meaningful relationships with their colleagues and it gives them the sense of being a part of something bigger. This sense of belonging can positively affect school culture, directly affecting student learning. Increased time and efficiency."

"Working in partnership is a healthy process. But more importantly, there should be open communication and understanding between them. Only then the collaboration will be effective in planning for curriculum implementations."

In the process of curriculum implementation, when teachers come together to share information, resources, ideas, and expertise, learning becomes more accessible and effective for students. In addition, when they communicate and share ideas, they also share an enlarged repertoire of instructional strategies that encourage creative instruction. This will in turn help in better student achievement.

remedy to overcome the barrier.

The above responses show a high ratio of an agreement to the construct. Teachers know their students better than others involved in the curriculum process. The idea concurs with Doll (1992) findings (LR 2.8.2). She stated that teachers are the founding members of curriculum development, and their role comprises developing, implementing, and evaluating the curriculum. Hence they collaborate and work in groups. Also, while the state often dictates the skills covered by the curriculum, a teacher can provide insight into the types of materials, activities and specific skills that need to be included. It is apparent from the responses that they all think the efficacy of the teacher is multiplied manifold when they collaborate. Further, the

"Collaboration among teachers for positive outcomes in curriculum implementation is a must. When teachers work together, they form meaningful professional and personal relationships. Teachers often draw support from each other and can delegate tasks that allow each teacher to feel effective. Teachers can share what worked well for them, leading to the exchange of best practices. Collaboration between teachers contributes to school improvement and student success"

above response highlighted the importance of a healthy working culture that enables teachers to learn from each other experiences.

Significance of Professional Development

"I believe that skill-based curriculums are good, but we need the training to implement them properly. And also, good quality resources are needed so that teacher will put their time and energy in effective implementation rather arranging for resources"

"Teachers are pillars for implementation, so their involvement in curriculum development is vital. But most of them have confined knowledge however, by providing professional development sessions, their efficacy can be improved"

"Management must provide our teachers with professional development courses to increase their efficacy."

"CPD sessions and professional development of the existing and new teachers can be highly effective to ensure optimal curriculum delivery"

All the participants have underlined the need for professional development for their teachers (LR 2.4.2). During the interview, they indicated that the teaching knowledge is inappropriate to transfer the reform into classrooms. Studies of several countries show that their schools have well-developed policies that underpin the teaching profession as an influential and successful career (Darling, Hammond, 2017). Additionally, in his study, Batra (2005) stated that most teachers are not skilful as per the new curriculum framework (2005) directives. NCF philosophy underpins the ideology of connecting with life outside the textbook and signifies skill-based learning over rote memorization. Therefore schools must redesign their policies to enable teachers with sufficient skills to implement curricula for improved outcomes.

Appraisal and Motivation

"Research shows again and again that teachers are the single most important factor in student achievement. Teachers need encouragement, appraisal through mentor relationships, professional development opportunities, and coaching support. These resources allow educators to continue with the school for a long time and develop the skills required to teach students from diverse backgrounds."

Yes, it has a profound impact on curriculum implementation. However, implementation cannot be successful unless learners and teachers both are happy. Management must have concrete policies that facilitate teachers' well-being.

Teachers' high turnover hampers students' learning process, and when students are not happy and satisfied, implementation can never be successful. The only potent remedy that I could think of is teachers well-being which can be catered to by recognising their work and constant motivation.

Teacher turnover affects the implementation negatively. It is the responsibility of leaders and managers to keep teachers motivated by appraisals and provide them with CPDs to cater for their well-being.

During the interview, participants indicated that the school management is going through a tough time as they find it difficult to retain teachers due to the changes in imparting pedagogies. The above responses show that teachers are resigning due to the lack of training and motivation to implement the reform curriculum. In this context, Stoll (2006) suggested that leaders are critical agents in communicating and encouraging teachers (LR 2.1.6) to connect to their job and enact a reformed curriculum. Therefore, management must identify the origin of the problem and develop a culture that stimulates teachers' well-being.

Interview question: Q3, Q8, Q10 related to RQ3

Theme: Management responsibilities

Technology Integration

"Technology integration enhances the teaching learning process. It makes learning deep, engaging, more meaningful and fun for students. It also promotes collaboration among students and hones their digital literacy, a skill essential for students' careers. It is an indispensable part of teaching in the 21st century"

"Unlike before, nowadays, learners do not want to use merely textbooks to gain knowledge. Therefore, they are more attracted to virtual learning; our teachers should be skilful at integrating virtual elements in their lesson plans."

with the curriculum it can lead to high order thinking, analysis and problem solving which further deepens the learning of students."

"Since the world has entered a digital age, Integration of technology has become eminent in education. It provides scope for differentiation, allows learners to learn at their own pace and serves as a wonderful platform for assessing and reviewing their learning"

All the participants have listed the significance of technology integration in their teaching and learning practices. Most of them think that the use of technology mitigates the problem of acquiring the cognitive and non-cognitive skills of learners. However, few have also shown concern about teachers' knowledge of using technology in classrooms. A similar kind of concern was exhibited by Trucani (2016), who stated that the significance of technology surfaced on majorly two factors; 1) ICT structure that supports equal access among students and 2) teachers prudence to use ICT resources.

School Structure and Readiness

"For an organization to succeed in planning the, management support is essential. The better the support in providing infrastructure, resources, professional training, etc., the more effective and beneficial to the organization, teachers, and students."

"The school management plays a crucial role in effective curriculum implementation. It ensures the provision of a coherent, flexible, broad and balanced curriculum that is in line with the aims of education. Review school plans and budgets to see if they align with the overall education goals and school policies and make appropriate adjustments when necessary. Above all will promote education for the school's students and lead the school to strive for excellence and continuous improvement."

"The participation of management is crucial to the curriculum implementation because they are the once who make policies, arrange for finance, resource etc."

From the responses provided by the participants, it can be elicited that in their view, support structure and school readiness are an integral part of the process of reform implementation. Participants have shared their views on the role of higher management to facilitate curriculum implementation. They primarily discussed school structure and readiness and substantiated the curriculum document and resources. The curriculum should be transparent and flexible for teachers. A pilot study must be executed to check the feasibility of the implementation. They asserted that no effective implementation could occur without management's concrete support. The idea concurs with Lumadi (2014) view that some schools prepare teachers and textbooks and inform families; however, it can't be implemented successfully unless the school is fully ready.

Communication Strategy

"High-level management support is an underlying and vital factor to govern an effective and applicable curriculum that can deliver a holistic learning objective"

"School relies on management to provide them with proper instruction on time about change. By having open communication with the implementors, management can reduce the uncertainty aids curriculum implementation."

"High-level management plays a crucial role in delivering information to operational staff. Leaders can create a conducive environment for teachers and other staff members by adopting open door policy and timely communication."

Higher management must understand the value of providing information on time. By doing so they can allow other workers to plan things accordingly.

"People are the most important aid along with a process and policy. Open effective communication platform and 360-degree interaction is a tool to ensure it"

"Leaders should create transparent and open communication so check the fidelity of teachers."

During the interview, various constructs were discussed, out of which participants have given extra weightage to the communication structure of school. For example, they indicated that higher management has a habit of not providing information on time. Participants substantiate the clear communication channel between the levels of management and staff. Also, Reinmann-

Rothmeier (1999) suggested that system reform usually aims to change the decisions; hence, implementers must be informed about all the phases of reform to achieve new goals.

Additionally, respondents believe that educators can perform better and be more organised if the information is given on time. As cited in previous responses, teachers need to be a part of decision making; therefore, the issue must be discussed before making a final decision.

Quality and Availability of Resources

"I prefer skill-based curriculum which school is trying to implement but with limited resources. We need proper training and enough resources for proper implementation"

"High level management plays an important role. They can provide feedback about the class. Resources required can be issued by their approval. Positive environment in the school"

"High level of management support may benefit effective curriculum implementation by choosing the right materials by having deep knowledge of academic standards, the instructional shifts, and research about instruction, as well as a clear understanding of how different sets of materials will or won't meet the unique needs of students in a particular district."

"Management has a crucial role to play in curriculum implementation. Management is responsible for policymaking, arranging finance, providing relevant good resources, monitoring, evaluating learners' achievements, and distributing teachers' work. Without all successful implementation is not possible."

All participants have highlighted the role of higher management in curriculum implementation. Along with other factors, the quality and availability of resources are incredibly potent. During the discussion, they talked about the knowledge level of management to implement the reform. Also, researches prove that people perceive reform based on the intensity of management to implement it. If management does not provide resources on time, perhaps it will be considered a temporary change, and teachers will not take it seriously. Unfortunately, it will affect the quality of curriculum implementation. Learners need a good education, and it's the responsibility of schools to provide it. Relevant and quality resources, knowledgeable and trained teachers, and a robust financial structure are potent for reform execution. Therefore, measures must be put in place if the target is to achieve the educational goal.

Work Allotment

The high-level management team is responsible for maintaining transparency in their system by maintaining balance in work distribution and clear instruction that facilitates curriculum implementation.

The participant has linked the problem of teacher turnover with improper work allotment. He stated that:

"Orienting and training of teachers takes time and effort, and if there is a high teacher turnover, it proves that curriculum is not being effectively implemented as teachers are still under training and observation, whereas if your teacher turnover is less, it shows the wellbeing of a teacher in a school and consistent development of curriculum will take place. Management must work on teacher retention by proper work allotment and policies for teacher well-being."

"It also shows that teachers are unhappy. With unhappy staff management can not expect good results."

The above responses show that improper work allotment may be one of the reasons for high teacher turnover in the school. In addition, participants think that teacher turnover substantially impacts student achievement, affecting curriculum implementation. Also, teachers need motivation and appraisal for their work. It will facilitate teachers well-being and result in long term retention. Stoll (2006) opined that leaders are critical agents in communicating and encouraging teachers to connect to their job and enact a reformed curriculum. Few heads shared that when teachers are not unwilling and discouraged to adopt the innovation, they tend to resign from the school. In that case, it's the responsibility of high management to identify the reason for not embracing the new tactics of reformed curricula and support teachers to adapt to the new situation.

As discussed in (LR 2.8.3), Doll (1992) opined that teachers are responsible from early-stage curriculum development until its implementation and evaluation. Therefore, teachers must be released from their classroom duties to prepare and gather resources. It is also cited earlier that teachers are less interested in enrolling on professional development courses because of the heavy workload. Hence management should work in line to facilitate teachers.

Teachers' Fidelity

"By recruiting qualified, skilled teachers and further enhance their efficacy by providing professional development sessions management can support curriculum implementation."

"Her educational background and study level can anticipate teacher fidelity. Usually, fewer professional teachers are lacking in planning and implementation. Management should organize professional development courses for such teachers."

"Teacher's insufficient knowledge and non-supportive attitude effects curriculum change. Continuous observation, weekly meetings and professional development support can help to face such challenges"

The above responses indicate the importance of teacher education while recruiting. The selection criteria of teachers entail the vision of curriculum reform so that teachers can easily accept the reform and have competent knowledge to implement in classrooms (OECD 2019)

"By routinely observing and evaluating a teacher's lesson transaction to identify areas of need and weakness and to create an individual plan for that teacher to improve in those areas. By providing constructive feedback to the teacher and review her lessons periodically to see progress. Provide buddy support for new and struggling teachers. Arrange for meaningful professional development workshops. Supply adequate resources for the teachers to effectively transact. Be approachable and establish ongoing and open communication. Allow teachers to put forward their views and opinion."

"Curricular fidelity of teacher is directly linked to the success ratio of learners. Therefore, teachers' fidelity can be checked by keeping track of students' achievements and learning gaps."

"Before monitoring fidelity, I would prefer to listen to their problems and try to solve them. In this way they get encouraged and motivated to implement curriculum honestly. Then with help of observations and one to one discussion on their challenges and achievements their fidelity can be traced."

The above response elevates the importance of clear and constant communication to understand teachers' problems (if reform is not implemented correctly). Teachers are a constant factor in the education system and thus have a key role in reform implementation. If they are not willing to adapt to the change, nothing will happen. Indeed, every change will have

some new elements which are unknown to the teacher and entails extra time and training to implement it.

Additionally, teachers' decree to implement the innovation in the classroom as proposed or follow their own beliefs is crucial as it has consequences associated with students learning (Firestone, 2010). Participants have suggested many ways to keep account of teachers' fidelity. One of the ways to monitor teachers fidelity is to check the alignment of teaching practices with the reformed evaluation and assessment guidelines. Curriculum reform aims to change what learners should learn and how educators should deliver it. The process entails the review and upgrading of agencies in accordance with the updated evaluation and assessment guidelines to bring holistic reform to the curriculum.

4.3 MM Join Visual Analysis (Table 4.14)

Research Questions	Quantitative Result			Qualitative Results		Metainferences
	Construct	Mean and SD		Themes Sub-themes	Random corresponding responses	interpretation of qualitative and quantitative data together
Q1 What are the barriers related to students?	Construct	Mean	Standard Deviation	Interview Q1, 2, 6, &7 Curriculum and Students' well-being *Student involvement *Learners-friendly assessment *Research-based curriculum	*Curriculum implementation will be effective when specific criteria like learner's background, social culture and needs are taken care of while developing a curriculum plan. * Curriculum implementation will be effective only when it is child-centred and skill-based. Nowadays, learners are super active and do not like traditional learning styles. * The curriculum must be planned as the 21 st -century requirement to	Data collected from quantitative and qualitative sources are converging. As a result, both teachers and heads share the same opinion regarding the barriers related to students in their school. Therefore, school stakeholders should work together to mitigate the gaps and stimulate
	Culture of learners	1.67	0.93			
	Level of prior knowledge	1.69	0.98			
	Opportunity to thinking skills	1.72	0.96			
	Interest in attending school daily	1.69	0.96			
	Hands-on activities and skill-based learning	1.48	0.87			
	Child centred curriculum	1.66	0.9			

			<p>be effective. I think we should engage students while planning lesson plans to take responsibility for their learning.</p> <p>* I think a well-designed assessment and evaluation strategy that enables students to score better will motivate them to adapt to the new curriculum.</p>	effective curriculum implementation.																											
Q2 What are the barriers related to Teachers?	<table><tr><th>Construct</th><th>Mean</th><th>Standard Deviation</th></tr><tr><td>Teacher contribution</td><td>1.67</td><td>0.99</td></tr><tr><td>Motivation and self-confidence</td><td>1.61</td><td>0.95</td></tr><tr><td>Incapability of comprehending the curriculum</td><td>1.69</td><td>1.0</td></tr><tr><td>Professional Development</td><td>1.70</td><td>1.01</td></tr><tr><td>Traditional teaching methods</td><td>1.79</td><td>0.98</td></tr><tr><td>Collaboration among teachers</td><td>1.69</td><td>0.97</td></tr><tr><td>Increased workload</td><td>1.60</td><td>0.97</td></tr><tr><td>High teacher turnover</td><td>1.76</td><td>0.94</td></tr></table>	Construct	Mean	Standard Deviation	Teacher contribution	1.67	0.99	Motivation and self-confidence	1.61	0.95	Incapability of comprehending the curriculum	1.69	1.0	Professional Development	1.70	1.01	Traditional teaching methods	1.79	0.98	Collaboration among teachers	1.69	0.97	Increased workload	1.60	0.97	High teacher turnover	1.76	0.94	<p>Interview Q4, 5 and 9</p> <p>Teachers' well-being</p> <p>*Teacher involvement in curriculum development</p> <p>*Teacher collaboration</p> <p>*Significance of professional development</p> <p>*Appraisal and motivation</p>	<p>* Curriculum is content, but it comes alive for students when contextualised. The role of teachers in the curriculum process is to help students develop an engaged relationship with the content. Active learning will increase the focus and retention of the curriculum, resulting in an exciting learning environment.</p> <p>* When teachers work in teams, it allows them to build meaningful relationships with their colleagues, and it gives them the sense of being a part of something bigger. This sense of belonging can positively affect school culture, which of course can directly affect student learning—increased time and efficiency.</p> <p>* Teacher's insufficient knowledge and non-supportive attitude effects curriculum change.</p> <p>* Teacher turnover affects the</p>	<p>The responses from teachers and heads converged for most of the constructs except a few. The survey results indicate a high inconsistency in teachers' comprehension of the curriculum and professional development constructs. In contrast, interviewees have mentioned the significance of teacher's knowledge and qualification and the need for professional development. It is interpreted that this divergence may lead to the delay of effective curriculum implementation. Therefore,</p>
Construct	Mean	Standard Deviation																													
Teacher contribution	1.67	0.99																													
Motivation and self-confidence	1.61	0.95																													
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High teacher turnover	1.76	0.94																													

			<p>implementation negatively. Therefore, it is the responsibility of leaders and managers to keep teachers motivated by appraisals and provide them with CPDs to cater for their well-being.</p> <p>* For effective curriculum implementation, school support and highly trained teachers are the essential elements.</p> <p>*Orienting and training of teachers take time and effort, and if there is a high teacher turnover, it proves that curriculum is not being effectively implemented as teachers are still under training and observation, whereas if your teacher turnover is less, it shows the wellbeing of a teacher in a school and consistent development of curriculum will take place. Management must work on teacher retention by proper work allotment and policies for teacher well-being.”</p>	teachers should understand the importance of curriculum knowledge and professional development, and the school must provide them with opportunities to balance the performance.																		
Q3 What are the barriers related to Teachers?	<table><tr><th>Construct</th><th>Mean</th><th>Standard Deviation</th></tr><tr><td>Difference in written and implemented curriculum</td><td>1.77</td><td>0.98</td></tr><tr><td>Knowledge of management</td><td>1.60</td><td>0.88</td></tr><tr><td>Quality textbook and Curriculum resources</td><td>1.73</td><td>0.97</td></tr><tr><td>Lack of realistic approach</td><td>1.63</td><td>0.91</td></tr><tr><td>Lack of time</td><td>1.64</td><td>0.92</td></tr></table>	Construct	Mean	Standard Deviation	Difference in written and implemented curriculum	1.77	0.98	Knowledge of management	1.60	0.88	Quality textbook and Curriculum resources	1.73	0.97	Lack of realistic approach	1.63	0.91	Lack of time	1.64	0.92	Interview Q3, 8 and 10 Management responsibilities *Technology integration *School structure and readiness *Communication strategy *Work allotment	<p>* Use of technology in curriculum implementation can improve various skills in children. If technology is integrated in an effective way with the curriculum, it can lead to high order thinking, analysis and problem solving, which further deepens students' learning.</p> <p>* Technology has provided learners with a vast horizon of</p>	Data collected from quantitative and qualitative sources are converging. Specifically, teachers have shown collective agreement with less deviation for the knowledge of management to work on the
Construct	Mean	Standard Deviation																				
Difference in written and implemented curriculum	1.77	0.98																				
Knowledge of management	1.60	0.88																				
Quality textbook and Curriculum resources	1.73	0.97																				
Lack of realistic approach	1.63	0.91																				
Lack of time	1.64	0.92																				

	Availability of resources	1.65	0.93	<p>*Quality and availability of resources</p> <p>*Teachers fidelity</p>	<p>knowledge; therefore, technology integration is a must. However, our teachers must be trained enough to guide students to use technology meaningfully.</p>	<p>implementation process. At the same time during interview while talking on various contracts interview participants have also reinforced the responsibilities of the managers for seamless execution. As a result, both teachers and heads share the same opinion regarding the barriers related to management. It is interpreted that both groups feel management should work on their strategies and simultaneously enhance their knowledge towards the gaps mentioned in the study to facilitate performance.</p> <p>.</p>
	School communication structure	1.73	0.93			
	Virtual environment	1.78	1.01			

Chapter 5 - Conclusion

5.0 Overview of the Chapter

This chapter presents a detailed discussion on qualitative and quantitative findings from survey and interview tools. Further, it informs about the study's implication, limitation, and conclusion.

5.1 Summary

Findings from this study offer quantifiable evidence and a broader perspective on eliminating barriers and incorporating best practices for effective implementation. It suggests that all three factors, student, teachers, and management, are equally crucial for the success of the execution. Firstly, to have a high student achievement ratio, management should work on their policy to engage learners effectively. Secondly, teachers and management must involve in meaningful training to overcome barriers. Finally, management must work on equal work distribution of teachers to regulate the high teacher turnover ratio and provide information to other stakeholders and involve them in the decision-making process.

5.2 Key Findings

The research findings help rule out the problems and integrate improved strategies to enhance curriculum implementation. The results are derived from the discussion with departmental heads and the insight obtained from the teachers' survey questionnaire. Both think that students are the centre point of the education system, and implementation will be effective when they are contented. Further, they believe that students' involvement in daily planning is the best way to secure their participation. They would take responsibility for their learning only when they feel connected. The thought is supported by Konings (2010) (discussed in 2.4.3.1), who stated that implementation would suffer if learners were not provided with the opportunity to convey their perception and inform instructional strategy. Therefore, if the goal is to improve curriculum implementation, the student should be engaged in daily lesson production. Additionally, student assessment helps track each student's learning progress graph. Therefore the evaluation and assessment framework should be conducive to learners needs and must follow a holistic approach.

Teachers and departmental heads have also substantiated research-based education to secure learners' interest. The study advocates for research-based learning that follows a constructivist approach that supports learning built upon prior knowledge, empower students' understanding, engages in social interaction and real-life experiences. In brief, it improves students' learning quality. Also, the study reveals the view of teacher involvement in curriculum development (construct aligns with the study of teachers ownership discussed in the literature section). Participants identify teachers cooperation and collaboration with their peers as the prime element of their professionalism, which is interconnected to their self-efficacy. Self-efficacy is a perceived ideology that informs individuals ability to accept challenges and do better in adverse situations. In this context, if teachers are confident about reformed pedagogy, they are likely to be optimists with reduced anxiety and uncertainty. On the other hand, several studies confronted that teachers are unlikely to perform better if they are not confident about their ability and would leave the task they perceived beyond their ability. (Conner,1993). Thereby lower efficacy may lead to unprecedented experience in curriculum implementation. The study also found that teachers' early involvement in the curriculum building process is essential because they develop their understanding of the curriculum based on their existing beliefs and practices. Researches show that teachers would include and preclude what they think is suitable for learners (Marshall and Kelso, 2015). At the same time, individuals whose beliefs are linear with reform tend to create a conducive environment to curriculum reform (Roehrig and Kruse 2005). In the school, all teachers are experienced and understand their learners well. Therefore, teachers and other agencies can successfully understand the need and enact the new curriculum by embracing the new information combined with existing ones. But few have raised concerns about their knowledge of distinct dimensions of curriculum and underscore the need for training. However, management must understand that change would positively impact self-initiated and develop resistance when imposed.

The findings also signify that communication and collaboration teachers share their success and failure reasons. Moreover, it gives the insight to work towards the right direction and solve problems of curriculum implementation. To this end, leaders can establish a culture where teachers can collaborate in curriculum development work and provide them training to overcome reform challenges.

The finding also reveals the need for professional development not only for teachers but also for lead members. Most of the problems identified by the study can be resolved if the professional development policy falls in place, as interviewees had linked several concerns related to curriculum implementation to the lack of professional training. For example, 100% of participants have shown their consensus for technology integration. However, a few have shown concern about the teachers' efficacy in implementing technology. In their view, integration does not suffice the purpose, but teachers need to learn how to use technology for a modified pedagogical approach and students learning experience.

The study also underscored that the communication strategy is a significant component of effective curriculum implementation. Teachers and departmental heads both think that this is something where their management has to work upon. Many leaders complain that management irrational behaviour of concealing information leads to uncertainty in roles and responsibilities of teachers and anxiety in students about their new ways of learning. As per their view, the transparency and timely information prevent pressure on implementors and motivate them to progress for new goals, whereas insufficient and ambiguous information yields confusion, inconsistency and untargeted results(Allen, 2007).

The findings indicate that curriculum reform would be more productive if teachers knew their work area. Delineating the core responsibilities for involved educators facilitate curriculum implementation (Viennet and Pont, 2017). Therefore it's leaders' responsibility to gauge educators' ability during reform and allocate work accordingly. The distribution of work must be appropriately communicated to understand what is expected from them.

The study data revealed that teachers' distinct academic backgrounds and deficiencies in curriculum planning impact implementation grossly. In addition, their insufficient knowledge of subjects and content affect fidelity. Therefore, in order to overcome the problems and maintain consistency, teachers should collaborate and cooperate among themselves, and school management should generate opportunities for their professional development.

5.3 Implication

In recent years teachers' roles have evolved entirely, and they need intrinsic motivation to elevate their professional knowledge, competence, self-confidence and interest in their profession. Furthermore, if teacher motivation is high, they apply the curriculum more effectively. Therefore leaders should create an encouraging environment and constantly focus on their appraisal to prevent high teacher turnover.

The involvement of stakeholder's agencies is highly suggestible in this context. Therefore, schools must include stakeholders in the vision of a reformed curriculum and develop goals linear to their interests.

Teachers' workload has become a critical impediment to ineffective curriculum implementation. Therefore, schools should consider restructuring their policies and practice like reducing class sizes, restructuring working time, hiring more qualified staff and associates to provide rich teaching experience with less unnecessary workload.

Researches suggest that schools should review their policy of hiring teaching professionals. They emphasize teachers' initial qualifications and look into teachers' non-cognitive skills to impart socio-emotional and transversal skills. A well-balanced combination of cognitive and non-cognitive skilled teachers could be more likely to adapt to the challenges of the new curriculum and implement it successfully.

Transparency and open-door policy in communication are crucial to success in all disciplines. Therefore, providing quality and timely information policy must be in place to stimulate a positive attitude towards implementing a reformed curriculum.

In addition, schools should consider professional development as a continuous process and start investing in teachers' selection and extending to different stages of the teaching profession in order to enhance teachers' efficacy to new curriculum implementation.

5.4 Limitation

The study has some limitations related to participants and research design. Firstly, the study has included teachers and departmental heads; however, students' and higher management sensitivities would have added value to the results. Secondly, other than survey and interview, observation of

classroom implementation would increase the validity of data; but, due to ethical issues, permission was not granted. Finally, the involvement of more than one school would have produced profound insight into the subject; however, due to corona protocols, other schools were not approached.

5.5 Scope for Further Study

The study suggests that future studies must include students and management contributions to understand the subject from different perspectives. In addition, future researchers are advised to involve more schools that are either already involved or at the planning stage of reform.

5.6 Conclusion

The UAE education system has acknowledged curriculum reform as crucial for schools to acquire 21st-century skills and compete in a rapidly evolving world. But unfortunately, not many studies have been carried out to identify the problems and provide solutions to curriculum implementation. Therefore, this study intended to identify barriers to curriculum implementation in one of the schools of Dubai and provide implications for other schools for optimal teaching and learning experience. The following research questions guided the study.

Main Question:

Q1 What are the barriers of curriculum implementation that hinder optimal teaching and learning?

Sub Questions:

- 1) What are curriculum implementation problems related to students?
- 2) What are curriculum implementation problems associated with teachers?
- 3) What are curriculum implementation problems related to school and management?

In addition, the research design applied the MM approach and used 4 Likert scale survey questionnaires and semi-structured interviews to address the research questions. There were 150 participants for quantitative and 15 for qualitative in the study. The qualitative and quantitative data revealed that teachers and heads are on common grounds on most of the construct; however, a few gaps create barriers to effective curriculum implementation. The study identified that lack of professional development training is the most crucial barrier in the system. Teachers and other stakeholders need to undergo intense professional training to execute the reform successfully.

Furthermore, the result shows positive responses from the stakeholders regarding student involvement in planning. Therefore, decision-makers must develop a policy to facilitate the construct. In addition, as suggested by all participants, management should work on their communication structure, professional development and teachers workload to streamline the process.

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APPENDICES

Appendix 1

Survey Consent Form

Name of the researcher: Aaisha Haque

Title of the research: Effective implementation of curriculum for optimum teaching and learning experience.

Aim: The study aims to identify the challenges associated with curriculum implementation and derive strategies to improve practices.

Rationale: The UAE education sector is experiencing a substantial and constant revolution in curricula. With an increasing emphasis on youth development and employability in the middle east, the United Arab Emirates has made significant efforts to re-imagine and reform its education sector. Education authorities have implemented many reforms to shift education from rote memorization to skilled-based learning that prepares students to thrive in the 21st century. Therefore, to adopt the trend, schools have to refine their curriculum and integrate conducive practices. With this aim, the researcher is trying to identify the problems related to the curriculum execution and provide solutions to augment teaching and learning practices.

Note: This form is intended to take your consent as a survey participant and understand and analyze your perception of effective curriculum implementation.

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. ☐

I understand that my responses will be kept strictly confidential. ☐

I agree that my responses will be used for the researcher's Master's Thesis Research purpose. ☐

I agree to take part in the above research study. ☐

- Name of Participant

Signature of Participant

Appendix 2

Online Survey Form for Teachers

Curriculum implementation problem related to students

Description (optional)

The culture of learners has a profound impact on curriculum implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Students' different level of prior knowledge inhibits effective implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Students' lack of opportunity to improve higher-order thinking skills prevents effective curriculum implementation. (1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Students' lack of interest in attending school daily inhibits effective implementation. (1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Curriculum implementation problem related to teachers

Description (optional)

Lack of teachers' contribution in the curriculum development prevents effective implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Lack of teachers' motivation and self-confidence impact curriculum implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Teachers' incapability of comprehending the curriculum impacts on curriculum implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Lack of teachers' professional development affects curriculum implementation
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Execution of traditional teaching methods affects curriculum implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Lack of collaboration among teachers affects effective curriculum implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Teachers increased workload affects curriculum implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Curriculum implementation problem related to management

Description (optional)

There is always a difference in written and implemented curriculum.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Knowledge of management influences the implementation of effective curriculum. (1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Lack of realistic approach of curriculum developers affects curriculum implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Lack of time affects curriculum implementation. (1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Availability and quality of resources affects curriculum implementation.
(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

1	2	3	4
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

School communication structure impacts curriculum implementation.

(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

High teacher turnover impacts the quality of curriculum implementation.

(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Curriculum implementation problem related to other factors

Description (optional)

Curriculum should be child-centred to be implemented successfully.

(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Virtual learning environment enables curriculum to be implemented more effectively.

(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

The curriculum encompasses hand-on activities, and skill-development are more susceptible to implement.

(1=Strongly Agree, 2=Agree, 3=Disagree, 4= Strongly Disagree)

	1	2	3	4	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Appendix 3

Appendix 4

Questionnaire for Qualitative Research

Questionnaire for departmental and subjects' heads:

Q1. What do you know about curriculum implementation?

Q2. What is your opinion about skill-based (hands-on) and exam-oriented (only knowledge) curricula?

Which one is more conducive to implement and why?

Q3. What is your perception of technology integration to enhance curriculum implementation?

Q4. What do you think about the teachers' contribution to curriculum development and why?

Q5. What do you think about teachers' collaboration for productive results in curriculum implementation?

Q6. What strategy would you implement to improve learners' participation in curriculum adoption?

Q7. How do you think learners' behaviour (absenteeism, low morale) affects curriculum implementation?

Q8. How do you think high-level management support may benefit effective curriculum implementation?

Q9. Do you think high teacher turnover affects curriculum implementation? Why or why not?

Q10. As a head of the department, how do you monitor the curricular fidelity of teachers?

Appendix 4

Interview Consent Form

Name of the researcher: Aaisha Haque

Title of the research: Effective implementation of curriculum for optimum teaching and learning experience.

Aim: The study aims to identify the challenges associated with curriculum implementation and derive strategies to improve practices.

Rationale: The UAE education sector is experiencing a substantial and constant revolution in curricula. With an increasing emphasis on youth development and employability in the middle east, the United Arab Emirates has made significant efforts to re-imagine and reform its education sector. Education authorities have implemented many reforms to shift education from rote memorization to skilled-based learning that prepares students to thrive in the 21st century. Therefore, to adopt the trend, schools have to refine their curriculum and integrate conducive practices. With this aim, the researcher is trying to identify the problems related to the curriculum execution and provide solutions to augment teaching and learning practices.

Note: This form is intended to take your consent as a survey participant and understand and analyze your perception of effective curriculum implementation.

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. ☐

I understand that my responses will be kept strictly confidential. ☐

I agree that my responses will be used for the researcher's Master's Thesis Research purpose. ☐

I agree to take part in the above research study. ☐

- Name of Participant

Signature of Participant

Appendix 5

Transcription of Qualitative responses

Responses of interview Q1

Participants	Responses
1	Curriculum implementation is the execution of text into a classroom in a form of activities. It will be effective when it is executed the way it is planned.
2	Curriculum implentation will be effective when certain criterias like learners background, social culture and needs are taken care of while developing curriculum plan.
3	The implementation will be effective when it is understood and delivered as per planned.
4	Curriulum must be planned as per the requirement and needs of learners then only it will have good impact on its implementation.
5	Effective curriculum implementation refers to how teacher deliver instruction and assessment through use of specified resources provided in the curriculum.
6	Curriculum implementation will be effective only when it is child- centered and skill based. Nowdays leaners are superactive and do not like traditional learning styles.
7	Curriculum must be plan as the need of 21 st century requirement to be effective.
8	Curriculum design plays a major role in its effective implementation. While designing school support, capacity and teachers' knowledge must be taken care of.
9	For effective curriculum implementation school support and higly trained teachers are the essential element.
10	Curriculum will be effective when it is delivered as it is written by following and completing all the goals and objectives.
11	While designing a curriculum, designer must take care of school efficacy to support the document then only it can be implemented successfully.
12	The degree of curriculum implementation decides the failure and success of any educational organization. It depends on the educator how they translate the written document into real classroom setting. Successful curriculum implementation can be evaluate with the outcomes of students. When learners achieved the intended objectives and showing positive attitude to life it means curriculum is implemented very well.
13	Curriculum document must have scope to make adjustments if any problem arrives. In this way, implementation will be easier and effective.
14	The way with which a curriculum is transacted to the children in classrooms. In other words, the ability of teachers to enable pupils to understand key concepts, present information clearly and promote appropriate discussion; check pupils' understanding effectively, identify and correct misunderstandings, and ensure that pupils embed key concepts in their long-term memory and apply them fluently. Also involves assessment during and after the lesson to check the understanding of learners and usage of assessment data.
15	Curriculum implementation process involves helping the learner acquire knowledge or experience. Successful implementation takes place when curriculum is designed as per need of learner to acquires the intended experiences, knowledge, skills, ideas and attitudes that are aimed at enabling the same learner to function effectively in a society.

Responses of interview Q2

Participants	Q2 Responses
1	Skill based helps child to improve their thinking and solving skills
2	Skill based curriculum is a more engaging way to learn. It can lead to increased retention. It can offer practice in problem-solving and critical thinking. Whereas the exam-oriented education mode provides a fair environment and equal opportunity for students from different families with distinct backgrounds, evaluating the education results among various areas (e.g. rural and urban areas) is feasible. A skill-based curriculum is more conducive to implementation as learning is not all about passing examinations but a holistic educational experience that imparts desired knowledge, values, attitudes and practical skills. It places the ownership of learning in the hands of students and helps them restrict the big gap of understanding.
3	In my opinion, both should be part of the curriculum. Skill-based skills enhance the practical aspect and exam-based tests to determine whether the concept is clear.
4	Skill-based or hands-on activity is a more engaging way to learn. It can lead to increased retention and offer practice in problem solving and critical thinking whereas exam based creates pressure that prevents the administration of all curriculum activities. As a result, teachers are busy in delivering the content and not getting enough time to execute all activities planned.
5	A curriculum that focuses on skill-based development prepares our young learners to face the real world confidently and effectively. Having a continuous skill-based approach, rather than only an exam-based approach, automatically aligns every child's knowledge. A child's performance on an examination day is not an accurate way of evaluating the effectiveness of your curriculum.
6	In my opinion hands on activities engages children in more effective way and it improves their communication, critical thinking and creativity. They also stay interested and focused in their learning. Exam oriented curriculum is easier to implement but less effective and demands for more resources.
7	Working with young learners, I believe that children should be taught through hands on activities as when they explore and experiment they learn with interest. But in the exam-oriented curriculum, we are not getting enough time to cater to individual needs as we hurry to complete our syllabus before the examination date.
8	Skill-based curriculum is more conducive to implement provided means are available as the activities planned in itself will tend to the needs of learners in understanding and application of the concept. In other words, learning by doing will retain in their minds more comprehensively.
9	Skill-based, hands-on learning is certainly a more effective teaching technique as compared to exam-oriented curriculum. Hands-on learning is a form of education in which children learn by doing, thereby it engages students actively. Exam-oriented curriculum usually leads to traditional way of methods that is lecturing. Instead of listening to a lecture, students engage with the subject matter to solve a problem or create something. Thus, it leads to increased retention, it hones students' higher order thinking skills and students enjoy more while learning. On the other hand, knowledge based curriculum is a ore traditional approach to teaching and learning. Students are passive learners as they listen to lectures, with almost no technology integration. Since the focus is more on high academic achievement in exams and not on developing 21st century skills, students don't enjoy this form of learning and concept clarity is also not deep.
10	I believe skill-based is more conducive because the exam-oriented curriculum is simply transferring basic information .that time, students will learn and soon forget the concepts.
11	I think skill based curriculum are the best for learners. Skill based are more conducive because learners are interested and it's easy to obtain good results whereas exam-oriented curriculum is superficial and does not support to develop to think critically.
12	I think in a way both are important but skill based is preferred widely. Students learn and change their attitude based on what and how they have perceived it. Skill-based is useful to retain the information and exam based is meaningful to assess the learners level of understanding.
13	I believe that skill based curriculums are good but we need training to implement them properly. And also good quality resources are needed so that teacher will put their time and energy in effective implementation rather arranging for resources.
14	I prefer skill-based curriculum which school is trying to implement but with limited resources. We need proper training and enough resources for proper implementation.
15	Skill based curriculum is more conducive but everyone do not understand the importance. Parents have learnt through traditional method so they feel the same is good for their children also. They do not want to pay extra money which school charges for resources for skill based learning.

Responses of interview Q3

Participant	Q3 Responses
1	Good approach for skill-based growth.
2	Technology allows teachers to customize learning and create varying levels of scaffolded support rather than to deliver a one-size-fits-all approach to instruction merely.
3	Technology has become the vital part of any sector. So, it's imperative that technology has to be part of curriculum. Management should make arrangements to train their teaching staff to use this blessing effectively.
4	As per my observation main reasons for taking an online class by the students were "flexibility" and "self-control" within the learning environment, Students need learning experiences to be relevant and meaningful. For this to occur, activities need to include the use of technology to acquire, demonstrate, apply, and communicate information.
5	Technology is the new era and enhancing and updating tech skills in children is necessary. However, teachers must be skillful in integrating technology in their planning.
6	Use of technology in curriculum implementation can improve various skills in children. If technology is integrated in an effective way with the curriculum it can lead to high order thinking, analysis and problem solving which further deepens the learning of students.
7	Its the 21st century & teachers need to integrate their concepts to enhance curriculum. Technology plays an important role in a Child's life and making use of this under adult supervision will benefit the child's learning process
8	Since the world has entered a digital age, Integration of technology has become eminent in the field of education. It provides scope for differentiation, allows learners to learn at their own pace and serves as a wonderful platform for assessment and review of their learning.
9	Technology integration enhances the teaching learning process. It makes learning deep, engaging, more meaningful and fun for students. It also promotes collaboration among students and hones their digital literacy, a skill essential for students' careers. It is an indispensable part of teaching in the 21st century.
10	In present time technology is must to enhance learning experiences. I would prefer to integrate technology in all lessons some or the other way. But my teachers are not so expert in technology handling therefore I think higher management should conduct professional development sessions with IT department of our school.
11	I think that's the best strategy in today's era.
12	I am a great proponent of technology integration. Technology help learners to visualize and understand concepts in a better way.
13	Unlike before, nowadays, learners do not want to use merely textbooks to gain knowledge. They are more attracted towards virtual learning therefore; our teachers should be skillful at integrating virtual elements in their lesson plans.
14	Technology has superseded the key role in many professions. Technology integration is inevitable if we want our learners to compete with the existing trend.
15	Technology has provided learners with a vast horizon of knowledge; therefore, technology integration is a must. However, our teachers must be trained enough to guide students to use technology meaningfully.

Responses of interview Q4

Participants	Q4 Responses
1	Teachers are pillars for implementation, so their involvement in curriculum development is vital. But most of them have confined knowledge however, by providing professional development sessions, their efficacy can be improved.
2	Teachers are central to any curriculum development effort. Better teachers support better learning because they are most knowledgeable about the practice of teaching and are responsible for introducing the curriculum in the classroom
3	Educators are the mind behind any curriculum as they are the ones who implement the curriculum. Our school has efficient teachers, but I think they need to be more groomed in all aspects of the curriculum. Management must provide our teachers with professional development courses to increase their efficacy.
4	Curriculum is content, but when contextualized, it comes alive for students. The role of teachers in the curriculum process is to help students develop an engaged relationship with the content. Active learning will increase the focus and retention of the curriculum, resulting in an exciting learning environment. Teachers build lessons that include simulations, experiments, case studies and activities to deliver curriculum.
5	Teacher is the one who works closely with her students. She can make her final evaluation based on the learning outcome, accommodation needed and a reevaluation. A team meeting to discuss and compare the results with other teachers will help in enhancing or modifying the curriculum.
6	Teachers are the one who implement the content of the curriculum in classrooms and assesses student learning. So, their involvement in curriculum development is important to understand the needs of students at a particular level and align the content in curriculum as per the inputs of teachers. In order to get effective suggestions, I believe that teachers must be trained in this area.
7	Teachers reflect on a day-to-day basis. Their reflections help them in planning and making recommendations. Thus, involving teachers in the initial stage will bring better suggestions for curriculum development.
8	The teachers have remained and will continue to play a major role in curriculum development. Being at the ground level, they literally experience the scenarios posed by a certain curriculum and therefore, have a better understanding of curriculum implementation. This knowledge of teachers will help in curriculum development, enhancement and modification.
9	Teachers must be actively engaged in curriculum development. With their knowledge, experiences and competencies, teachers are central to any curriculum development effort. Teachers can contribute by collaboratively and effectively working with curriculum development heads/teams to arrange and compose textbooks, digital resources, and other resources. Teacher involvement in the process of curriculum development is important to align content of curriculum with students needs in the classroom.
10	Teacher are the sole of implementation. Without their support curriculum reform cannot bring into practice. Therefore, their contribution is paramount.
11	Teachers are the key players. Without them whatever you plan, implementation will never be in good shape. However, I think they must be provided with proper training before their involvement.
12	Teachers are the pillar of curriculum development process as they are the once who bring thoughts into existence. Their contribution at the early stage is the key of successful implementation.
13	Teachers' contribution is significant for the successful implementation. They should take ownership of the reform that leads to responsibility and self-satisfaction.
14	Teachers' contribution is paramount in curriculum implementation. Their willingness to translate reformed curriculum is essential. It promotes the sense of responsibility, risks and sacrifice for self-made change.
15	Teachers are an integral part of the implementation. Their contribution to curriculum development makes them authoritative for the change. As a <u>result</u> they are motivated to put their best to obtain better outcomes.

Responses of interview Q5

Participant	Q5 Responses
1	Collaborative mind always has successful story
2	Teachers know their students better than others involved in the curriculum process. While the state often dictates the skills covered by the curriculum, a teacher can provide insight into the types of materials, activities and specific skills that need to be included. so Teacher collaboration has been a common element of middle grades initiatives for years, typically one or more of these three organizational models: common planning time, professional learning communities, and critical friend's groups.
3	Since every teacher have their own individual experience. So, it's always better to collaborate and design the process of curriculum implementation.
4	When teachers work in teams, it allows them to build meaningful relationships with their colleagues and it gives them the sense of being a part of something bigger. This sense of belonging can positively affect school culture, which of course can directly affect student learning. Increased time and efficiency.
5	Teachers have to collaborate with each other to align their evaluation and come to a conclusion on the effectiveness of their curriculum, furthermore make the required modifications and enhance their curriculum and look into effective implementation.
6	Teachers' collaboration facilitates them to share their experiences, ideas and expertise which can support in effective implementation of curriculum.
7	Working in partnership is a healthy process. But more importantly there should be open communication and understanding between them. Only then the collaboration will be effective in planning for curriculum implementations.
8	In the process of curriculum implementation, when teachers come together to share information, resources, ideas, and expertise, learning becomes more accessible and effective for students. When they communicate and share ideas, they also share an enlarged repertoire of instructional strategies that encourage creative instruction. This will in turn help in better student achievement.
9	Collaboration among teachers for positive outcomes in curriculum implementation is a must. When teachers work together, they form important professional and personal relationships. Teachers often draw support from each another and can delegate tasks that allow each teacher to feel effective. Teachers can share what worked well for them and this leads to exchange of best practices. Collaboration between teachers contributes to school improvement and student success.
10	That the best strategy to employ. They can learn from each other's experiences and perform better.
11	Teachers' collaboration is must to get better results. When teachers are sharing and learning they are doing better.
12	Collaboration provides teachers with better thinking, self-motivation, ownership and sense of shared responsibility. Teachers working in a group are likely to be happier and successful in their goals.
13	Collaboration facilitates teachers to share their accomplishments and challenges that can be useful for other team members.
14	Collaboration among team members boost confidence and improve the work environment resulting in effective change implementation.
15	Collaboration helps teachers to share their ideas and experiments with peer teachers and motivate them to perform better. This practice has positive effect on change implement.

Responses of interview Q6

Participants	Q6	Responses
1		Building good student teacher relationship, planning interesting lesson, Students centered learning, hands on activities, encouragement, rewards for good work, questioning, group activities, discussions, collaboration etc will improve learners participation.
2		Learners participation in planning activities, age appropriate activities and learners freedom to choose the activities.
3		Assess students' prior knowledge and customize lesson plans. Provide ample opportunities for student collaboration and independent work. Give student a choice in how they learn the concept taught. (Differentiation through resources)
4		Incorporate student voice and choice. Differentiation Use active learning strategies such as brainstorming, collaboration, journaling etc. Student-led teaching Connecting learning to the real world. Create a constructivist learning environment
5		Use of technology, celebration of success, collaboration, open discussion forum, students contribution in curriculum planning and designing upto certain level and peer learning.
6		Hands on activities, play way learning methods, field trips, extended classroom approach.
7		More skill based activities Independent tasks Positive environment
8		To ensure that the learner is participating, I can plan initial and ongoing assessments that will help to identify their strengths and weaknesses in order to plan individualized plans to further help in supporting their learning process.
9		Play way method will work for all the ages
10		Use of technology, group activities, collaboration, hands on experience.
11		Sharing clear objectives, effective planning and involvement of learners in deriving delivery tactics. Will be way to go ideas. when buying is their with learners we can can find new and interesting ways to implement and plan. learning lessons.
12		Assess student's prior knowledge and tailor your lessons to build on what students already know. Allow for student collaboration. Use the jigsaw strategy. Give students a task during your lessons. Give student a choice in how they learn.
13		Our learners are from different background so their involvement would be beneficial to understand their preferesnce based on their culture and
14		Use of technology, celebration of success, collaboration, open discussion forum, students contribution in curriculum planning and designing upto certain level and peer learning
15		I think well-designed assessment and evaluation strategy that enables students to score better will motivate them to adopt to the new curriculum

Responses of interview Q7

Participants	Q7	Responses
1		Progression will not be evident.
2		Absenteeism is the cause of pile up the backlog in terms of learning and objective achievement, and low morale is one of the attributes incurred due to that. Both are hinderers in the delivery of the curriculum. The gap created by absenteeism causes urgency and a lack of learning. IN result bring down up low morale.
3		Low morale and absenteeism have a negative effect on curriculum implementation.
4		Not only does the child affect you trying to teach a lesson and maintain control, but they also disrupt the productivity of the class as a whole. Children who display challenging behavior don't usually do so 'just because they want to'. All behavior is a form of communication.
5		Wellbeing of the students matters the most. Work towards it, have a great student teacher bonding. Student readiness matters only then curriculum can be implemented.
6		Unconducive teaching and learning environment led to low morale and absenteeism negatively affect students learning and curriculum implementation.
7		When planning the curriculum all factors are considered. Hence the behavior will certainly impact but shouldn't affect at large. It is temporary and with proper guidance can be sorted out.
8		Curriculum implementation revolves around learners. When the students lack interest or have a low morale, there is a detrimental effect on their overall learning. Frequent absenteeism and lack of interest will lead to a disruption in their learning, leading to a poor performance and understanding of concepts. This very often might impede the curriculum implementation as teachers will have to ensure all her learners are at par and will have to keep modifying her lessons, thereby leading to frequent changes in her transaction.
9		Learners are at the center of curriculum implementation. Their behavior impacts the implementation of the curriculum. Thus, student wellbeing should be at the heart of teaching and learning. Efforts should be made to ensure students are intrinsically motivated to learn by incorporating student voice and choice in learning. Additionally, teachers must hold high expectations of all learners and challenge them as per their ability. Teaching should be differentiated to ensure all students learn. A host of differentiation techniques such as pace, content, resources, scaffolding etc., should be employed by the teachers. Positive reinforcement must be used to further boost student motivation and morale. Focus should be in praising effort and not intelligence.
10		It has a great impact on implementation. These results show that where the concept is delivered properly or not. Their absenteeism will affect this data.
11		Yes, it does affects. Along with the concepts comprehension student's wellbeing is paramount. It leads to self-satisfaction and better outcomes.
12		It is necessary to provide children with conducive environment to learn. In its absence, children feel disregarded and insignificant to their cohort. This feeling impacts their moral and social values. ultimately it reflects a negative impact on curriculum implementation.
13		Student absence has negative impact on curriculum. It will affect the progression data of the whole class.
14		Since students are the center of teaching and learning, their absence will jeopardize the whole system.
15		Learners' absenteeism and low morale will prevent students from making good relations with teachers and friends. Eventually, it will affect curriculum implementation negatively.

Responses of interview Q8

Participant	Q8 Responses
1	By recruiting qualified skilled teachers and further enhance their efficacy by providing profession development sessions management can support curriculum implementation.
2	High-level management support is an underlying a vital factor to govern an effective and applicable curriculum which can deliver a holistic objective of learning. It works as a waterfall if you have a depth of support including high availability of resources and directions. Learning stream will be a consistent and commendable flow. That will bring a consistency, cohesiveness and do check all the boxes in applying due diligence of implementing high achieving learning objectives.
3	High level management plays an important role. They can provide feedback about the class. Resources required can be issued by their approval. Positive environment in the school.
4	High level of management support may benefit effective curriculum implementation by choosing the right materials by having deep knowledge of academic standards, the instructional shifts, and research about instruction, as well as a clear understanding of how different sets of materials will or won't meet the unique needs of students in a particular district.
5	They will ensure good infrastructure and provide quality resources.
6	Providing CPDs for teachers, providing resources and conducive environment
7	For an organization to succeed in planning the management support is essential. The better the support in providing infrastructure, resources, professional trainings etc. the outcome would be effective and beneficial to the organization, teachers and students.
8	The school management plays a crucial role in effective curriculum implementation. It ensures provision of a coherent, flexible, broad and balanced curriculum that is in line with the aims of education. Review's school plans and budgets to see if they are in line with the overall education goals and school policies, and makes appropriate adjustment when necessary. Above all will promote education for the students of the school and leading the school to strive for excellence and continuous improvement.
9	CPD sessions and professional development of the existing and new teachers can be highly effective to ensure optimal curriculum delivery. Additionally, they can procure equipment and materials needed for effective learning. They can plan for the improvement of school facilities and support teachers at every step.
10	The participation of management is crucial to the curriculum implementation because they are the once who make policies, arrange for finance, resource etc.
11	Management has a crucial role to play in curriculum implementation. Management is responsible for policy making, arranging finance, providing relevant good quality resourced, monitoring, evaluating learners' achievements and distribution of teachers work. Without all successful implementation is not possible.
12	School relies on management to provide them with proper instruction about change. By having open communication with the implementors, management can reduce the uncertainty aids curriculum implementation. Therefore, without management support and guidance successful implementation is not possible.
13	High- level management plays a crucial role. Leaders can create conducive environment for teachers and students to adopt reformed curriculum.
14	School leaders play a key role initiating, communicating and convincing teachers to implement reformed curriculum by providing them with conducive environment.
15	The high-level management team is responsible for maintaining transparency in their system by maintaining balance in work distribution and clear instruction that facilitates curriculum implementation.

Responses of interview Q9

Participants	Q9	Responses
1		Yes, it leaves a negative impact on students and parents, resulting in ineffective implementation.
2		The failure to retain teachers has a generally negative impact on students and schools. Problems with teacher turnover contribute significantly to teacher shortages and result in the inequitable distribution of adequate and qualified teachers across schools. thus, effecting in the curriculum implementation.
3		Yes, it does not show positive affect on curriculum implementation. If the teachers are leaving it not only costs financially but also effect the student educational aspect.
4		Research shows again and again that teachers are the single most important factor in student achievement. Teachers need support through mentor relationships, professional development opportunities, and coaching support. These resources allow educators to continue with the school for a long time and develop the skills required to teach students from diverse backgrounds.
5		Yes, it does. Orienting and training of teachers takes time and effort and if there is a high teacher turnover it proves that curriculum is not being effectively implemented as teachers are still under training and observation, whereas if your teacher turnover is less it shows the wellbeing of a teacher in a school and consistent development of curriculum will take place.
6		Yes, high level of teacher's turnover affect curriculum implementation. New teachers struggle to adapt to and implement curriculum.
7		Yes, the school invests in training teachers as an ongoing process, their turnover will impact financially and in curriculum implementation. To train new staff is time taking and sometimes may not be beneficial.
8		Teacher turnover has a negative impact on curriculum implementation. High turnover undermines students' achievements. This is because the curriculum implementation suffers a setback due to the continuous change in teachers and children find in difficult to adjust to the teaching style of different teachers.
9		Yes, it definitely affects curriculum implementation. Each organization has its own curated curriculum and resources. If a new teacher joins, she has to be given rigorous training in best practices in teaching to meet the expectations of the organization. Thus, teacher turn over affects curriculum implementation.
10		Yes, it does. It also shows that teachers are unhappy. With unhappy staff management cannot expect good results.
11		Yes, it does. Young learners are usually connected to their teachers and then learn better. Teacher replacement might affect their ability to learn.
12		Teacher turnover does affect the curriculum implementation but particularly it depends on the age group of the learners. Usually, young learners are affected the most.
13		Teacher turnover effects the implementation negatively. It a responsibility of leaders and management to keep teachers motivated by appraisals and provide them with CPDs to cater their well-being.
14		Yes, it has a profound impact on curriculum implementation. Implementation cannot be successful unless learners and teachers both are happy.
15		Teachers' high turnover hampers the learning process of students and when students are not happy and satisfied, implementation can never be successful.

Responses of interview Q10

Participant	Q10 Responses
1	Teachers' fidelity can be traced by monitoring new teaching approaches and student assessment framework.
2	People are the most important aid along with a process and policy. Open effective communication platform and 360-degree interaction is a tool to ensure it. Delivery of effective Curriculum and accountability of teachers is in line with integrity with laid process and applications tools. Keeping transparency with all custodians will ensure each one committed and uphold ownership.
3	Firstly, by the feedback shared by teachers. Secondly by peer observation and high-level observation Then the outcome or score obtained by skill-based test taken for the children.
4	Attend subject area meetings. Provide informal written feedback to teachers about program. Visit classrooms daily to view programs. Review adopted curriculum guides. Use budget to ensure necessary materials are available. Review copies of interdisciplinary units and "spot check" lesson plans. Attend in-services on programs.
5	Teacher observations, buddy programs, mock drills, internal inspections, comparing attainment and progress
6	Frequent observations, check list, peer feedback, are helpful to monitor curricular fidelity of teachers.
7	Observing, providing constructive feedback, ensuring open communication, designing a well-planned curriculum & conducting training.
8	By routinely observing and evaluating a teacher's lesson transaction to identify areas of need and weakness and to create an individual plan for that teacher to improve in those areas. By providing constructive feedback to the teacher and review her lessons periodically to see progress. Provide buddy support for new and struggling teachers. Arrange for meaningful professional development workshops. Supply adequate resources for the teachers to effectively transact. Be approachable and establish ongoing and open communication. Allow teachers to put forward their views and opinion.
9	Regular department meetings, lesson observations, peer observations, pre and post conference meetings, fostering collaboration among team members to facilitate exchange of best practices. Ensuring wellbeing of the team.
10	I would like to hold meeting as and when needed to understand their perspective and observe them constantly
11	Before monitoring fidelity, I would prefer to listen to their problems and try to solve them. In this way they get encouraged and motivated to implement curriculum honestly. Then with help of observations and one to one discussion on their challenges and achievements their fidelity can be traced.
12	Curricular fidelity of teacher is directly linked to the success ratio of learners. Therefore, teachers' fidelity can be checked by keeping track of student's achievements and gap in learning.
13	Teacher fidelity can be anticipated by her educational background and study level. Usually, fewer professional teachers are lacking in planning and implementation. Management should organize professional development courses for such teachers.
14	Teacher's insufficient knowledge and non-supportive attitude effects curriculum change. Continuous observation, weekly meetings and professional development support can help to face such challenges.
15	Leaders should create transparent and open communication so check the fidelity of teachers.

Appendix 6

Participants	Responses	Codes	Themes
1	Curriculum implementation is the execution of text into a classroom in a form of activities. It will be effective when it is executed the way it is planned.	executed the way it is planned.	Curriculum and Student well-being
2	Curriculum implentation will be effective when certain criterias like learners background, social culture and needs are taken care of while developing curriculum plan.	learners background, social culture and needs are taken care of	
3	The implementation will be effective when it is understood and delivered as per planned.	Deliver as per the plan	
4	Curriulum must be planned as per the requirement and needs of learners then only it will have good impact on its implementation.	planned as per the requirement and needs of learners	
5	Effective curriculum implementation refers to how teacher deliver instruction and assessment through use of specified resources provided in the curriculum.	how teacher deliver instruction and assessment	
6	Curriculum implementation will be effective only when it is child- centered and skill based. Nowadays leaners are superactive and do not like traditional learning styles.	child- centered and skill based.	
7	The curriculum must be planned as the 21 st - century requirement to be	21 st century requirement	

	effective. I think we should engage students while planning lesson plans so that they can take responsibility for their learning.		
8	Curriculum design plays a major role in its effective implementation. While designing school support capacity and teachers knowledge must be taken care of	school support structure and teachers knowledge	
9	For effective curriculum implementation school support and highly trained teachers are the essential element.	school support and highly trained teachers	
10	Curriculum will be effective when it is delivered as it is written by following and completing all the goals and objectives.	Following and completing all the goals and objectives.	
11	While designing a curriculum, designer must take care of school efficacy to support the document then only it can be implemented successfully.	school efficacy to support the document	
12	The degree of curriculum implementation decides the failure and success of any educational organization. It depends on the educator how they translate the written document into real classroom setting. Successful curriculum implementation can be evaluate with the outcomes of students. When learners achieved the intended objectives and showing positive	can be evaluate with the outcomes of students	

	attitude to life it means curriculum is implemented very well.		
13	Curriculum document must have scope to make adjustments if any problem arrives. In this way, implementation will be easier and effective.	have scope to <u>make adjustments</u>	
14	The way with which a curriculum is transacted to the children in classrooms . In other words, the ability of teachers to enable pupils to understand key concepts, present information clearly and promote appropriate discussion; check pupils' understanding effectively, identify and correct misunderstandings, and ensure that pupils embed key concepts in their long-term memory and apply them fluently. Also involves assessment during and after the lesson to check the understanding of learners and usage of assessment data.	curriculum is transacted to the children in classrooms	
15	Curriculum implementation process involves helping the learner acquire knowledge or experience. Successful implementation takes place when curriculum is designed as per need of learner to acquires the intended experiences, knowledge, skills, <u>ideas</u> and attitudes that are aimed at enabling the same learner to function effectively in a society.	when curriculum is designed as per need of learner	

Q2. What is your opinion about skill-based(hands-on activity) and exam- oriented (only knowledge) curriculum? Which one is more conducive to implement and why?

Participants	Responses	Codes	Themes
1	Skill based helps child to improve their thinking and solving skills	their thinking and solving skills	Curriculum and student wellbeing
2	Skill based curriculum is a more engaging way to learn. It can lead to increased retention. It can offer practice in problem-solving and critical thinking. Whereas the exam-oriented education mode provides a fair environment and equal opportunity for students from different families with distinct backgrounds, evaluating the education results among various areas (e.g. rural and urban areas) is feasible. A skill-based curriculum is more conducive to implementation as learning is not all about passing examinations but a holistic educational experience that imparts desired knowledge, values, attitudes and practical skills. It places the ownership of learning in the hands of students and helps them restrict the big gap of understanding.	increased retention problem-solving and critical thinking fair environment equal opportunity feasible in evaluating the education results conductive to implement	
3	In my opinion, both should be part of the curriculum. Skill-based skills enhance the practical aspect and exam-based tests to determine whether the concept is clear.	both should be part of the curriculum	
4	Skill-based or hands-on activity is a more engaging way to learn. It can lead to increased retention and offer practice in problem solving and critical thinking whereas exam based creates pressure that prevents the administration of all curriculum activities. As a result, teachers are busy in delivering the content and not getting enough time to execute all activities planned.	Skill-based is a more engaging way to learn exam based creates pressure curriculum activities	
5	A curriculum that focuses on skill-based development prepares our young learners to face the real world	skill-based	

	confidently and effectively. Having a continuous skill-based approach, rather than only an exam-based approach, automatically aligns every child's knowledge. A child's performance on an examination day is not an accurate way of evaluating the effectiveness of your curriculum.	prepare to face the real world confidently	
6	In my opinion hands on activities engages children in more effective way and it improves their communication, critical <u>thinking</u> and creativity. They also stay interested and focused in their learning. <u>Exam oriented curriculum is easier to implement but less effective and demands</u> for more resources.	Exam- oriented curriculum is easier to implement but less effective	
7	Working with young learners, I believe that children should be taught through hands on activities as when they explore and experiment they learn with <u>interest</u> . <u>But in the exam-oriented curriculum, we are not getting enough time to cater to individual needs</u> as we hurry to complete our syllabus before the examination date.	Not getting enough time to cater individual differences.	
8	<u>Skill-based curriculum is more conducive to implement provided means are available</u> as the activities planned <u>in itself will</u> tend to the needs of learners in understanding and application of the concept. In other words, learning by doing will retain in their minds more comprehensively.	Skill based curriculum is more conducive	
9	Skill-based, hands-on learning is certainly a more effective teaching technique as compared to exam-oriented curriculum. Hands-on learning is a form of education in which children learn by doing, thereby it engages students actively. <u>Exam-oriented curriculum usually leads to traditional way of methods that is lecturing.</u> Instead of listening to a lecture, students engage with the subject matter to solve a problem or create something. Thus, it leads to increased retention. <u>it hones students' higher order</u>	. Exam-oriented curriculum usually leads to traditional way of methods that is lecturing.	

	<p>thinking skills and students enjoy more while learning. On the other hand, <u>knowledge based</u> curriculum is a ore traditional approach to teaching and learning. Students are passive learners as they listen to lectures, with almost no technology integration. Since the focus is more on high academic achievement in exams and not on developing 21st century skills, students don't enjoy this form of learning and concept clarity is also not deep.</p>	<p>Skill-based hones students' higher-order thinking skills and students enjoy more while learning</p>	
10	<p>I believe skill-based is more conducive because <u>the exam-oriented curriculum is simply transferring basic information</u> that time, students will learn and soon forget the concepts.</p>	<p>for exam-oriented curriculum is simply transferring of basic information</p>	
11	<p>I think skill based curriculum are the <u>best</u> for learners. Skill based are more conducive because learners are interested and it's easy to obtain good results whereas <u>exam-oriented curriculum is superficial and does not support to develop to think critically</u>.</p>	<p>exam-oriented curriculum is superficial and does not support to develop to think critically.</p>	
12	<p>I think in a way both are important but skill based is preferred widely. Students learn and change their attitude based on what and how they have perceived it. Skill-based is useful to retain the information and exam based is meaningful to assess the <u>learners</u> level of understanding.</p>		
13	<p>I believe <u>that skill-based curriculums are good but we need training to implement them properly</u>. And <u>also</u> good quality resources are needed so that teacher will put their time and energy in effective implementation rather arranging for resources.</p>	<p>that skill-based curriculums are good but we need training to implement them properly.</p>	
14	<p>I prefer skill-based curriculum which school is trying to implement but with limited resources. <u>We need proper training and enough</u></p>	<p>We need proper training and enough resources for</p>	

	resources for proper implementation.	proper implementation.	
15	Skill based curriculum is more conducive but everyone <u>do</u> not understand the importance. Parents have learnt through traditional method so they feel the same is good for their children also. They do not want to pay extra money which school charges for resources for <u>skill based</u> learning.	Parents have learnt through traditional method so they feel the same is good for their children also.	

Q3. What is your perception of technology integration to enhance curriculum integration?

Responses	Participant	Code	Theme
<u>Good approach</u> for <u>skill-based</u> growth.	1	Good approach	Management Responsibility
Technology allows teachers to <u>customize learning</u> and create <u>varying levels of scaffolded support</u> rather than to deliver a one-size-fits-all approach to instruction merely.	2	Customize learning	
Technology has become the <u>vital part</u> of any <u>sector</u> . So, it's imperative that technology has to be part of curriculum. Management should make arrangements to <u>train their teaching staff</u> to use this blessing effectively.	3	vital part train their teaching staff	
As per my observation main reasons for taking an online class by the students were <u>"flexibility" and "self-control"</u> within the learning environment, Students need learning experiences to be relevant and meaningful. For this to occur, activities need to include the use of	4	flexibility" and "self-control	

technology to acquire, demonstrate, apply, and communicate information.			
Technology is the new era and enhancing and updating tech skills in children is necessary. However, teachers must be skilful in integrating technology in their plannings.	5	Necessary skill teachers must be skillful in integrating technology	
Use of technology in curriculum implementation can improve various skills in children. If technology is integrated in an effective way with the curriculum it can lead to high order thinking, analysis and problem solving which further deepens the learning of students.	6	improve various skills	
Its the 21st century & teachers need to integrate their concepts to enhance curriculum. Technology plays an important role in a Child's life and making use of this under adult supervision will benefit the child's learning process	7	benefit learning process	
Since the world has entered a digital age, Integration of technology has become eminent in the field of education. It provides scope for differentiation, allows learners to learn at their own pace and serves as a wonderful platform for assessment and review of their learning.	8	learn at their own pace	

Technology integration enhances the teaching learning process. It makes learning deep, engaging, more meaningful and fun for students. It also promotes collaboration among students and hones their digital literacy, a skill essential for students' careers. It is an indispensable part of teaching in the 21st century.	9	enhances the teaching learning	
In present time technology is must to enhance learning experiences. I would prefer to integrate technology in all lessons some or the other way. But my teachers are not so expert in technology handling therefore I think higher management should conduct professional development sessions wit IT department of our school.	10	conduct professional development sessions	
I think that's the best strategy in today's era.	11	best strategy	
I am a great proponent of technology integration. Technology help learners to visualize and understand concepts in a better way.	12	visualize and understand concepts in a better way.	
Unlike before, nowadays, learners do not want to use merely textbooks to gain knowledge. They are more attracted towards virtual learning therefore, our teachers should be skilful at integrating virtual	13	teachers should be skilful	

elements in their lesson plans.			
Technology has superseded the key role in many professions. Technology integration is inevitable if we want our learners to compete with the existing trend .	14	compete with the existing trend	
Technology has provided learners with a vast horizon of knowledge; therefore, technology integration is a must. However, our teachers must be trained enough to guide students to use technology meaningfully.	15	vast horizon of knowledge teachers must be trained enough to guide students	

Q4. What do you think about the teachers' contribution to curriculum development and why?

Responses	Participant	Code	Themes
Teachers are pillars for implementation, so their involvement in curriculum development is vital. But most of them have confined knowledge however, by providing professional development sessions, their efficacy can be improved.	1	confined knowledge professional development	Teacher Well-being
Teachers are central to any curriculum development effort. Better teachers support better learning because they are most knowledgeable about the practice of teaching and are responsible for introducing the curriculum in the classroom	2	Knowledgeable and accountable for teaching the curriculum in the classroom	
Educators are the mind behind any curriculum as they are the ones	3	Management must provide our teachers	

<p>who implement the curriculum. Our school has efficient teachers, but I think they need to be more groomed in all aspects of the curriculum.</p> <p>Management must provide our teachers with professional development courses to increase their efficacy.</p>		with professional development	
<p>Curriculum is content, but when contextualized, it comes alive for students. The role of teachers in the curriculum process is to help students develop an engaged relationship with the content. Active learning will increase the focus and retention of the curriculum, resulting in an exciting learning environment. Teachers build lessons that include simulations, experiments, case studies and activities to deliver curriculum.</p>	4	exciting learning environment	
<p>Teacher is the one who works closely with her students. She can make her final evaluation based on the learning outcome, accommodation needed and a reevaluation. A team meeting to discuss and compare the results with other teachers will help in enhancing or modifying the curriculum.</p>	5	A team meeting to discuss and compare the results with other teachers will help in enhancing or modifying the curriculum.	
<p>Teachers are the one who implement the content of the curriculum in classrooms and assesses student</p>	6	understand the needs of students	

learning. So their involvement in curriculum development is important to understand the needs of students at a particular level and align the content in curriculum as per the inputs of <u>teachers</u> . In order to get effective suggestions, I believe that <u>teachers must be trained</u> in this area.		teachers must be trained	
Teachers reflect on a day-to-day basis. Their reflections help them in planning and making recommendations. Thus, <u>involving teachers in the initial stage</u> will bring better suggestions for curriculum development.	7	involving teachers in the initial stage	
The teachers have remained and will continue to play a major role in curriculum development. Being at the ground level, they literally experience the scenarios posed by a certain <u>curriculum and therefore, have a better understanding of curriculum implementation</u> . This knowledge of teachers will help in curriculum development, <u>enhancement</u> and modification.	8	a better understanding of the curriculum	
Teachers must be actively engaged in curriculum development. With their knowledge, experiences and competencies, <u>teachers are central to any curriculum development effort</u> . <u>Teachers can contribute</u>	9	teachers are central to any curriculum development effort Teachers can contribute by	

by collaboratively and effectively working with curriculum development heads/teams to arrange and compose textbooks, digital resources, and other resources. Teacher involvement in the process of curriculum development is important to align content of curriculum with students needs in the classroom.		collaboratively and effectively working	
Teacher are the sole of implementation. Without their support curriculum reform cannot bring into practice. <u>Therefore their contribution is paramount</u>	10	contribution is paramount	
Teachers are the key players. Without them what ever you <u>plan implementation</u> will never be in good shape. <u>However I think they must be provided with proper training before their involvement.</u>	11	Training should be provided	
Teachers are the pillar of curriculum development process as they are the once who bring thoughts into existence. <u>Their contribution at the early stage is the key of successful implementation.</u>	12	Their contribution at the early stage is the key of successful implementation.	
<u>Teachers</u> contribution is significant for the successful implementation. They should take <u>ownership of the reform</u> that leads to responsibility and <u>self-satisfaction</u> .	13	ownership of the reform self-satisfaction	

Teachers contribution is paramount in curriculum implementation. Their willingness to translate reformed curriculum is essential. It promotes the sense of responsibility, risks and sacrifice for self-made change.	14	promotes responsibility, risks and sacrifice	
Teachers are an integral part of the implementation. Their contribution to curriculum development makes them authoritative for the change. As a result they are motivated to put their best to obtain better outcomes.	15	put their best	

Q5. What do you think about teachers collaboration for productive results in curriculum implementation?

Responses	Participant	Code	Theme
Collaborative mind always have successful story	1		Teacher Well-being
Teachers know their students better than others involved in the curriculum process. While the state often dictates the skills covered by the curriculum, a teacher can provide insight into the types of materials, activities and specific skills that need to be included. so Teacher collaboration has been a common element of middle grades initiatives for years, typically one or more of these three	2	common planning time, professional learning communities, and critical friends groups.	

communication and understanding between them. Only then the collaboration will be effective in planning for curriculum implementations.			
In the process of curriculum implementation, when teachers come together to share information, resources, ideas, and expertise, learning becomes more accessible and effective for students. When they communicate and share ideas, they also share an enlarged repertoire of instructional strategies that encourage creative instruction. This will in turn help in better student achievement.	8	share information, resources, ideas, and expertise, learning becomes more accessible and effective for students	
Collaboration among teachers for positive outcomes in curriculum implementation is a must. When teachers work together, they form important professional and personal relationships. Teachers often draw support from each another and can delegate tasks that allow each teacher to feel effective. Teachers can share what worked well for them and this leads to exchange of best practices. Collaboration between teachers contributes to school improvement and student success.	9	Collaboration among teachers for positive outcomes in curriculum implementation exchange of best practices.	
That the best strategy to employ. They can learn from each others	10	learn from each others experiences and perform better	

organizational models: common planning time, professional learning communities, and critical friends groups.			
Since every teacher have their own individual <u>experience</u> . So it's always better to collaborate and design the process of curriculum implementation.	3	individual experience collaborate and design the process of curriculum	
When teachers work in teams, it allows them to <u>build meaningful relationships</u> with their colleagues and it gives them the sense of being a part of something bigger. This sense of belonging can <u>positively affect school culture</u> , which of course can directly affect student learning. Increased time and efficiency.	4	build meaningful relationships positively affect school culture	
Teachers <u>have to</u> collaborate with each other to align their evaluation and come to a conclusion on the effectiveness of their curriculum, furthermore make the required modifications and enhance their curriculum and look into effective implementation.	5		
<u>Teachers</u> collaboration <u>facilitate them to share their experiences, ideas and expertise</u> which can support in effective implementation of curriculum.	6	facilitate them to share their experiences, <u>ideas</u> and expertise	
Working in partnership is a healthy process. But more importantly <u>their</u> should be <u>open</u>	7	open communication and understanding between them.	

experiences and perform better			
Teachers collaboration is must to get better results. When teachers are sharing and learning they are doing better.	11	collaboration is must to get better results	
Collaboration provides teachers with better thinking, self-motivation, ownership and sense of shared responsibility. Teachers working in a group are likely to be happier and successful in their goals.	12	provides teachers with better thinking, self-motivation, ownership and sense of shared responsibility.	
Collaboration facilitates teachers to share their accomplishments and challenges that can be useful for other team members.	13	facilitate teachers to share their accomplishments and challenges	
Collaboration among team members boost confidence and improve the work environment resulting in effective change implementation.	14	boost confidence and improve the work environment	
Collaboration helps teachers to share their ideas and experiments with peer teachers and motivate them to perform better. This practice has positive effect on change implement.	15	share their ideas and experiments with peer teachers and motivate them to perform better	

Q6. What strategy would you implement to improve learners' participation in curriculum adoption?

Responses	Participant	Code	Theme
Building good student teacher relationship, planning interesting lesson, Students centered learning, hands on activities, encouragement, rewards for good work,	1	Play way method	Curriculum and Student well-being

questioning, group activities, discussions, collaboration etc will improve <u>learners</u> participation.			
<u>Learners</u> participation in planning activities, age appropriate activities and learners freedom to choose the activities.	2.	involvement of learners	
Assess students' prior knowledge and customize lesson plans. Provide ample opportunities for <u>student collaboration and independent work</u> . Give student a choice in how they learn the concept taught. (Differentiation through resources)	3	student collaboration and independent work.	
<u>Incorporate student voice and choice</u> . Differentiation Use active learning strategies such as brainstorming, collaboration, journaling etc. Student-led teaching Connecting learning to the real world. Create a constructivist learning environment	4	Incorporate student voice and choice	
Use of technology, celebration of success, collaboration, open discussion forum, <u>students</u> contribution in curriculum planning and designing upto certain level and peer learning	5		
<u>Hands on activities</u> , play way learning methods, field trips, extended classroom approach.	6	Hands on activities	
More <u>skill-based</u> activities Independent	7		

experiences and perform better			
Teachers collaboration is must to get better results. When teachers are sharing and learning they are doing better.	11	collaboration is must to get better results	
Collaboration provides teachers with better thinking, self-motivation, ownership and sense of shared responsibility. Teachers working in a group are likely to be happier and successful in their goals.	12	provides teachers with better thinking, self-motivation, ownership and sense of shared responsibility.	
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<u>Learners</u> participation in planning activities, age appropriate activities and learners freedom to choose the activities.	2.	involvement of learners	
Assess students' prior knowledge and customize lesson plans. Provide ample opportunities for student collaboration and independent work . Give student a choice in how they learn the concept taught. (Differentiation through resources)	3	student collaboration and independent work.	
Incorporate student voice and choice . Differentiation Use active learning strategies such as brainstorming, collaboration, journaling etc. Student-led teaching Connecting learning to the real world. Create a constructivist learning environment	4	Incorporate student voice and choice	
Use of technology, celebration of success, collaboration, open discussion forum, <u>students</u> contribution in curriculum planning and designing upto certain level and peer learning	5		
Hands on activities , play way learning methods, field trips, extended classroom approach.	6	Hands on activities	
More <u>skill-based</u> activities Independent	7		

a form of communication.			
Wellbeing of the students matters the most. Work towards it, have a great student teacher bonding . Student readiness matters only then curriculum can be implemented.	5	student teacher bonding	
Unconducive teaching and learning environment <u>leads</u> to low morale and absenteeism negatively affect students learning and curriculum implementation.	6	Unconducive teaching and learning	
When planning the curriculum all factors are considered. Hence the behavior will certainly impact but shouldn't affect at large. It is temporary and with proper guidance can be sorted out.	7	proper guidance	
Curriculum implementation revolves around learners. When the students lack interest or have a low morale, there is a detrimental effect on their overall learning. Frequent absenteeism and lack of interest will lead to a disruption in their learning, leading to a poor performance and understanding of concepts. This very often might impede the curriculum implementation as teachers will have to ensure all her learners are at par and will have to keep modifying her	8	students lack interest modifying lessons,	

lessons, thereby leading to frequent changes in her transaction.			
Learners are at the center of curriculum implementation. Their behaviour impacts the implementation of the curriculum. Thus, student wellbeing should be at the heart of teaching and learning. Efforts should be made to ensure students are intrinsically motivated to learn by incorporating student voice and choice in learning. Additionally, teachers must hold high expectations of all learners and challenge them as per their ability. Teaching should be differentiated to ensure all students learn. A host of differentiation techniques such as pace, content, resources, scaffolding etc., should be employed by the teachers. Positive reinforcement must be used to further boost student motivation and morale. Focus should be in praising effort and not intelligence.	9	<p>student wellbeing should be at the heart of teaching and learning.</p> <p>intrinsically motivated</p> <p>student voice</p>	
It has a great impact on implementation. These results show that where the concept is delivered properly or not. Their absenteeism will affect this data.	10		
<u>Yes</u> it does affects. Along with the concepts comprehension	11	students well being is paramount	

students well being is paramount. It leads to self satisfaction and better outcomes.			
It is necessary to provide children with conducive environment to learn. In its absence, children feel disregarded and insignificant to their cohort. This feeling impacts their moral and social values. ultimately it reflects a negative impact on curriculum implementation.	12	conducive environment	
Student absence has negative impact on curriculum. It will affect the progression data of the whole class.	13	progression data of the whole class.	
Since students are the centre of teaching and learning, their absence will jeopardize the whole system.	14	jeopardize the whole system.	
Learners absenteeism and low morale will prevent students from making good relations with teachers and friends. Eventually, it will affect curriculum implementation negatively.	15	negatively.	

Q8. How do you think high-level management support may benefit effective curriculum implementation?

Responses	Participants	Code	Theme
By recruiting qualified skilled teachers and further enhance their efficacy by providing profession development sessions management can	1	qualified skilled teacher providing profession development	Management Responsibilities

support curriculum implementation.			
High-level management support is an underlying a vital factor to govern an effective and applicable curriculum which can deliver a holistic objective of learning. It <u>work</u> as a waterfall if you have a depth of support including high availability of resources and directions . Learning stream will be a consistent and commendable flow. That will bring a consistency, cohesiveness and do check all the boxes in applying due diligence of implementing high achieving learning objectives.	2	availability of resources and directions	
High level management plays an important role. They can provide feedback about the class. Resources required can be issued by their approval. Positive environment in the school.	3	Positive environment	
High level of management support may benefit effective curriculum implementation by choosing the right materials by having deep knowledge of academic standards , the instructional shifts, and research about instruction, as well as a clear understanding of how different sets of materials will or won't meet the unique needs of students in a particular district.	4	choosing the right materials <u>and by</u> having deep knowledge of academic standards	

They will ensure good infrastructure and provide quality resources.	5	good infrastructure and provide quality resources.	
Providing CPDs for teachers, providing resources and conducive environment	6	Providing CPDs for teachers	
For an organization to succeed in planning the management support is essential. The better the support in providing infrastructure, resources, professional trainings etc the outcome would be effective and beneficial to the organization, <u>teachers</u> and students.	7	providing infrastructure professional trainings	
The school management plays a crucial role in effective curriculum implementation. It ensures provision of a coherent, flexible, <u>broad</u> and balanced curriculum that is in line with the aims of education. <u>Reviews</u> school plans and budgets to see if they are in line with the overall education goals and school policies, and makes appropriate adjustment when necessary. Above all will promote education for the students of the school and leading the school to strive for excellence and continuous improvement.	8	balanced curriculum	
CPD sessions and professional development of the	9	support teachers at every step	

existing and new teachers can be highly effective to ensure optimal curriculum delivery. Additionally, they can procure equipment and materials needed for effective learning. They can plan for the improvement of school facilities and support teachers at every step.			
The participation of management is crucial to the curriculum implementation because they are the ones who make policies, arrange for finance, resource etc.	10	make policies, arrange for finance, resource	
Management has a crucial role to play in curriculum implementation. Management is responsible for policy making, arranging finance, providing relevant good quality resourced, monitoring, evaluating learners achievements and distribution of teachers work. Without all successful implementation is not possible.	11	distribution of teachers work	
School relies on management to provide them with proper instruction about change. By having open communication with the implementors, management can reduce the uncertainty aids curriculum implementation. Therefore without management support and guidance successful	12	open communication	

implementation is not possible.			
High- level management plays a crucial role. Leaders can create conducive environment for teachers and students to adopt reformed curriculum.	13	conducive environment	
School leaders play a key role initiating, communicating and convincing teachers to implement reformed curriculum by providing them with conducive environment.	14	communicating and convincing teachers to implement reformed curriculum	
The high-level management team is responsible for maintaining transparency in their system by maintaining balance in work distribution and clear instruction that facilitates curriculum implementation.	15	maintaining transparency in their system balance in work distribution and clear instruction	

Q9. Do you think teachers turnover affect curriculum implementation? Why or why not?

Responses	Participant	Code	Theme
Yes, it leaves a negative impact on students and parents, resulting in ineffective implementation.	1	it leaves a negative impact on students and parents,	Teacher Well-being
The failure to retain teachers has a generally negative impact on students and schools. Problems with teacher turnover contribute significantly to teacher shortages and result in the inequitable distribution	2	negative impact on students and schools teacher shortages and result in the inequitable distribution of adequate and qualified teachers	

of adequate and qualified teachers across schools. thus effecting in the curriculum implementation.			
Yes, it does not shows positive affect on curriculum <u>implementation.</u> If the teachers are leaving it not only costs financially but also effect the student educational aspect.	3	costs financially but also effect the student educational aspect.	
Research shows again and again that teachers are the single most important factor in student achievement. Teachers need support through mentor relationships, professional development opportunities, and coaching support. These resources allow educators to continue with the school for a long time and develop the skills required to teach students from diverse backgrounds.	4	<u>mentor relationships,</u> professional development opportunities, and coaching support continue with the school for a long time	
<u>Yes</u> it does. Orienting and training of teachers takes time and effort and if there is a high teacher turnover it proves that curriculum is not being effectively implemented as teachers are still under training and observation, whereas if your teacher turnover is <u>less</u> it shows the wellbeing of a teacher in a school and consistent development of curriculum will take place.	5	wellbeing of a teacher in a school	

Yes, high level of <u>teachers</u> turnover affect curriculum implementation. New teachers struggle to adapt to and implement curriculum	6	teachers struggle to adapt to and implement the curriculum.	
Yes, the school invests in training teachers as an ongoing process, their turnover will impact financially and in curriculum implementation. To train new staff is time taking and sometimes may not be beneficial.	7	invests in training teachers	
Teacher turnover has a negative impact on curriculum implementation. High turnover undermines students' achievements. This is because the curriculum implementation suffers a set back due to the continuous change in teachers and children find in difficult to adjust to the teaching style of different teachers.	8	negative impact on curriculum implementation children find in difficult to adjust to the teaching style	
Yes, it <u>definitely affects</u> curriculum implementation. Each organization has its own curated curriculum and resources. If a new teacher joins, she <u>has</u> to be given rigorous training in best practices in teaching to meet the expectations of the organization. Thus, teacher turn over affects curriculum implementation.	9	given rigorous training in best practices in teaching to meet the expectations	
Yes, it does. It also shows that teachers are unhappy. With unhappy staff management can not expect good results.	10	teachers are unhappy.	

Yes, it does. Young learners are usually connected to their teachers and then learn better. Teacher replacement might affect their ability to learn.	11	Affect learners' ability to learn	
Teacher turnover does affect the curriculum implementation but particularly it depends on the age group of the learners. <u>Usually</u> young learners are affected the most.	12		
Teacher turnover effects the implementation negatively. It a responsibility of leaders and management to keep teachers motivated by appraisals and provide them with CPDs to cater their wellbeing.	13	keep teachers motivated by appraisals	
Yes, it has a profound impact on curriculum implementation. <u>Implementation cannot be successful unless learners and teachers both are happy.</u>	14	Implementation <u>cannot be</u> successful unless learners and teachers both are happy.	
<u>Teachers high turnover hampers the learning process of students</u> and when students are not happy and satisfied, implementation can never be successful.	15	high turnover hampers the learning process of students	

Q10. As a head of the department how do you monitor the curricular fidelity of teachers?

Responses	Participant	Code	Theme
<u>Teachers</u> fidelity can be traced by <u>monitoring new teaching approaches and</u>	1	monitoring new teaching approaches and student assessment framework	Management Responsibilities

student assessment framework.			
<p>People are the most important aid along with <u>an</u> process and policy. Open effective communication platform and <u>360 degree</u> interaction is a tool to ensure it.</p> <p>Delivery of effective Curriculum and accountability of teachers is in line with integrity with laid process and applications tools. Keeping transparency with all custodians will ensure each one committed and uphold ownership.</p>	2	Open effective communication platform and <u>360 degree</u> interaction is a tool to ensure it	
<p><u>Firstly</u> by the feedback shared by teachers. Secondly by <u>peer observation</u> and high level observation Then the <u>outcome or score obtained by skill based test</u> taken for the <u>children</u>.</p>	3	<p>peer observation</p> <p>outcome or score obtained by <u>skill based</u> test</p>	
<p>Attend subject area meetings. Provide informal written feedback to teachers about program. Visit classrooms daily to view programs. Review adopted curriculum guides. Use budget to ensure necessary materials are available. Review copies of interdisciplinary units and "spot check" lesson plans. Attend in-services on programs.</p>	4	Review copies of interdisciplinary units and "spot check" lesson plans	
<p>Teacher observations, buddy programs, mock drills, internal inspections, <u>comparing</u></p>	5	comparing attainment and progress	

attainment and progress			
Frequent observations, check list, peer feedback, are helpful to monitor curricular fidelity of teachers.	6		
Observing, providing constructive feedback, ensuring open communication, designing a <u>well-planned</u> curriculum & conducting trainings.	7		
By routinely observing and evaluating a teacher's lesson transaction to identify areas of need and weakness and to create an individual plan for that teacher to improve in those areas. By providing constructive feedback to the teacher and review her lessons periodically to see progress. Provide buddy support for new and struggling teachers. Arrange for meaningful professional development workshops . Supply adequate resources for the teachers to effectively transact. Be approachable and establish ongoing and open communication . Allow teachers to put forward their views and opinion.	8	<p>observing and evaluating a teacher's lesson</p> <p>meaningful professional development workshops</p> <p>ongoing and open communication</p>	
Regular department meetings, lesson observations, peer observations , pre and post conference meetings, fostering collaboration among team members to	9	<p>lesson observations, peer observations,</p>	

facilitate exchange of best practices. Ensuring wellbeing of the team.			
I would like to hold meeting as and when needed to understand their perspective and observe them constantly	10	Meetings and constant observation	
Before monitoring <u>fidelity</u> I would prefer to listen to their problems and try to solve them. In this way they get encouraged and motivated to implement curriculum honestly. Then with help of observations and one to one discussion on their challenges and achievements their fidelity can be traced.	11	observations and one to one discussion on their challenges and achievements	
Curricular fidelity of teacher is directly linked to the success ratio of learners. <u>Therefore</u> teachers fidelity can be checked by keeping track of students achievements and gap in learning.	12	keeping track of <u>students</u> achievements and gap in learning	
Teacher fidelity can be anticipated by her educational background and study level. Usually, <u>less</u> professional teachers are lacking in planning and implementation. Management should organize professional development courses for such teachers.	13	educational background and study level.	
Teacher's insufficient knowledge and non-supportive attitude effects curriculum change. Continuous observation, weekly	14	insufficient knowledge and non-supportive attitude	

meetings and professional development support can help to face such challenges.			
Leaders should create transparent and open communication so check the fidelity of teachers.	15	transparent and open communication	

Appendix 7



Research ethics form self-assessment

Application for approval of research activity involving human subjects, personal data, or confidential material

This application form is to be used by researchers seeking approval from the Research Ethics Committee.

Research that involves human subjects, personal data, or confidential material, and is associated with The British University in Dubai, cannot begin until ethical approval has been obtained.

Section I is a general research identification table.

Section II is for the details of the ethical matters your research might involve and the necessary steps you are planning to take to address them.

Section III is an ethics checklist that will help you identify your research risk level. If you answer 'Yes' to any one of the high risk statements, then your research is High Risk. If you answer 'Yes' to any one of the medium risk statements, and 'No' to all high risk statements, then your research is Medium Risk. If you answer 'No' to all high risk and medium risk statements, then your research is Low Risk.

If you have documents related to the ethical considerations of the research such as, for example, a consent letter, evidence of external approval, questionnaire samples or interview questions, you can enclose them with this form before submission.

I. Research identification

Name	Aaisha Haque
Faculty/Programme	Masters in Education
Contact number	0501795979
Email	20193873@student.buid.ac.ae
Research type	<input type="checkbox"/> Research project <input checked="" type="checkbox"/> <input type="checkbox"/> Doctoral/Masters research <input type="checkbox"/> Module assignment
Research title	Effective Implementation of Curriculum for Optimum Teaching and Learning Experience: a study among departmental heads and teachers.
Date	
Submitted to (name)	<input type="checkbox"/> Faculty nominated member (research projects): <input type="checkbox"/> Director of Studies (doctoral research): <input checked="" type="checkbox"/> Dissertation supervisor (Masters research): Dr David Solomon <input type="checkbox"/> Module coordinator (module assignment):

II. Research ethics details

Background and rationale for study (this should be sufficient to justify the proposed research). Aims and objectives of the research (or the research question/s) and potential benefits of proposed research: 500 words max)

With an increasing emphasis on youth development and employability in the middle east, the United Arab Emirates has made substantial efforts to re-imagine and reform its education sector. Education authorities have implemented many reforms to shift education from rote memorization towards skilled based learning that prepares students to thrive in the 21st century. In this vein, curriculum plays a significant role. The study of the curriculum is dynamic and crucial for the health of the education system and society. Over the past century, the challenges facing the education system and teachers continue to escalate. Society has required the school to educate learners for a complex set of social and knowledge-based economic realities where the demand for high-level skills will continue to intensify substantially. It is undeniable that providing a conducive curriculum will yield the generation of pioneering and skilled citizens. To that end, the curriculum must be conceptualized holistically where significance is not given only what is to be taught but also how it should be taught and assessed. In the absence of a comprehensive approach, the curriculum will be understood solely as a written document or textbook content.

The UAE education sector is experiencing a substantial and constant revolution in curricula. Hence, the school community entails skills to implement the curriculum with fidelity. Additionally, curriculum implementation needs to be evaluated so that best practices and challenges can be identified. Moreover, determining what kind of problem teachers and students face so that school management can support them in attaining better outcomes.

Therefore, the study aims to address the problems and derive strategies for optimum teaching and learning experience.

The research will examine:

Main Question:

- 1) What are the barriers to curriculum implementation that hinder optimal teaching and learning?

Sub questions:

- 1) What are curriculum implementation problems associated with teachers?
- 2) What are curriculum implementation problems related to students?
- 3) What are curriculum implementation problems related to school and management?

The research will highlight the barriers and postulate strategies that facilitate educational bodies to overcome the challenges of curriculum execution. The study will also provide guidelines for future researchers to use the findings as a solid base to conduct potential studies in the ever-evolving education system.

**Main ethical consideration(s) of the research
(the ethical matters your research may involve)****Presentation of Intended Research to all Participants**

All the survey participants will be provided with an informed consent form to take part in the study before undertaking the survey. The participant will be informed that they will participate anonymously and are allowed to withdraw their participation at any time during the study. The form will also indicate the reason for the research and the potential benefits of the participants' responses, which can be used to improve the system later. The form will be sent by electronic mail, which they all agree to before answering the survey questions.

The consent form will be sent before the semi-structured interview discussion, and the interview time will be fixed upon approval.

Participant Withdrawal

In the case of participant withdrawal, the data that has been collected and analyzed already will be retained. In addition, the focus group interview will be sent to randomly selected teachers and departmental heads. Therefore, if they chose not to participate in the study further, any attempts for interaction, including a request for additional information from the investigator, would be discontinued.

The researcher will use pseudonyms to maintain the participant's anonymity and data confidentiality during information analysis and discussion.

Methods of data collection

(outline in detail how data will be collected and attach a copy of any questionnaires, interview schedules or observation guidelines to be used: 400 words max)

Research Instrument:

This study will gather quantitative data through an online questionnaire to understand teachers' perspectives on effective curriculum implementation. The survey questionnaire will then be sent to a cohort of teachers to identify numeric descriptions of the population's trends in thoughts, opinions, and actions.

To understand the perception of the departmental head on curriculum implementation, the researcher will hold a semi-structured interview to collect quantitative data. The questionnaire for the interview will concentrate on the problems of the curriculum implementation and solution from experienced heads perspectives.

The qualitative and quantitative data generated through online surveys and interviews will allow better comparability with other studies when the result will be analyzed for common themes and diversity of opinion.

Recruitment of participants

(outline the number and type of participants involved; give details of how potential participants will be identified and invited to take part in the study; and how informed consent will be obtained: 300 words max)

The researcher aims to conduct a concurrent study by collecting quantitative responses from 150 teachers and qualitative responses from 15 departmental heads. The 4 Likert scale questionnaire is designed for teachers, and semi-structured interviews questionnaire for departmental heads to gain a more in-depth understanding of the approach and thinking of the school's upper management.

All participants will be provided with an informed consent form to participate in the study before undertaking the survey. The informed consent will be distributed as an online form that participants will agree to before answering the survey. The consent form will describe the purpose of this study and the potential benefits of the responses submitted by the participants, as their responses will be used to improve implementation strategy and innovations.

For qualitative data collection, the consent form will be sent to the leaders privately by email, and the interview time will be arranged with the selected participants once all the consent forms have been received.

For the semi-structured interview with the specific instructor, the consent form will be sent prior to the interview, and upon approval, the interview time will be set.

Please attach a copy of your information sheet(s), draft materials such as interview questions etc. and consent form as well as indication of planned time of issue/use. If you are not using a consent form, please explain why.

☒ Attached

Potential adverse effects on participants and steps to deal with them

(outline if you anticipate any potential harm or negative consequences including psychological stress, anxiety or upset which may be induced by the study, and the steps to be taken to address them)

Participants perhaps feel uncomfortable while sharing their responses; therefore, it will be mentioned in the consent form that participants will have the freedom to withdraw at any stage from the survey, and those are contributing their responses will be kept confidential.

Also, participants of the interview will not be forced to share any classified information that may harm their school integrity.

Steps to be taken to ensure confidentiality of data

(outline steps to ensure confidentiality, privacy and anonymity of data during collection, storage and publication. Specifically identify any confidential or personal information, and/or any other party's protected intellectual property which you need to use and safeguard)

Privacy and Confidentiality

The Google survey form link will be created and shared by electronic mail with the participants. There will be no question in the survey questionnaire indicating participants' personal details, affecting their anonymity. With the Google form being shared as a link, participants will be encouraged by the researcher to fill the form within two weeks.

The interview will be held on ZOOM call or face to face depending on the comfortability of the participants. The researcher will use pseudonyms to maintain the participant's anonymity and data confidentiality during information analysis and discussion.

Data Storage:

The quantitative data collected from the participants (teachers) by Google survey form will be preserved exclusively by the researcher for analysis, and the information gathered from the interviews will be made anonymous to inhibit participation identification and used for depth learning. Although information saving on a cloud-based system is convenient, there is a risk of data security. Therefore, the collected data will be stored in password-protected files in a flash drive accessible only to the researcher.

Also, pseudonyms will be used to ensure confidentiality, privacy and anonymity of data collection whenever qualitative data and responses will be discussed and analyzed for themes.

Steps to be taken to ensure financial and commercial propriety

(specifically identify any external funding or significant third-party financial involvement with the research)

Not Applicable

Other plans to address a particular ethical matter not mentioned above

None

Research ethics checklist

If you answer 'Yes' to any one of the high risk statements, then your research is High Risk. If you answer 'Yes' to any one of the medium risk statements, and 'No' to all high risk statements, then your research is Medium Risk. If you answer 'No' to all high risk and medium risk statements, then your research is Low Risk.

High Risk

Will consent be coerced out of participants by those who would likely benefit from the research?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ✓
Will it be necessary for participants to take part in the study without their knowledge and consent at the time?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ✓
Will the study involve some form of invasion of privacy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ✓
Is discomfort or harmful impact to participants likely to result from the study?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ✓
Is there a possibility that the safety of the researcher may be in question?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ✓
Will the research require the researcher to be deceptive or dishonest with the participants?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ✓

Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Will the research have negative intrusive physical or psychological effects on the participants?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Will the names of the participants or the institution appear in the research?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the research involve the condition of destroying recorded data after it is used?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Medium Risk	
Will the research involve governmental institutions or participants such as, for example, the military or the judiciary?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Will the study involve discussion of sensitive or potentially sensitive topics and issues?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the research involve potentially vulnerable participants (for example children, prisoners, or people with disabilities)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the research involve participants that are unable to give consent?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Will the research involve administrative or secure data that requires permission from the appropriate authorities before use?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Will research involve the sharing of data or confidential information beyond the initial consent given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Risk level identified	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
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The researcher undertakes not to deviate from the original consent granted by the University's Research Ethics Committee. The researcher bears full and sole responsibility for any deviation from this consent and all consequences arising from such deviation. The researcher waives all right of appeal in the event of any penalties applied by the University arising from such deviation.

Declaration by the Researcher:

Having read the University's Research Policy I declare that the information contained herein is to the best of my knowledge and belief accurate.

I am satisfied that I have attempted to identify all risks that may arise in conducting this research and acknowledge my obligations as researcher and the rights of participants. I am satisfied that all researchers (including myself) working on the project have the appropriate qualifications, experience and facilities to conduct the research set out in the attached document and that I, as the lead researcher, take full responsibility for the ethical conduct of the research in accordance with subject-specific and University Ethical Guidelines (Policies and Procedures Manual), as well as any other condition laid down by the Research Ethics Committee. I am fully aware of the timelines and content for participants' information and consent.

Name: Aaisha Haque

Signature: _____



Date: 1/12/21

FOR OFFICE USE ONLY
LOW RISK RESEARCH

Staff	
Chair of Ethics Committee	
Name:	
<input type="checkbox"/> Approved <input type="checkbox"/> Not approved	
Signature:	Date:

Students	
Dean of Faculty	
Name:	
<input type="checkbox"/> Approved <input type="checkbox"/> Not approved	
Signature:	Date:

Authorization for conducting research (only if approval is obtained):

The Committee has confirmed that this project fits within the University's Policies for Research and I authorize the low risk research proposal on behalf of BUID's Research Ethics Committee.

Name: _____

Signature: _____ Date: _____

(Chair of the Research Ethics Committee)

FOR OFFICE USE ONLY
MEDIUM RISK RESEARCH

Staff and Students	
<p>Endorsement by the Faculty's Research Ethics Committee member after electronic referral to all Research Ethics Committee members</p> <p>Name: _____</p>	
<p><input type="checkbox"/> Approved <input type="checkbox"/> Not approved</p>	
Signature: _____	Date: _____

Authorization for conducting research (only if approval is obtained):

The Committee has confirmed that this project fits within the University's Policies for Research and I authorize the medium risk proposal on behalf of BUID's Research Ethics Committee.

Name: _____

Signature: _____ Date: _____

(Chair of the Research Ethics Committee)

**FOR OFFICE USE ONLY
HIGH RISK RESEARCH**

Staff and Students	
<p>Endorsement by the Faculty's Research Ethics Committee member after meeting of Research Ethics Committee members</p> <p>Name: _____</p>	
<p><input type="checkbox"/> Approved <input type="checkbox"/> Not approved</p>	
Signature: _____	Date: _____

Authorization for conducting research (only if approval is obtained):

The Committee has confirmed that this project fits within the University's Policies for Research and I authorize the high risk proposal on behalf of BUID's Research Ethics Committee.

Name: _____

Signature: _____ Date: _____

(Chair of the Research Ethics Committee)

