# CHAPTER 2 CONCEPTUAL AND THEORETICAL FRAMEWORK OF QUALITY EDUCATION

Chapter 1 presented the quality education question in satellite primary schools and its context. This chapter reviews quality education literature. It commences by conceptualising quality education. However, there is no coherence in the way quality education is conceptualised because it is a multi-faceted and contested concept (Tikly, 2011; Tawil *et al.,* 2012). The purpose of this chapter is not to propose a standard definition or model of quality education, but to review and clarify an array of existing quality education definitions. Clarifying what quality education entails provides insights into quality education's context, inputs, transformation process, and outputs dimensions. The chapter also reviews the literature on models of quality education and school effectiveness. Based on the nature of the literature and research problem, the book adopted the OST as its theoretical lens. The chapter ends by discussing the rationale for quality education.

Quality education is a multi-dimensional, relative, elusive, and dynamic concept that is difficult to define universally (Tikly, 2011; Tawil *et al.,* 2012; Sanyal, 2013). There is no standard definition of quality education in quality assurance literature. Even if quality equality education it is elusive concept, there is often agreement globally that it is a central goal of education (UNESCO, 2004; UNESCO, 2015; MoPSE, 2015). An understanding of the concept of quality education is indispensable for the effective analysis of the nature and quality of pedagogical and management processes in satellite primary schools.

Several scholars have attempted to define the concept of quality education. The United Nations Children's Emergency Fund (UNICEF) (2012) defines quality education from a human rights-based perspective as education that works for every child and enables all

learners to achieve their full potential. However, this definition does not specify the dimensions of quality education, making it less useful for assessing the nature and quality of pedagogical and management processes in satellite primary schools.

Cheng (2003) defines quality education as the characteristics of the elements within the context, inputs, transformation process, and outputs of the education system that deliver services satisfying the expectations of both internal and external strategic stakeholders. This definition identifies four dimensions of quality education: context, inputs, transformation process, and outputs. Cheng's definition also links quality education to the concept of fitness for purpose, which involves meeting the expectations of strategic stakeholders such as policymakers, parents, learners, and teachers. This perspective aligns with Nsubuga's (2011) condition that local stakeholders should have a voice and participate in defining quality education. A major limitation of this definition is that the expectations of strategic stakeholders are often relative, making them difficult to meet.

To Sayed and Ahmed (2011), quality education encompasses the interaction between what learners bring to school which is the learner characteristics; what happens in the learning space such as school or classroom setting also called enabling inputs; what happens to individuals because of education or outcomes; and the context within which the activity takes place. It is a broader definition that captures most of the dimensions of quality education. Tikly and Barret (2011) argue that the definition is limited because it does not emphasise the non-quantifiable indicators of quality education such as inclusivity, equity, relevance, attitudes, and skills. Definitions that ignore the non-quantifiable aspects of quality education are narrow in scope (Tilky, 2010; Tikly & Barret, 2011). They do not provide a comprehensive conceptual framework for analysing the quality of education in satellite schools.

There is growing support for the conceptualisations of quality education that incorporate the qualitative goals of education (Tikly & Barret, 2011; UNESCO, 2010). In line with this view, Tikly (2010) says good quality education enables learners to realise the capabilities they require to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies, and enhance well-being. The learning outcomes at the end of the basic education cycle include threshold levels of literacy and numeracy skills and awareness and prevention of disease. Good quality education must also be inclusive, relevant, and democratic (Tikly, 2010; Tikly & Barret, 2011). This definition reflects both the quantitative and qualitative dimensions of quality education. Therefore, it is comprehensive. Definitions that attend to both the quantitative and qualitative dimensions of quality education enable us to have a holistic understanding of the prospects and complexities of quality education in satellite primary schools.

The notion that an education system is of good quality if it meets the socio-economic needs of society in the 21st century is rising in the quality education discourse. Expressing this view, Ng (2015) says quality education emphasises holistic development and equips learners with knowledge and skills for the future. In other words, quality education entails the relevance of content to the present and future needs of society. An education system is of good quality if it is responsive to society's current and future socio-economic needs.

A close analysis of the definitions reviewed in the preceding paragraphs reveals that quality education is indeed a multi-faceted concept that is conceptualised differently by different scholars. Regardless of the lack of consensus on a standard and universal definition of quality education, the UNESCO EFA Global Monitoring Report (GMR) 2005 identifies two basic principles that underpin all the conceptualisations of quality education. The first principle emphasises

the cognitive development of learners with high scores in national examinations as the primary indicator of high quality of education (UNESCO, 2004). Quality education scholars have criticised the efficacy of test scores as the sole indicator of quality education. The focus on examination scores is detrimental to the quality of the pedagogical process as teachers tend to resort to rote pedagogy or transmissive approaches to prepare learners for examinations (Sifuna & Sawamura, 2010). Rote pedagogy is a barrier to quality education because learners may fail to apply memorised facts to solve real-life problems in their communities and society.

The second principle relates to education's role in developing learners' values and attitudes, nurturing their creative skills and emotional development, and promoting inclusivity, equity, democracy, human rights, peace, and security (UNESCO, 2004; Tikly & Barret, 2010). These qualitative indicators are not only difficult to measure, but also open to different interpretations in different contexts (UNESCO, 2004; UNESCO, 2010; Tikly, 2011). By implication, we can only develop a comprehensive understanding of quality education if we conceptualise it regarding both its quantifiable and non-quantifiable dimensions.

The relevance of education to the socio-economic developmental needs of society in the new millennium characterised by globalisation and Information and Communication Technology (ICT) is becoming central to the understanding of quality education in virtually all contemporary societies (Ng, 2015). In this regard, the third principle of quality education is at this moment proposed. An education system is of good quality if it adequately equips learners with the requisite knowledge, skills, and values to become productive and acceptable members of their society in the new millennium. Therefore, in the context of this book, quality education is conceptualised as a relevant and holistic education that equips learners with both cognitive and non-cognitive skills to function effectively and productively in their society.

To understand the complex nature of quality education and develop strategies for evaluating and improving it, it is essential to review different models of quality education. These models articulate the dimensions and determinants of quality education and provide insights on improving educational quality in school organisations, including satellite primary schools.

The Goal Model, rooted in the school effectiveness paradigm from the 1960s, asserts that school organisations have specific, enduring, and normative goals to achieve (Cheng & Tam, 1997; Cheng, 2003), with the provision of quality education being a primary objective. A school is considered to deliver quality education if it meets or exceeds its stated goals using available resources; conversely, failure to achieve these goals may indicate poor educational quality. This model is effective for assessing quality education when organisational goals are clear and accepted by all stakeholders, suggesting that a lack of quality may arise if goals are shaped solely by powerful stakeholders rather than the broader community. Although organisational goals can vary, schools often prioritise academic achievement in public examinations as the sole indicator of quality (Cheng, 2003). Consequently, the Goal Model falls short of providing a comprehensive assessment of quality education, particularly neglecting the process dimension, which has been overlooked in studies of satellite primary schools in Zimbabwe.

The Resource Inputs Model, which emerged from the school effectiveness movement in the 1960s, asserts that quality resource inputs are fundamental determinants of quality education (Adams, 1993; Cheng & Tam, 1997; Cheng, 2003), with indicators such as high-quality student intake, qualified staff, superior facilities, low teacher-student ratios, competitive salaries, and substantial financial support. In this framework, quality education is seen as a natural outcome of these high-quality inputs. However, the model tends to focus excessively on inputs while neglecting the transformation process and contextual factors that influence educational quality. Studies of satellite

primary schools have similarly prioritised contextual and resource input factors. To achieve quality education, dynamic interaction among resource inputs, transformation processes, and contextual factors is crucial (Fuller, 1986). Thus, while resource inputs are necessary, they are insufficient for improving quality education.

Emerging in the 1980s, the Process Model emphasises that quality education cannot be defined solely by inputs and outputs; it focuses on the transformation processes within educational institutions (Riddell, 2008). These processes encompass management, teaching, and learning. The UNESCO Global Monitoring Report 2005 corroborates the significance of classroom dynamics and teaching methods in enhancing learning outcomes and overall quality (UNESCO, 2004). Echoing this perspective, Cheng (2003) asserts that a high-quality educational institution is characterised by effective internal functioning. The model emphasises that management, teaching, and learning are central to determining educational quality. However, the quality of transformation processes in satellite primary schools remains under-researched, highlighting the need for a more thorough examination of how pedagogical and management practices influence educational outcomes.

The Outputs Model, rooted in the school efficiency movement of the 1970s, measures quality education based on the outcomes achieved (Scheerens, Luyten & Ravens, 2011). Key quality indicators include learner achievement, completion rates, and transition rates (Cheng, 2003; Scheerens *et al.,* 2011). Proponents argue that measuring educational outputs is the primary method for assessing quality. However, this model's exclusive focus on cognitive outputs overlooks the social and affective dimensions of education (Creemers & Reynolds, 1996; Scheerens *et al.,* 2011). Relying solely on outputs for quality assessment is not holistic. A comprehensive understanding of educational quality must also consider context, inputs, and processes.

The Value Addition Model, emerging from the transformative school movement of the 1990s, interprets quality as a measure of change (Cheng, 2003; Stephens, 2003). This change is assessed by examining how the school system impacts learners, specifically focusing on the skills, knowledge, and attitudes that enable them to become productive members of society (Reddy, 2007). The model suggests that higher-quality education fosters valuable attributes in learners. However, it has been criticised for its narrow focus on change, neglecting the inputs, processes, and contextual factors that influence the change (Adams, 1993). Additionally, the challenges of assessing value addition both qualitatively and quantitatively limit the model's effectiveness in understanding the quality of pedagogical and management processes in satellite primary schools.

The Absence of Problems Model posits that the non-existence of internal and external challenges signifies high-quality education (Cheng, 2003). In this view, a lack of defects or deficiencies within a school organisation correlates with quality education, with some scholars referring to this as the "zero defects" approach. The model implies that the presence of problems indicates low educational quality. However, the relative nature of problem absence makes this model an unreliable tool for assessing the quality of pedagogical and management processes in satellite primary schools.

The Satisfaction Model asserts that a school provides high-quality education if it meets the needs of its stakeholders, including administrators, teachers, parents, learners, and education authorities (Cheng, 2003). Quality is considered high when outcomes align with stakeholder expectations and low when they do not (Cheng & Tam, 1997; Cheng, 2003). This model closely relates to Adams' (1993) notion of quality as reputation. However, stakeholder satisfaction is often subjective and difficult to quantify, as what satisfies one stakeholder

may not satisfy another. This variability limits the model's effectiveness in evaluating the transformation processes of satellite primary schools.

The Equity Model, gaining traction in educational literature, emphasises that personal or social circumstances should not obstruct access to education (OECD, 2012). In this framework, equality of opportunity serves as the primary indicator of quality education. The model underscores that quality depends on the fair distribution of resources and educational processes among learners with diverse needs (OECD, 2012). Schools that fail to address these diverse needs are considered low quality (Leu & Price-Rom, 2006; OECD, 2012). This model is particularly relevant in developing countries like Zimbabwe, which has adopted Inclusive Education policies in all schools, including satellite primary schools.

The Organisational Learning Model posits that internal processes and environmental factors influence the provision of quality education (Cheng & Tam, 1997; Cheng, 2003). This model advocates organisational learning as a means to address the internal and external challenges that hinder educational quality. It considers both internal and external factors to enhance educational provision. Existing literature has documented the impact of resource input and environmental factors on quality education in satellite primary schools (Mavhunga & Mazodze, 2014; Tarisayi, 2015), highlighting the need to explore internal processes to improve the quality of educational provision.

The Legitimacy Model recognises the increasing parental choice of educational institutions, creating a competitive market environment (Cheng & Tam, 1997; Cheng, 2003). Schools compete for clients by offering quality education to survive in this landscape, with

institutions attracting more clients often perceived as high quality. However, Fuller (1986) argues that legitimacy is frequently judged solely by academic achievement, neglecting other dimensions of quality. Consequently, the Legitimacy Model may not provide a comprehensive analysis of educational quality in satellite primary schools.

The Relevance of Education Model is gaining traction in the quality education discourse. Cheng (2003) argues that even if stakeholders are satisfied with the quality of education, it is deemed "useless" and of poor quality if its aims, content, practices, and outcomes do not align with current and future local needs. Quality education extends beyond the satisfaction of strategic stakeholders and the provision of resource inputs; it must also be relevant to local contexts (Tawil *et al.,* 2010; Tikly & Barrett, 2011). In other words, education is considered of good quality if it is pertinent to the learner's social, cultural, political, and economic environment. In line with this perspective, Zimbabwe replaced the bookish and Eurocentric curriculum inherited from its former coloniser with a Competence-Based Curriculum in 2015 (MoPSE, 2017). The nature and quality of pedagogical and management processes in satellite primary schools were explored through the lens of the Competence-Based Curriculum.

The Total Quality Management (TQM) Model conceptualises quality education as education that completely satisfies strategic constituencies in terms of context, inputs, process, and output variables (Cheng, 2003). The model underscores the need for the management of context, inputs, processes, and outputs to obtain a holistic understanding of quality education in school organisations. It shifts attention away from the quality of the context, inputs or outputs to all the dimensions of quality education (Hoy & Miskel, 2013; Hoy, 2019). Like the Organisational Learning Model reviewed above, the

TQM Model looks at the internal and external quality education aspects of the school organisation. Therefore, the model provides a holistic picture of quality education in school organisations. Research studies on satellite schools in Zimbabwe (PoZ, 2012; Mavhunga & Mazodze, 2014; Tarisayi, 2015; Sithole, 2017; Mwiinde & Muzingili, 2020) generally ignored the process dimension. This is why the book focused on the nature and quality of pedagogical and management processes in satellite primary schools.

The quest to establish factors that enhance the provision of quality education in school organisations led to the development of a large body of literature referred to as School Effectiveness Research (SER). School effectiveness is conceptualised by Cheng (1996 in Botha, 2010) as the extent to which a school adapts to its internal and external constraints and achieves its set goals. According to Botha (2010), school effectiveness entails the state in which the school functions and effectively attains its goals. The main goal of SER is to identify the characteristics of effective schools and recommend them for the improvement of quality education. There are three strands of SER: School Effects Research; Effective School Research (ESR); and School Improvement Research (SIR). This section also reviews Heneveld and Craig's (1996) School Effectiveness Model (SEM). The literature provides hints on how to improve the quality of education in satellite primary schools.

School Effects Research emerged in the mid-1960s as a reaction to the Coleman Report (1996) and the Plowden Report (1967) that concluded that schools had little effect on learners' outcomes in comparison to their ability and socio-economic backgrounds (Reynolds, Sammons, De Fraine, Townsend & Van Damme, 2011). School Effects Research seeks to establish the school-based factors that influence learner outcomes. Proponents of School Effects Research adopt the input-output model

and focus on the impact of resource inputs on learner outcomes (Teddlie & Reynolds, 2000). Fuller and Heyneman (1989) conducted School Effects Research and identified the following resource input factors that affect learner outcomes: the length of the instructional programme; expenditure per pupil; the availability of textbooks and instructional materials; school library activity; teacher training; and pupil feeding programmes. School Effects Research studies conclude that resource inputs are the primary determinant of quality education (Fuller & Heyneman, 1989; Riddell, 2008; Reynolds *et al.*, 2011).There is a close relationship between School Effects Research and the Resource Inputs Model. Like the Resource Inputs Model, School Effects Research has been criticised for exclusively focusing on the impact of resource inputs on learning outcomes at the expense of context and process factors. Resource inputs are not the sole determinant of learner outcomes, context and transformation process factors also influence learner outcomes (Teddlie & Reynolds, 2000; Stephens, 2003; Reynolds *et al.*, 2011). In essence, the context, inputs, and transformation process of a school system interact in influencing learner outcomes.

In line with School Effects Research, existing studies on satellite schools in Zimbabwe (PoZ, 2012; Jenjekwa, 2013; Mangwaya et al., 2013; Mavhunga & Mazodze, 2014; Mwiinde & Muzingili, 2020) focused on the contextual and resource input dimensions of quality education. This has created a knowledge gap on the nature and quality of transformation processes in satellite primary schools.

The Effective Schools Research (ESR) emerged in school effectiveness literature in the early 1970s as a reaction to Schools Effects Research. The ESR moved away from the input-output model and instead focused on the process variables that influence learner outcomes (Riddell, 2008). This model of school effectiveness attempts to understand quality education in terms of educational processes at both

school and classroom levels (Stephens, 2003; Riddell, 2008). It rejects the narrow focus on school inputs and outputs and a lack of attention to school and classroom processes associated with School Effects Research. The ESR puts pedagogical and school management processes at the centre of the quality education discourse (Riddell, 2008; Botha, 2010). It concurs with the Process Model that the transformation process of a school organisation is the primary determinant of quality education. More so, the ESR expanded the definition of outputs to include social and affective outcomes (Teddlie & Reynolds, 2000). The ESR and the Process Models have been criticised for ignoring the context and input dimensions of quality education. The impact of context and input variables on the provision of quality education in satellite primary schools is well documented in Zimbabwe (Chakanyuka *et al.*, 2009; Hlupo & Tsikira, 2012; PoZ, 2012; Jenjekwa, 2013; Mangwaya *et al.*, 2013; Mavhunga & Mazodze, 2014; Tarisayi, 2015). What is missing is the nature and quality of the pedagogical and management processes of the satellite primary school during the provision of quality education.

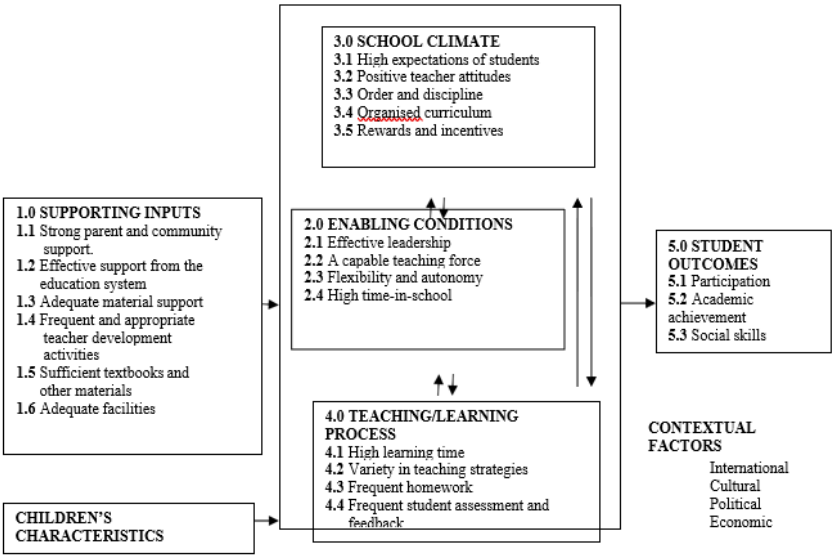
The SIR Model emerged in the quality education discourse in the late 1980s. School improvement refers to the systematic and sustained effort aimed at changing learning conditions in schools to enhance learner outcomes (van Velzen, 1985, cited in Stephens, 2003). Proponents of the SIR, such as Edmonds (1979), are not merely interested in identifying and describing the characteristics of effective schools; they aim to create effective schools (Teddlie & Reynolds, 2000). The focus of SIR is to improve the quality of education in school organisations. This strand of school effectiveness research is relevant to this study as it provides insights into strategies that education stakeholders can adopt to enhance the quality of education in satellite primary schools.

Proponents of the SIR model emphasise that a complex web of factors influences learner outcomes and quality education. These factors are rooted in the context, inputs, and process dimensions of quality education (Riddell, 2008). Achieving quality education in school organisations requires the unrestricted interaction of context, resource inputs, and process factors (Fuller, 1986). The SIR model aligns with the TQM and Organisational Learning Model in advocating a holistic approach to providing quality education in school organisations. However, this book focused on the nature and quality of pedagogical and management processes, addressing a knowledge gap in the discourse on quality education in satellite primary schools.

Teddlie and Reynolds (2000) observe that school improvement is unique to each school since each school's context is unique. Hence, there is a need to involve local stakeholders in designing school improvement programmes because externally imposed school improvement programmes may fail to meet local requirements. Following the counsel of Teddlie and Reynolds (2000), strategies for improving the quality of education in satellite primary schools were generated from the perspectives of the teachers and TICs who are local stakeholders.

Heneveld and Craig (1996) synthesised research findings from School Effects Research, Effective Schools Research, and School Improvement Research into one School Effectiveness Model (SEM). As depicted in **Figure 2.2**, the SEM comprises an interrelated network of four broad factors that influence school effectiveness and learner outcomes. The factors are supporting inputs from outside the school, enabling conditions, school climate, and the teaching and learning process. The SEM monitors and assesses both the qualitative and quantitative indicators of school effectiveness and learner outcomes.

**Figure 2.1: School Effectiveness Model**




Source: Heneveld and Craig (1996:20)

Supporting inputs are the first set of factors in the model. According to Heneveld and Craig (1996), supporting inputs that are vital for the provision of quality education include strong parental and community support, effective support from the government or responsible authority, and adequate facilities. The other supporting inputs are appropriate teacher development programmes and sufficient curriculum materials. Cheng and Tam (1997) corroborate that the availability of resource inputs is indispensable for the provision of quality education. Thus, the inadequacy of supporting inputs can be a barrier to school effectiveness and the provision of quality education. There is a close relationship between the variables of the dimension of the supporting inputs and those of the Resource Inputs Model.

Enabling conditions for school effectiveness are the second set of factors in the model. According to Heneveld and Craig (1996), enabling

conditions include effective school leadership, a capable teaching force, flexibility and autonomy, and adequacy of time spent in school. Effective school leadership entails adequate support to teachers in terms of curricula materials and infrastructure, the pursuit of high instructional standards, and regular horizontal and vertical communication (Heneveld & Craig, 1996). The variables of a capable teaching workforce include content mastery, teaching experience, and the extent to which the teaching staff is full-time (Heneveld & Craig, 1996). The model emphasises high time in school as a prerequisite for quality education and learner achievement. A study conducted by Abadzi (2009) in Mali, Honduras, Nigeria, Zambia, and the Middle East corroborates and elaborates that limited instructional time because of Double-Sessioning, teacher absenteeism, and learner absenteeism impacts negatively on learner outcomes. The implication is that enabling conditions are critical for school effectiveness and the provision of quality education.

The third set of school effectiveness factors is referred to as school climate. The elements of school climate include positive teacher attitudes and expectations, order and discipline, an organised curriculum, and a system of rewards and incentives (Heneveld & Craig, 1996). The nature of the school climate has a bearing on the provision of quality education. For instance, negative teacher attitudes and expectations can negatively affect the behaviour and achievement of learners. A system of rewards and incentives for teachers is very important in the context of Africa, where the living and working conditions of teachers remain largely unsatisfactory (Chinapah et al., 2013; International Labour Organisation [ILO], 2016). Such living and working conditions can create a school climate that is not conducive to school effectiveness and the provision of quality education. Overall, a positive school climate enhances the provision of quality education.

The teaching and learning process is the fourth factor of the SEM that determines school effectiveness. The variables of the teaching and learning process include high student learning time, learner-centred teaching methods, frequent homework, and continual student assessment and feedback (Heneveld & Craig, 1996). Other quality assurance scholars (Cheng & Tam, 1997; Cheng, 2003; Alexander, 2008) corroborate the positive relationship between a healthy teaching and learning process and quality education. The teaching and learning process variables are quite useful in exploring the nature and quality of the pedagogical processes in satellite schools.

The final factor that influences school effectiveness is the external environment of the school organisation. Heneveld and Craig (1996) state that, the four factors that determine school effectiveness are embedded in a cultural, political, and economic context. The authors underscore that the school interacts with its environment in providing quality education. Lotz-Sisitka (2013) and Tikly (2011) acknowledge the role of the external environment in enabling or constraining the provision of quality education. The four factors identified by Heneveld and Craig (1996) provide a holistic picture of the determinants of school effectiveness and quality education.

Despite its comprehensiveness, the SEM has received criticism. Reddy (2007) and Mbayo (2011) agree that the model has limitations for application in developing countries, as most of its supporting evidence was drawn from developed nations. In short, the model is not rooted in the African context. In response to this criticism, Heneveld and Craig (1996) revised the model by incorporating research findings from African countries such as Tanzania, Uganda, Mozambique, and Madagascar. They emphasise that "strategies for improving the quality of primary education need to recognise the potential understanding and insight that come from local experience" (Heneveld & Craig, 1996:10). Guided by this advice, data for the book were generated from

TICs and teachers with local experience regarding the nature and quality of pedagogical and management processes in satellite primary schools.

The literature reviewed in the preceding sections identifies the context, inputs, process, and output dimensions of quality education. Guided by the reviewed literature and the research problem, the Open Systems Theory (OST) was adopted as the theoretical framework of the book. Among other dimensions of quality education, the OST articulates the transformation process dimension that existing studies of satellite schools ignore.

Ludwig von Bertalanffy, an Austrian Biologist developed the OST (Owens & Valesky, 2011; Ballantine & Hammack, 2012; Hoy & Miskel, 2013). The theory originated in the Natural Sciences in the 1950s and subsequently spread to the Social Sciences in the 1960s (Koskinen, 2013). It was further developed by Boulding (1956); Katz and Khan (1966); Buckley (1967); Litterer (1969); and Kast and Rosenzweig (1972) among other scholars (Scott & Davis, 2007; Ballantine & Hammack, 2012; Hoy & Miskel, 2013). The philosophy of Holism associated with the German philosopher Hegel informs the OST. Holism entails that a social system is made up of integrated and interdependent parts that, when put together, make the behaviour of the organisation different and distinct from the behaviour of its components (Mele, Pels & Polese, 2010). The crux of Holism is that the whole is greater than the sum of its parts. In tandem with the philosophy of Holism, the OST studies the school organisation taking into consideration the interrelationships among its sub-systems in the provision of quality education.

The OST developed in reaction to the rational and natural systems theories that employ a Closed Systems Approach (CSA) to the study of

organisations (Scott & Davis, 2007; Hoy & Miskel, 2013). Exponents of the CSA perceive organisations as self-contained entities that are not interactive with their external environments (Lunenburg & Ornstein, 2012; Hoy & Miskel, 2013). They focus on the internal functioning of organisations with no attention to the influence of external environmental factors. Expressed differently, proponents of the CSA assume that organisational behaviour can be isolated from external environmental forces. The major limitation of the CSA is that it fails to consider how organisations are dependent on their external environments for survival (Lunenburg & Ornstein, 2012; Hoy & Miskel, 2013; Hoy, 2019). The OST argues that there is a symbiotic relationship between the school organisation and its external environment. School organisations import resource inputs from their external environments for their survival and the provision of quality education (Ballantine & Hammack, 2012; Hoy & Miskel, 2013). The Resource Inputs Model reviewed earlier corroborates that quality education is the product of high-quality resource inputs the school imports from its environment. Therefore, the context and resource inputs are critical determinants of quality education.

The interdependence of the organisation and its environment receives primary attention in the OST. Rather than overlooking the environment as closed systems theories do, "the open systems perspective stresses the reciprocal ties that bind and interrelate the organisation with those elements and flows that surround and penetrate it" (Scott, 1987:9 as cited in Hoy & Miskel, 2013:22-3). Katz and Khan (1978) acknowledge the primacy of the external environment in the OST. The authors argue that open systems move towards incorporating within their boundaries the external resources essential for survival. This also applies to satellite primary schools where the external environment is the source of resource inputs that are vital for organisational effectiveness and the provision of quality education.

Open systems theorists perceive school organisations as open systems. The concept of an open system refers to a set of interdependent parts that relate to the accomplishment of an overall goal (von Bertalanffy, 1968). It entails a set of integrated and interacting organisational elements deliberately set up to attain specific goals. Hoy (2019) contends that school organisations are open systems that adapt to changing external conditions to be effective and, in the long term, survive. Bush (2011) concurs and adds that there is a two-way interactive relationship between the school organisation and its external environment. The view that the school organisation is an open system continues to enjoy popularity in Educational Management, and Sociology of Education literature (Lunenburg, 2010; Owens & Valesky, 2011; Ballantine & Hammack, 2012; Lunenburg & Ornstein, 2012). Therefore, for one to understand the satellite primary school they must view it as an open system. True to the nature of open systems, school organisations are open and dynamic systems existing in and interacting with their environments. On whether the school organisation is an open or closed system, Meyer (1978:18 cited in Hoy & Miskel, 2013:9) argues, "The issue of open versus closed school system is closed on the side of openness." Echoing similar sentiments, Lunenburg (2010) says it is virtually impossible to envisage a school that is not interactive with its environment. In line with this view, the satellite primary school was studied as an open system.

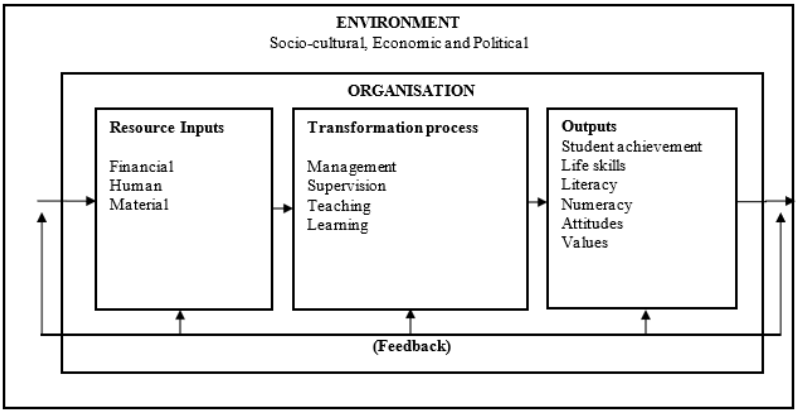
The OST posits that school organisations are goal-seeking open social systems that move towards goal attainment (Rao & Narayana, 2008; Lunenburg & Ornstein, 2012). The previously reviewed Goal Model supports the idea that school organisations are open systems striving to achieve specific objectives. One of the central goals of most education systems is to provide quality education to all learners. Zimbabwe's education system is goal-oriented, as reflected in the Mission Statement of the MoPSE, which commits all schools "to

provide equitable, quality, inclusive, relevant, and competence-driven infant, junior, secondary, and non-formal education" (MoPSE, 2015:5). School organisations set goals that reflect their purpose (Tripon & Dodu, 2011), addressing the needs of the school's strategic stakeholders (Rao & Narayana, 2008; Owens & Valesky, 2011). This indicates that school organisations do not function in isolation from their external environments, as proposed by the CSA.

From the perspective of the OST, organisational goals are indispensable to organisational effectiveness and the provision of quality education. They enhance organisational effectiveness by stipulating the purpose of the organisation; directing the decision-making process; and influencing the formal organisational structure (Hoy & Miskel, 2013; Hoy, 2019). Organisational goals also specify organisational tasks; guide the allocation of resources; and provide the benchmarks for assessing the quality of an organisation's products and services (Rao & Narayana, 2008; Hoy & Miskel, 2013). Arguably, schools without well-defined goals are not only purposeless and chaotic but also deficient in terms of quality education.

According to von Bertalanffy (1968), an open system consists of five integrated and interdependent elements, namely the external environment, resource inputs, transformation process, outputs, and feedback (Lunenburg, 2010; Ballantine & Hammack, 2012). **Figure 2.1** depicts the five elements of an open system. The literature on Models of quality education and School effectiveness research reviewed in the preceding sections identifies the same elements as the main dimensions of quality education. The OST identifies feedback as another critical element and dimension of quality education.

Figure 2.2: Open Systems Theory




Source: Ballantine and Hammack (2012:22)

As depicted in **Figure 2.1**, an open system acquires resource inputs from its external environment, transforms them into outputs, and discharges the outputs into the environment (Lunenburg, 2010;Owens & Valesky, 2011). The OST emphasises the interdependence among the basic elements of a school organisation in the provision of quality education. If one element of an open system is mal-functional or deficient, a ripple goes through the whole school system, affecting the quality of the outputs (Ballantine & Hammack, 2012; Hoy & Miskel, 2013). The book establishes the nature, quality, and impact of transformation processes in satellite primary schools on the provision of quality education.

School organisations, including the satellite primary school, do not exist in a vacuum. They are located in a particular setting or environment. The organisation's external environment refers to the social, political, and economic forces outside the boundaries of the organisation that can either enhance or impinge on organisational stability and efficiency (Scott & Davis, 2007; Lunenburg & Ornstein, 2012). The external environment refers to everything that surrounds the organisation and influences it in some way. The OST argues that the

school organisation's external environment not only provides resources for the organisation but also creates constraints and opportunities (Lunenburg, 2010; Ballantine & Hammack, 2012). This implies that the school organisation's external environment can enhance or impede the provision of quality education. Existing studies by Chakanyuka *et al.* (2009); Hlupo and Tsikira (2012); PoZ (2012); Jenjekwa (2013); Mangwaya *et al.* (2013); and Mavhunga and Mazodze (2014) among others covered the impact of context and resource input factors on the provision of quality education in satellite primary schools. This book fills the knowledge gap on the impact of pedagogical and management processes on the provision of quality education in the same school type.

Organisations have system boundaries that separate them from their external environments. The concept of a system boundary is conceptualised by Hoy and Miskel (2013) as the demarcation line for the admission of resource inputs into the system. The system boundary can either foster or hinder the interaction between the organisation and its external environment. In a closed system, the boundaries are impermeable, and the system is isolated from its surrounding environment (Scott & Davis, 2007; Ritzer, 2015). In contrast, open systems have boundaries that are open to flows, inflows, and outflows of matter energy and information (Owens & Valesky, 2011; Ballantine & Hammack, 2012). Schools are open systems with permeable boundaries that allow them to import resource inputs from their external environments for the provision of quality education.

The OST observes that schools are open systems that acquire resource inputs from their external environments. The concept of resource inputs entails the materials, information, and energy flowing into the organisation from the external environment (Lunenburg, 2010; Hoy & Miskel, 2013). School organisations utilise four kinds of inputs, namely:

human resources, financial resources, physical resources; and information resources. According to Ballantine and Hammack (2012), human resources include school administrators, teachers, learners, and non-teaching staff. Financial resources refer to the funds the school organisation utilises to finance its operations. Physical resources encompass the equipment, facilities, raw materials, and infrastructure that the school organisation acquires from its environment. Information resources include knowledge, government mandates, curricula, goals, values, and other kinds of information used by the school organisation. To proponents of the OST, the quality of a school organisation's resource inputs determines the quality of its outputs (Lunenburg, 2010; Owens & Valesky, 2011; Lunenburg & Ornstein, 2012). The Resource Inputs Model reviewed earlier holds the same view. Thus, resource inputs have a bearing on the quality of education a school provides. As noted earlier, existing studies on satellite schools in Zimbabwe adequately covered this area. The thrust of this book is on the nature and quality of pedagogical and management processes in satellite primary schools during the provision of quality education that existing studies are silent about.

Another element of an open school system that the OST identifies is the transformation process. Ballantine and Hammack (2012) state that the transformation process entails those organisational functions that convert resource inputs into outputs. In school organisations, management, teaching, and learning processes make up the transformation process. These processes transform learners into acceptable members of their society by equipping them with the knowledge, skills, and attitudes that enable them to contribute meaningfully to national development (Lunenburg, 2010; Ballantine & Hammack, 2012). The OST emphasises that the quality of the transformation process of a school organisation is the central determinant of quality education (Ballantine & Hammack, 2012; Lunenburg & Ornstein, 2012). The Process Model and ESR in the

preceding sections corroborate that quality transformation processes are the critical determinants of quality education. However, existing studies in Zimbabwe (PoZ, 2012; Jenjekwa, 2013; Mutema, 2014; Tarisayi, 2017; Tarisayi & Manik, 2017) are generally silent about the nature and quality of the transformation process of the satellite primary school type in the provision of quality education. This book intends to plug the knowledge gap.

The OST notes that the school organisation processes the resource inputs that it acquires from its environment into outputs or outcomes. Outputs are the organisation's products and services (Ballantine & Hammack, 2012; Hoy & Miskel, 2013). In school organisations, outputs include student knowledge, achievement, skills, dropout rates, transition rates, and attitudes and values (Lunenburg, 2010; Ownes & Valesky, 2011; Lunenburg & Ornstein, 2012). Proponents of the OST regard outputs as indicators or benchmarks for assessing the quality of education a school organisation provides. The Outputs Model reviewed earlier concurs and argues that measuring the outputs of education is the only significant way of assessing the quality of education. Existing studies (Chakanyuka *et al.,* 2009; Hlupo & Tsikira, 2012; PoZ, 2012; Jenjekwa, 2013; Mangwaya *et al.,* 2013; Mavhunga & Mazodze, 2014; Tarisayi, 2015) focused on how contextual and resource inputs variables are militating against the provision of quality education in satellite primary schools. This book is different, it plugs the knowledge gap on the nature and quality of pedagogical and management processes in satellite primary schools, and their impact on the provision of quality education.

According to the OST, the school organisation receives feedback about the quality of education it provides to its clients. Feedback entails the information that the organisation receives from its stakeholders concerning the quality of its services and products (Hoy & Miskel, 2010; Lunenburg & Ornstein, 2012). The feedback can be positive or

negative. Information feedback of a negative kind assists the school organisation to correct its deviations from the set goals (Lunenburg, 2010; Lunenburg & Ornstein, 2012; Hoy, 2019). It provides the school organisation with self-correcting opportunities that enable it to adapt to the changes and demands in its external environment (Lunenburg, 2010; Ballantine & Hammack, 2012). In this way, the school can attain its goal of providing quality education. This book is a form of feedback intended to stimulate societal awareness of the knowledge gap regarding the nature and quality of the pedagogical and management process in satellite primary schools. It is for this reason that the findings and recommendations of the book were generated from the perspectives of the research participants using open-ended interview questions.

Quality assurance scholars have recognised the utility of the OST in organisational analysis. It helps educators conceptualise the school organisation, understand how its components fit together, and identify which elements do not align (Ballantine & Hammack, 2012). This holistic approach to organisational analysis addresses the issue referred to by Rao and Narayana (2008) as the "components mentality", which focuses on some subsystems rather than the organisation as a whole to ensure quality education. Tripon and Dodu (2011) agree that the OST allows for a comprehensive assessment of the entire school organisation, identifying its needs and the demands of its stakeholders, and recommending strategies to enhance quality education. Feedback facilitates a holistic evaluation of quality education, considering the context, inputs, processes, and outputs (Hoy & Miskel, 2013; Hoy, 2019). Despite the holistic nature of the OST, this book aims to address the knowledge gap regarding the nature and quality of pedagogical and management processes in the provision of quality education in satellite primary schools.

Lunenburg and Ornstein (2012) recommend the adoption of the OST for analysing organisational effectiveness. The authors argue that the OST enables stakeholders to study all the elements of a school organisation in their four broad categories of environment, resource inputs, transformation process, and outputs. Ballantine and Hammack (2012) agree and add that the OST contributes to the quick and accurate diagnosis of quality assurance problems, focusing the educator's efforts on those dimensions that require change and innovation. This book focused on the nature and quality of pedagogical and management processes in satellite primary schools so that they are adapted to enhance the provision of quality education in this school type.

Despite the potential benefits of the OST, it has its limitations. Owens and Valesky (2011) argue that the OST does not provide a way forward when constituents of a school organisation are mal-functional in the provision of goods and services to customers. Lunenburg (2010) concurs that the OST does not specify what to do when organisational analysis establishes factors militating against the provision of quality education. This implies that the OST gives little direct guidance regarding the actual improvement of quality education in schools. The book overcame this limitation by proposing recommendations for enhancing the quality of pedagogical and management processes in satellite primary schools from the perspectives of the research participants. In the context of the OST, recommendations from the research participants are a form of feedback.

In recent years, the provision of quality education has become the overarching goal of virtually all developing countries, including Zimbabwe. The priority given earlier to educational expansion and access is being replaced by policies that are calling for quality education (Reddy, 2007; Chinapah, Cars & Grinberg, 2013; UNESCO, 2015). Quality education is now the single most important factor that

makes the difference between socio-economic development and underdevelopment in the 21st century (Steyn, 2001; Grant, 2017). Chinapah *et al.,* (2013), aptly express the concern for quality education in Africa. They argue that it is only by providing quality education for all as a fundamental human right and striving towards attaining desired levels of mastery for all that the African continent can meet the challenges of the next century and take its rightful place in the international arena. Quality education has become the centre of focus in the education discourses of both developed and developing countries. Several factors have helped to place quality education on the priority list of the African education agenda. The factors discussed in turn below provide insights into the need to provide quality education in school organisations.

Quality education became a central focus globally in the late 1990s when the quest for quality education gained prominence at the international level (Alexander, 2008; Nsubuga, 2011; Chinapah *et al.,* 2013). For most African countries emerging from colonialism between the 1960s and 1980s, the primary emphasis was on the quantitative expansion of educational provision to give Blacks access to education that had been restricted during the colonial era (Nsubuga, 2011; Shizha & Kariwo, 2011). In the context of Zimbabwe, Gatawa (1988) notes that educational reforms in the early post-colonial period prioritised educational expansion and access over the quality of education in the political and educational agenda. This focus on expansion and access was further reinforced by the Jomtien World Declaration on EFA in 1990, which committed all nation-states, including Zimbabwe, to ensure universal access to and completion of primary education for all learners by the year 2000 (UNESCO, 2004). The emphasis remained on educational access rather than on the quality of education.

By 1990, Zimbabwe had achieved the EFA targets for universal access to primary education, with a literacy rate of 92%, the highest in Africa

at that time (MoPSE, 2015). The then President of Zimbabwe, Robert Gabriel Mugabe, commented on this high literacy rate, stating, "Yes, we are some 90% up there regarding literacy rate, but…it is not just literacy rate that we are aiming for…we would like to get the essence of what they call education at its highest level [quality education]" (MoPSE, 2015:1). The country should not focus solely on achieving high literacy rates, as literacy is merely a quantitative indicator of quality education. There is a need for Zimbabwe and other developing countries to shift their focus from quantity to the quality of education.

Since the 1990 Jomtien World Declaration on EFA, the EFA debate has witnessed a broad shift of focus from exclusive preoccupation with access, enrolment, and retention to a greater interest in the quality of education (Alexander, 2008; Chinapah et al., 2013; Munene, 2015). Quality education as compared to access to education was relatively ignored in the EFA agenda (UNESCO, 2004; Nsubuga, 2011; Shizha & Kariwo, 2011). The UNESCO GMR 2005 argues that just getting learners into school or educational access is not enough because the quality of education also warrants attention (UNESCO, 2004). Focusing on educational access at the expense of quality education creates what Gatawa (1988) terms, the 'quality-quantity dilemma'. There is a growing realisation that educational access and quality education are complementary rather than sequential elements (Nsubuga, 2011). While quality education is impossible without access, educational access without quality is often meaningless to those for whom access is made possible (Ginsburg, Moseley & Pigozzi, 2010; Pigozzi, 2010). Henceforth, quality education is a necessary complement to enrolment, access, and retention. Developing countries, including Zimbabwe, must strive to maintain the quality of education in their quest to expand educational access.

The UNESCO GMR 2013-2014 also raised the concern with quality education. It reports that of the 21 out of 85 developing countries that

were studied, half the children were not learning the 'basics' (UNESCO, 2014). This suggests that 21 developing countries are not providing quality education. The report also reveals huge urban-rural disparities in learning with quality education skewed in favour of urban areas (UNESCO, 2014). The same scenario was also noted in Zimbabwe where satellite primary schools located in FTLRRAs are providing the lowest quality of education in the country (Jenjekwa, 2013; Mangwaya *et al.,* 2013; Mavhunga & Mazodze, 2014; Tarisayi, 2015; Mwiinde & Muzingili, 2020). Quality education should be accessible to all, not just to children of the elites or those in towns. Indeed, it is for the poor and disadvantaged that quality education is required to enhance their upward social mobility and living standards (UNESCO, 2011).

The rising concern with quality education was strongly reflected in the protocols of the Dakar Framework for Action (DFA) 2000 and the Education 2030 Framework for Action. The DFA emphasises the need to address universal access to education and the quality of education simultaneously. Two of the goals of the DFA explicitly address the qualitative dimension of education. Goal number two aimed at ensuring that by 2015 all children, particularly girls, children in different circumstances and those belonging to ethnic minorities have access to free and compulsory primary education of good quality (UNESCO, 2005). Goal number six focused on improving all aspects of the quality of education and ensuring excellence for all so that recognised and measurable learning outcomes are achieved by all; especially in literacy, numeracy, and essential life skills (UNESCO, 2005). The DFA expired in 2015.

The expiry of the DFA in 2015 culminated in the Education 2030 Framework for Action that builds on and continues the Education for All (EFA) movement. The Education 2030 Agenda focuses on increased and expanded access, inclusion, equity, quality, and learning outcomes,

giving everyone an equal opportunity, and leaving no one behind (UNESCO, 2015). Sustainable Development Goal(SDG) number four of the Education 2030 Framework for Action commits all nations to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNESCO, 2015:4). The thrust of the Education 2030 Framework for Action is on inclusion and equity in the context of universal access and quality education.

Similarly, Zimbabwe's MoPSE in its Vision Statement seeks "to be the lead provider of inclusive quality education for socio-economic transformation by 2020" (MoPSE, 2015:1). From the Vision Statement, it is apparent that Zimbabwe has identified quality education as one of the determinants of its socio-economic transformation agenda. The prominence of quality education in international education discourse since 2000 is a reaction to the quantitative vision that prevailed during the 1990s when the emphasis was predominantly placed on expanding access to education (Tawil *et al.,* 2012). Quality education is attracting unprecedented levels of interest in developing countries primarily because of countries' efforts to reverse the decline of quality in the context of the quantitative expansion of educational provision (Leu & Price-Rom, 2006; Ginsburg *et al.,* 2010). The GoZ and the MoPSE must adapt to the prospects and complexities of quality education in satellite primary schools to enhance the provision of quality education in this school type.

Quality education is regarded as one of the determinants of socio-economic development. According to UNESCO (2011), quality education develops cognitive skills such as literacy, numeracy, and critical thinking that contribute to economic growth. It facilitates higher rates of innovation, production, and adoption of new technology by the labour force (Hanushek & Wößmann, 2010; Hanushek & Woessmann, 2012; Grant, 2017). This makes quality education an irreplaceable ingredient for socio-economic development,

particularly in Third World countries that are generally underdeveloped. Expanding educational provision and improving school attainment has not guaranteed socio-economic development in many developing countries (Hanushek & Wößmann, 2010; UNESCO, 2011). What has been missing is attention to the quality of education (Hanushek & Wößmann, 2010; Hanushek & Woessmann, 2012; Munene, 2015). In the same purview, the Presidential Commission of Inquiry into Education and Training (PCIET) (1999) argues that the Eurocentric and academic curriculum that Zimbabwe inherited after the attainment of independence in 1980 led to the over-production of employment seekers rather than employment creators. Zvobgo (1999) concurs and adds that the rapid and phenomenal expansion of educational provision in Zimbabwe following the attainment of independence in 1980 outpaced economic growth, creating the problem of educated unemployed youths. An educational system that produces graduates who are not relevant to national development is devoid of quality. More so, it is a form of wastage in education.

There is growing realisation in developing countries, including Zimbabwe, that quality rather than quantity of education is a critical determinant of socio-economic development (Sifuna & Sawamura, 2010; Chinapah *et al.,* 2013). The former President of Zimbabwe Robert Gabriel Mugabe recommended the development of a new primary and secondary school curriculum framework with an emphasis on Science, Technology, and Entrepreneurship to stimulate socio-economic transformation in the country (MoPSE, 2015). Following this recommendation, Zimbabwe developed the Competence-Based Curriculum (CBC) for primary and secondary education in 2015. The CBC has a bias towards Science, Technology, Engineering, and Mathematics (STEM) (MoPSE, 2015). The research studies conducted in both developed and developing countries found that the quality of the labour force as measured by average scores in Mathematics and Science has a strong correlation with national economic growth rates

(Hanushek & Wößmann, 2010; Hanushek & Woessmann, 2012). The MoPSE (2015) agrees and underscores that STEM education that is part of the CBC, inculcates skills that are vital for socio-economic development.

A causal nexus exists between quality education and wage earnings. In a study conducted in South Africa, Mocan (2014, cited in Biyase & Zwane, 2015) found that an increase in the quality and level of education leads to a corresponding rise in an individual's wage rate. International research corroborates that there is a positive correlation between quality schooling, higher lifetime incomes, increased productivity, and economic growth (UNESCO, 2004; Hanushek & Wößmann, 2010; Hanushek & Woessmann, 2012; Grant, 2017). This observation underscores the importance for developing countries to enhance the quality of education they provide. Quality education is essential for improving the incomes, living standards, and economic status of people residing in FTLRRAs, helping to elevate their livelihoods above the level of cheap farm labour.

The integration of technology in education is one of the prerequisites for socio-economic development in the 21st century (Blignaut, Hinostroza, Els & Brun, 2010; Nikoloski, 2016). The ability of a nation to maintain a competitive edge in the 21st century depends mainly on the extent to which it utilises Science and Technology (Blignaut et al., 2010). The absence of technology in an education system results in an inadequate and non-transformative education system (Jenjekwa, 2013). An education system that is deficient regarding the utilisation of ICT is of poor quality. Such an education system has a high risk of producing technologically, irrelevant and redundant graduates. To avert this problem, Zimbabwe developed a CBC framework in 2015 that has a bias towards STEM (MoPSE, 2015). STEM education incorporates ICT that has become one of the benchmarks of quality education in both developed and developing countries. The availability and adequacy of

ICT facilities and equipment were considered in the exploration of the nature and quality of pedagogical and management processes in satellite primary schools.

There is mounting evidence that quality education determines learner retention, improved attendance patterns, and universal completion of primary education (Gershenson, 2016; Brown &Kurzweil, 2018). There is also evidence of a positive correlation between the poor quality of education and high learner attrition rates (Hanushek & Wößmann, 2010; Ginsburg *et al.,* 2013). The poor quality of education can influence learners to drop out and parents to withdraw their children from school. Olaniyan and Okemakinde (2008, cited in Sandvik, 2011) confirm this trend. They report that parents in many developing countries believe that education increases their children's chances of getting high-paying jobs. In other words, some parents regard their children's education as an exit route out of poverty. If education fails to guarantee formal employment, some parents withdraw their children from school, leading to high attrition rates and low enrolments (Olaniyan & Okemakinde 2008 cited in Sandvik, 2011). The improvement in the quality of education contributes to a reduction in repetition and dropout rates, and transition and completion rates at all levels of schooling (UNESCO, 2004; Gershenson, 2016; Brown & Kurzweil, 2018). Hence, quality education is a prerequisite to the universal completion of a full course of primary education by all learners. It becomes imperative to address the challenges in the transformation process of the satellite primary school so that learners enrolled in this school type complete a full course of quality primary education.

This chapter reviewed the literature on quality education. It looked at definitions and models of quality education, and school effectiveness research. Quality education is a relative and multi-dimensional concept that is difficult to define in universal terms. The chapter

operationalised quality education as relevant and holistic education that equips learners with both cognitive and non-cognitive skills to function effectively and productively in their society. From the literature, it emerged that there are four main dimensions of quality education, namely context, inputs, process, and outputs. However, existing studies concentrated on the impact of context and input factors on the provision of quality education in satellite primary schools. Henceforth, there was a need to explore the nature and quality of pedagogical and management processes in satellite primary schools during the provision of quality education. Guided by the literature and the quality education question in satellite primary schools, the OST was adopted as the theoretical lens of the book. The chapter ends by discussing the rationale for quality education at the global level in general and Zimbabwe in particular.