

**THE CONTRIBUTION OF IGNATIAN PEDAGOGICAL PARADIGM TO
HOLISTIC EDUCATION IN PRIVATE SECONDARY SCHOOLS IN KIGALI CITY,
RWANDA**

BY

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**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN
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DECLARATION

I, undersigned, declare that this thesis is my original work accomplished through personal readings, thoughts, and research. It has never been presented to any institution of higher learning by anyone for an academic award. Information obtained from other sources has been duly acknowledged.

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DEDICATION

This work is dedicated to all teachers who endeavour to shape the future by educating learners holistically.

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ABSTRACT

This study examined the contribution of Ignatian Pedagogical Paradigm (IPP) to the holistic education in Private Secondary School in Kigali City, Rwanda. The main thrust of this study was to reinvigorate the role of private partnership in education in ensuring quality living by the provision of holistic education. The research sought to find out (a) ways in which teachers' consideration of students' context influence holistic education; (b) how teaching and learning experiences influence holistic education; (c) how students' reflection on experiences stimulate holistic education; (d) the extent to which students' actions motivate holistic education; (e) the effect of students' evaluation on holistic education; (f) challenges encountered in implementing IPP in schools for holistic education; and (g) possible strategies that can be put in place to enhance the implementation of IPP for holistic development. The study was guided by holistic theory of knowledge and learning. It used a mixed method approach combining quantitative and qualitative approaches. It combined cross-sectional survey for quantitative approach and a collective case study for qualitative approach. Purposive, stratified and simple random sampling techniques were used to select schools, head teachers, teachers, and students as participants. Data was collected using document analysis guide, questionnaire, interview guide, and observation checklist. The instruments were validated through triangulation and pilot study and a strong Cronbach's alpha reliability index was found. Quantitative data were coded, entered into Statistical Package for Social Sciences (SPSS) analysed statistically and presented in tables and figures. Independent samples t-test was used to compare a school that has adopted IPP and that which has not adopted it with regard to holistic education. Qualitative data were summarized, analysed descriptively and presented in narrative form. The findings revealed there was a significant difference in respondents' ratings between a school run on IPP and a school that has not adopted IPP with regard to the level of holistic education and various ways used to provide holistic education. Thus, the study concluded, a school that has adopted IPP offered more opportunities for holistic growth of students than a school which has not. A cycle of context, experience, reflection, action, and evaluation plays an important role in holistic education enterprise. The IPP provides more opportunities for holistic growth by emphasizing on collaboration and partnership, personalized learning, academic and human excellence. It was recommended that the government, schools, teachers, and parents adopt IPP and its principles in the interest of holistic growth of students.

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ABBREVIATIONS AND ACRONYMS

CRE:	Christian Religious Education
EAC:	East African Community
EFA:	Education for All
ELT:	Experiential Learning Theory
ESD:	Education for Sustainable Development
ICAJE:	International Commission on the Apostolate of Jesuit Education
IPP:	Ignatian Pedagogical Paradigm
JSEA:	Jesuit Secondary Education Apostolate
MINEDUC:	Ministry of Education (Rwanda)
9YBE:	Nine-Year Basic Education
TLT:	Transformative Learning Theory
UNESCO:	United Nations Educational, Scientific and Cultural Organization

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This introductory chapter is an overview of the topic being examined in the study. The study examines the contribution of Ignatian Pedagogical Paradigm to holistic education in Private secondary schools in Kigali City, Rwanda. The chapter situates the study in social, educational, political, and academic context. It provides a synopsis of the research theme, its prevalence and the rationale to carry out the study. The chapter is organized according to different sub-headings including the background of the study, the statement of the problem, the research questions and research objectives. Under the significance of the study, the chapter also explains how the study is beneficial to different education stakeholders. The scope and delimitation of the study is also described. The chapter further presents the theoretical framework that guide the study, the conceptual framework and the operational definition of some key variables.

1.1 Background to the Study

Today's teaching and learning communities have become more diversified and complex than ever before. Not only are schools frequented by students of different cultural, political, economic and religious backgrounds but also the needs of each learner have become more complex owing to the dynamic and ever changing world. As societies change, so too, do societies' expectations of educational institutions as they prepare the young for adult life (Radnor, 1994). In a study on the impact of education and poverty on terrorism in Turkey, Feridun (2016) established long-run relationship between terrorist attacks and level of education in Turkey. No relationship was established between various terrorist attacks in Turkey and poverty. His study concluded that there is a causal effect between low education and terrorist attacks. The implication of the study was that people with higher education were less inclined to take part in terrorist activities. Thus, education has the potential to reduce many ills that the world faces today.

Education, from its Latin root *educare* means bringing out, evoking something potential, hidden and latent (Rathnam, 2015). Thus, education is meant to engage people fully so that they can discover their hidden talents and live meaningful lives. For an education to engage people fully and realize their potential, it must be holistic. Drawing from

the legacy left by educationists such as John Dewey, Johann Pestalozzi, Rudolf Steiner, Maria Montessori and other education gurus, Ron Miller (2000) argues that education should be understood as the art of cultivating the moral, emotional, physical, psychological and spiritual dimension of the developing child. This kind of education advocated for is holistic. It arose in part from a reaction against certain types of schooling, which were seen as too narrow, too fragmented, or in some ways failing to take due account of the student's real or inner self (Forbes, 2003). This schooling separates head from heart, facts from feelings, theory from practice, and teaching from learning. This has negative effects. As Palmer (2007) puts it, the separation results in minds that do not feel and hearts that do not think.

Fragmented education offers students bloodless facts that make the world distant and remote and produces ignorant emotions that reduce truth to how one feels. It promotes theories that have little to do with life and practices that are uniformed. It involves teachers who talk but do not listen and students who listen but do not talk (Palmer, 2007). This traditional and fragmented education would define learning as a simple transfer of information which may lead to students' lack of understanding. Such students would forget what they have learnt immediately after examination and those students may not know how to apply what they have learnt in real-life circumstances. The world today needs an alternative education that aims at unity and not at separation. This alternative education would define learning as a process towards decision making and action rather than a simple acquisition of knowledge and skills.

The alternative education needed today is an education that is holistic. Forbes (2003) pointed out that holistic education claims that it wants first, to educate the whole child (all parts of the child), second, to educate the student as a whole and not as an assemblage of parts, and third, to see the child as part of a whole society, humanity, the environment, some spiritual whole, from which it is not meaningful to extract the student. A holistically educated person is therefore an integrated and responsible person who cares for oneself, for others, and the entire world. Consequently, there is need to rethink teaching and learning strategies in order to make them holistic and capable of forming such an integrated person.

1.1.1 Strategies for holistic education.

There are many strategies that can be used to educate students holistically. Miller (2010) argues that since we need to reach the head, hands and heart of a child in holistic

education, we need a broad range of teaching approaches that reach those different aspects of a child. Three basic approaches, Miller (2010) argues, need to be integrated for holistic teaching to occur namely transmission, transaction, and transformation. Transmission teaching occurs when students receive and accumulate knowledge and skills through reading a book or listening to teachers' explanations. This is a traditional mode where knowledge is passively received. Transmission teaching is achievement-oriented. Transaction teaching is a problem-solving approach which allows students to interact with the material to be learned in order to construct knowledge. Here teachers are not expected to pour knowledge into learners' heads as is the case of transmission teaching; rather, they assist learners in their construction of knowledge by creating experiences where students' old information transact with the new information to create meaningful knowledge. Transaction teaching is inquiry-oriented.

Transformation teaching, on the other hand, perceives teaching as creating conditions that are capable of transforming the learner on many different levels, cognitive, affective, and physical. It invites both students and learner to discover their potential as learners and members of a wider society. Teaching, as transformation, is essentially holistic but, as Miller (2010) rightly puts it although it explicitly deals with the whole person, the other two positions can also be used in whole child education. In other words, holistic teaching and learning environment can include aspects of achievement and inquiry but those aspects alone cannot make it holistic. Transformation includes both transmission and transaction.

In addition to transmission, transaction and transformation approaches in holistic education provision, Saw (2013) adds a connecting approach as opposed to fragmentation where subjects are individually divided; transdisciplinary approach which sees all disciplines as connected and pursuing the same aim; meaningfulness approach based on the premise that people learn better when what is being learned is important to them; integrating community approach which emphasizes the development of relationships inside and outside the school; and collaborative learning approach which encourage personal and collective responsibility.

In more specific ways however, there are other strategies that have been identified by various schools as to provide quality education although they may not necessary lead to holistic education. For example, in study conducted at a university in Malaysia concerning the impact of holistic education approaches on first-year business students' experiences,

Rasiah (2015) found meaningful evidences that showed how technology-enhanced learning via the X-Space collaborative classroom and blended learning, played an important role in establishing building blocks and safety nets that allowed students to learn in a secure and nonthreatening environment. Such an environment positively impacted on students' learning experiences, and successfully supported their social, personal, and academic needs. In another study in Malaysia, Yong and Khoo (2015) reported a study on how coaching as an innovative program of holistic education in preparatory high school prepares students for brighter future. Coaching was found to be successful in helping students gain skills to complement their academic achievements and in building in them self-awareness and self-authorship. Other researchers such as Bizimana and Orodho (2014) and Ntamushobora (2015) have suggested that provision and utilisation of quality teaching and learning materials, collaborative learning, experiential pedagogy, contemplative practices, autobiographical techniques, service learning, and creative or artistic expressions are strategies that can be used to improve quality of education.

While there are many strategies used to provide holistic education, one unique strategy, Ignatian Pedagogical Paradigm (IPP), seems to accommodate and combine other strategies and promise to lead to holistic education. The IPP also known as Ignatian or Jesuit pedagogy is both a philosophy of learning and strategy used in Jesuits schools founded on the Spiritual Exercises of St Ignatius of Loyola, the founder of a religious order in the Roman Catholic Church, known as Society of Jesus or Jesuits. The Jesuit Secondary Education Association (JSEA, 1993) noted that the relationship between the retreatant, the retreat director and God in the Spiritual Exercises is applied and likened to the learner-teacher-knowledge relationship in a classroom. "Just as the retreat director in the Spiritual Exercises helps the retreatants to seek and find the will of God at work in the radical ordering of their lives" (JSEA, 1993, p. 8), so too, the primary role of a teacher is to facilitate the growing relationship of the learner with truth, particularly in the matter of the subject being studied. The IPP can therefore be taken as the application of spiritual principles to classroom settings.

The goal of Jesuit education is an integral development of students. Jesuit pedagogy aims at developing "a well-rounded person who is intellectually competent, open to growth, religious, loving, and committed to doing justice in generous service to the people of God" (Dominuco, 2000, p. 215). Ignatian pedagogy offers an opportunity to explore any

curriculum in a manner that allows holistic education. The model seeks to develop men and women of conscience, competence, compassion, and commitment (Pennington, Crewell, Snedden, Mulhall & Ellison, 2013). It considers five elements deemed essential, if explored deeply, for holistic learning to take place. Those are context, experience, reflection, action and evaluation. As shown in Figure 1, those elements act interdependently in a continuous cycle.



Figure 1. Elements of IPP

(Source: Retrieved from Saint Louis University's (n.d) Reinert Centre for Transformative Teaching and Learning)

Figure 1 shows how the five elements of IPP interact. According to Saint Louis University (n.d), all learning is situated in a specific context; rooted in previous experiences and the results of new learning experiences; dependent upon and deepened by reflection on those experiences; made meaningful when new knowledge is put into some kind of actions; and reinforced by explicit evaluation of those actions and the degree to which learning has occurred. The teaching and learning process begins with context of learning which consists in considering who the students and the teachers are. The context comprises what both the learner and the teacher bring to the classroom from their backgrounds. Experience entails what students are led to experience in class so that they can interact actively with the content of learning and acquire target knowledge and skills. Through the help of the teacher, students are guided to reflect on their experiences thereby knowing how things are and why they are that way. This reflection leads to action where students demonstrate what they do with what they have learned in real life contexts. The IPP process ends with and evaluation where

teachers and students review the teaching and learning process for possible improvement. This evaluation may be the basis for new experiences which leads to further learning. The IPP is therefore a process of reflecting on experiences in order to take appropriate action. If well used, this process is believed to lead to holistic education that the world so badly needs today.

1.1.2 Benefits of holistic education.

Holistic education has a lot of benefits. It empowers learners to examine critically the cultural, moral and political contexts of their lives, leading them towards actively challenging and, if need be, changing cultural values to meet human needs. In a study involving Ontario University students, Lauriecella and MacAskill (2015) examined both if and why university students believed that increased exposure to holistic principles would have been beneficial to their success after finishing secondary education. The study found that exposure to holistic education principles while at secondary school would have made students be more successful at the university. Increased exposure to holistic education principles at secondary education “would have helped students better choose their course of study in university, to more fully understand their career opportunities after graduation, and to be more informed about the community, the natural world, and citizens with whom they interact” (p.70). Holistic education is therefore ensures better future for students.

Holistic education can also help students secure a sustainable future. A study was conducted in Swedish schools by Pauw, Gericke, Olsson and Berglund (2015). The study examined the effectiveness of Education for Sustainable Development—ESD in promoting the sustainability consciousness of adolescents. The study adopted holism and pluralism as essential aspects of ESD. The study found that when students are allowed to express their viewpoints and opinions, to critically reflect on what is being learned and to meaningfully chart a course of action, they report more frequent sustainability behaviours.

In another study conducted in Bangalore on the role of value education in empowering the youth, Shobha and Kala (2015) argued that in order to survive and sustain in today’s volatile, competitive and quickly changing world, educational institution need to become more interconnected and holistic with greater stress on human values and with great concern for others. The study found that exposure gained by students through the value-education workshops has helped them to understand the value of discipline and moral

uprightness. A holistic approach to value education has ensured that there is the balanced development of all dimensions of students' personality. Thus, holistic and value oriented education can help secure an integrated personality thereby enabling an optimum development of the intellectual, physical, emotional, moral and spiritual aspects of learners' growth.

The benefits of holistic education cannot be overemphasized. Hare (2010) has noted that holistic education promotes the importance of relationships as all levels within a learning community in which educators and students work together in an open and collaborative relationship. At the same time, it empowers learners to examine critically the cultural, moral, and political contexts of their lives. This leads them to actively challenge and change some of their cultural values in order to meet human needs. Holistic education is therefore crucial for meaningful human development.

1.1.3 Consequences of lack of holistic education.

The lack of holistic education in any society can result in severe consequences. In the face of worldwide terrorism, global warming, mass migration, human trafficking, and gender stigmatization the quality of education offered in our schools is questionable and the preparation of the youth to navigate such a world becomes more demanding. Education is often discussed in low-level utilitarian terms, argues Nussbaum (2009) contending that, across the globe, education is now geared towards profitability or economic growth rather than human development. Education for profitability neglects the humanistic abilities of critical thinking and imagination that are so crucial to promoting human development (Nussbaum, 2009). Economic growth does not always translate into quality living.

Referring to a study in Japan, Nicolas (2011) reported that while modern Japanese education has made great advances in science and technology, mathematics, and memory work, it has become weaker in teaching imagination, creativity, and critical analysis. Without this imagination, creativity and critical thinking, that scientific prowess cannot be sustained. A balanced education is therefore necessary to real development to occur and be sustained.

On the African continent, the political turmoil that has paralyzed some countries for the last decade challenges educators in their efforts to mould the youth into responsible adults. Cases of Gabon, Somalia, South Sudan, Burundi, Democratic Republic of Congo, and Zimbabwe, Kenya, to mention but a few, depict situations where crisis of leadership has put

the lives of many at risk. From those crises come unending civil wars, migrations, religious and ethnic conflicts, corruption, poverty and, a complete degradation of human dignity. For example, a major role in the moral crisis, corruption, war and anarchy has been played by the colonially-motivated alienation of the African mind (Eegunlusi, 2017). Studying the Yoruba people of Nigeria, Eegunlusi (2017) argues that Africa's rich moral heritage of dignity, discipline, diligence, faithfulness, honesty and sound integrity has been eroded by Western education.

In countries of East Africa there have been cases where instead of promoting harmony in the society, educational institutions have breeding places for political tensions and violence. In Kenya for example, as expounded by Otieno (2015), the crisis facing education showed clear ethnic manifestations. Otieno noted that instead of promoting diversity, academic freedom and national cohesion, some universities have become battlegrounds for ethnic violence and politicised education through a continued ethnicisation of university administration in both school and students' leaderships. Tribalised school administration is a blow to holistic education without which transcending ethnic confinements becomes almost impossible.

In Rwanda, education has exacerbated political and ethnic conflicts. In a study examining the role of education in combating genocide-ideology in the post-genocide Rwanda, Mafeza (2013) argued that prior to the 1994 genocide in Rwanda, both the structure and the content of education reinforced the ideology of hatred and divisionism. The same sentiment was expressed by Rutayisire, Kabano and Rubagiza (2004), and UNESCO (2016) noting that major education policies and programs implemented between 1962 and 1994 reflected and amplified ethnic inequality in the society and contributed to the profiling of Rwandans into exclusive groups.

Nonetheless, Hilker's (2010) and King's (2013) suggest that despite progress in the Rwandan education sector, the remaining challenges mirror some of those that were present before the genocide. Examples cited include inequalities of educational opportunities in the post-primary sector, tensions over history teaching, and teacher-centred teaching methods. They suggested that unless appropriate measures are taken, there is a risk that, instead of playing a positive role in building peace, some dimensions of education policy and

practice in Rwanda may continue to exacerbate tensions that could eventually lead to future violence. To this effect, Hilker (2010) suggested that the government must take as priority,

expanding opportunities at secondary and post-secondary levels, addressing on-going inequalities of access to secondary education by providing financial support irrespective of ethnic background or past experiences, ensuring that the language policy does not create tensions by outing certain groups at advantage or disadvantage, introducing a new history resource book, materials and methods, and supporting wider dialogue and peace education projects for the youths encouraging them to discuss and move beyond the conflict and tensions of the past (p.2).

Fortunately, progress has been made to eradicate those challenges and implementing those suggestions. For example it was found by Mafeza (2013) that education in the post genocide-Rwanda has contributed to national reconciliation by creating a culture of peace and promoting the universal values of justice, tolerance, respect for others, solidarity and democracy (p. 9). In addition, according to the Rwandan Ministry of Education (MINEDUC, 2015a), one of the education sector objectives is to dispense a holistic moral, intellectual, social, physical and professional education through the promotion of individual competencies and aptitudes in the service of national reconstruction and sustainable development of the country.

Vision 2020 is long-term development plan that seeks to fundamentally transform Rwanda into a middle income country with people who are healthier, educated and prosperous. It sets out to create an internationally competitive, dynamic economy, supported by a productive, skilled workforce (MINEDUC, 2013). Education is a driving engine and a key to the success for such a visionary plan. For Rwanda therefore, as it is for many other developing countries, the growth envisioned is knowledge-based and its realization depends on the capacity of its education systems to transform societies into better living spaces.

While no single solution can contain crises faced by societies today, Ntamushobora (2015) argues that one of the solutions to those crises is an education that can transform people holistically and empower them for deliberate engagement in the transformation of their communities into viable places to live. Such an education empowers learners to think critically, to love both God and others, and to bring change in their community (Ntamushobora, 2015). This education is holistic and IPP is a strategy that can provide such

an education because, as Dominuco (2000) puts it, it is holistic, reflective and transformative. However, despite the promises of IPP in enhancing holistic education, it is not clear whether the model is effective and whether it is informing education system in Rwanda since there is only one private secondary school that has adopted IPP model (Jesuits Rwanda-Burundi, n.d). The role of private educational institutions in providing holistic education should therefore be examined.

1.2 Statement of the Problem

The role of private partners in education cannot be overemphasized. They allow maximizing the potential for expanding equitable access to schooling, and increasing efficiency and educational outcomes (Patrinos, Barrera-Osorio & Guaqueta, 2009). Through this partnership, governments also take advantage of specialized skills offered by certain private organizations (Patrinos, et al., 2009). Rwanda values the crucial role of such partnership and has initiated a private sector-led development (Republic of Rwanda, 2012) and has encouraged private organizations to open and run schools (MINEDUC, 2013). However, there is an outcry among private schools which have drastically declined in the recent past. Many private schools reported a two-third decline in student admissions at the close of 2016 and more than 30 private schools have closed indefinitely while others are struggling to stay afloat (Kanamugire, 2017). This was partly as a result of free primary and secondary education through Nine and Twelve-Year Basic Education programs introduced in 2009 and 2012 respectively, causing abandonment of private schools and influx of students in public schools.

The decline of private schools can weaken the effort to improve education and can threaten holistic education without which a sustainable future cannot be secured. The closure of private secondary schools in Rwanda reduces educational choices available for students and limits chances for schools to compete and transform into high quality schools. The influx of numbers in public schools also causes high teacher-student ratio and overload on teachers, limiting their time for individualized attention to students and making them superficially duty-bound. They fail to engage every student holistically.

With private schools' decline, the improvement of holistic education is most unlikely. As private schools strive to attract clients, resist closure and stay in business, they are also criticized for commercialization of education (MINEDUC, 2015b). This limits opportunities

for students' holistic education by inhibiting child-friendly learning environment and giving little room for the acquisition of basic values, discipline, creativity, critical thinking. The priority given to science and technical education at the expense of humanities may also worsen the situation. The education statistics show that in the academic year 2016, 36.4% and 31.7% of secondary school students were enrolled in sciences and technical education respectively against 13.9%, 13.4%, and 4.6% in humanities, languages, and teacher-education respectively (MINEDUC, 2016). Neglected humanities and arts, crucial for human development, and values enshrined in them, are lost, putting the quality of holistic education and quality of life at risk. While there is no substitute for holistic education, private partners, to stand their grounds, should redefine their role and focus on raising the standards of education higher for meaningful and real boost to the country's envisioned growth. One way of doing this is by devising special strategies that are capable of increasing quality education and make it more holistic. One such special strategy is IPP, a teaching and learning strategy that is believed to foster holistic education.

Researchers such as Rasiah (2015), Yong and Khoo (2015), Ntamushobora (2015), Bizimungu (2012), and Bizimana and Orodho (2014) have suggested different strategies that can be adopted to improve quality education. In their studies done in Malaysia, Kenya and Rwanda, they have suggested that technology enhanced learning, coaching, collaborative learning, school-parents partnership, and availing of resources contribute to holistic education. However, none of their studies was carried out in private secondary schools in Kigali and none explored how IPP contributes to holistic education. This is why there was need to carry out a study on the contribution of IPP to holistic education in private secondary schools in Kigali City. To appreciate its contribution, a comparison was made between a school that has adopted IPP model and that which has not.

1.3 Research Questions

The use of IPP in teaching and learning requires teachers to focus on interplay between context, experience, reflection, action and evaluation. Those elements, if well considered, contribute to holistic education. This study was guided by the following research questions:

- a. In what ways does teachers' consideration of students' context influence holistic education in private secondary schools in Kigali?

- b. How do teaching and learning experiences influence holistic education in private secondary schools in Kigali?
- c. How does students' reflection in teaching and learning stimulate holistic education in private secondary schools in Kigali?
- d. To what extent do students' actions motivate holistic education in private secondary schools in Kigali?
- e. What is the effect of students' evaluation on holistic education in private secondary schools in Kigali?
- f. What are the challenges encountered in Implementing IPP in private schools in Kigali?
- g. What strategies can be put in place to enhance the implementation of IPP for holistic development?

1.4 Objectives of the Study

This study was guided by three main objectives.

- i. It sought to find out how IPP contributes to holistic education through its five components namely context, experience, reflection, action, and evaluation. Specifically it aimed at establishing how a consideration of students' context, how teaching and learning experiences, how students' reflection, and their actions and evaluation influence holistic education.
- ii. It aimed at identifying challenges encountered in implementing IPP in schools.
- iii. It also intended to suggest identify different strategies that can be used to enhance the implementation of IPP in schools for holistic development of students.

Hypothesis

H₀: There is no statistical significant difference between a private secondary school that has adopted IPP model and that which has not adopted IPP in relation to holistic education.

H₁: There is statistical significant difference between a private secondary school that has adopted IPP model and that which has not adopted IPP in relation to holistic education.

1.5 Significance of the Study

Holistic education is a concern for many especially those who are not satisfied with the quality kind of education being offered to learners in educational institutions. This study proposed IPP as a strategy that can be used to educate students holistically thereby improving

the quality of education in school. This study will benefit the general public, education policy makers, administrators, teachers, students, parents, and the researcher and research community in general. First, since the results of the study will be made public through publication, this study will raise the awareness of the general public about the extent to which private secondary schools can utilise IPP to provide holistic education. As a result, the general public may join efforts in improving holistic education, aware that such an education will improve the wellbeing of the whole society.

Second, the study has suggested possible strategies that can be used to holistic education improvement. Those strategies are important to policy makers as they can be a starting point for policy formulation towards empowering teachers and students in the improvement of holistic education. This is particularly important to members of the Society of Jesus, author of IPP. Jesuit educational institutions worldwide are run on the IPP model. An identification of challenges met in implementing IPP can help Jesuits, in the light of emerging challenges, formulate appropriate and lasting solutions in order to make the paradigm more responsive to its goals. A copy of this work will be available for them.

Third, the study also will benefit the administrators of private schools especially those who are concerned with the quality education in private schools. Since the study make recommendations on how to improve holistic education in schools, administrators can use those recommendations in order to take appropriate measures in their respective schools to cater for holistic growth of students. The administrators will benefit from this study since the results of the study to be communicated to them can incite them for a continual self-assessment and improvement in the holistic education enterprise. The challenges met in holistic education such as resources constraints will also be communicated to them and this will raise awareness of what efforts need to be made in terms of resource mobilisation and management.

Fourth, this study will also benefit teachers as principal curriculum implementers and agents of change especially in targeted schools as the results of the study will be communicated to them. It will inspire teachers to conduct a self-evaluation on the extent to which the teaching strategies they select contribute to holistic education. The study is particularly important to teachers who are not conversant with Ignatian model. It is an opportunity for them to interact with the model and appreciate its contribution. This can

eventually lead to the betterment of teaching and learning process. It is also an opportunity for teachers as principal facilitators of learning to evaluate the quality of their teaching practices. They identify some of their needs and take necessary steps for their fulfilment. In doing so, they take responsibility of their own wholeness in order to facilitate holistic teaching and learning in their respective classrooms. As Rathnam (2015) noted in his study, teachers will not take students where they have not been themselves. Thus, teachers' wholeness matters if they are interested in creating the conditions that would allow the flowering of students' wholeness.

Fifth, this study benefits students as they get first-hand information on the state of holistic education in their respective schools. As they responded to questions regarding how their holistic education is being provided, they were made aware of how their various needs are met. That awareness can make them take responsibility of their own learning and claim their rights to holistic education. They carry the concerns for holistic education with them as they climb education ladder.

Sixth, parents will also benefit from this study. Parents' expect schools to offer skills and values to their children. A study that seeks to find out how schools ensure holistic growth of students is important for students. Through parent-teacher association committee, parents will be informed on the findings of this study and challenged that schools face in the holistic education enterprise. As results, parents may take an active role in the education of their children rather than relegating that role to schools alone. An improvement in holistic education of parents' children will also boost their confidence in schools' role to build a better society.

Lastly, the study was also significant for the researcher not only because of its importance in academic progress but also because it explored the researcher's area of interest. It is a starting point for further researches in the same area as a researcher's contribution to quality education in Rwanda. The research community in general will also benefit from this study. The research not only produced a body of knowledge that fills various gaps in the studies done in the same or related area but also, and most importantly, it raised various research concerns. It has pointed out other related research areas that deserve attention of other researchers.

1.6 Scope and Delimitation of the Study

This study was conducted in Kigali City, Rwanda. The study was centred on establishing the extent to which IPP contributes to holistic education. Since the research wished to establish whether there is a difference between private schools run on Ignatian pedagogical model and those without it in their efforts to provide holistic education, it was necessary that, for contextual reasons, the research be limited to Kigali City in which majority of private schools in the country are found and where a school run on Ignatian pedagogical model was located. Holistic education requires the teacher, child, curriculum, school community, and teaching and learning process to be holistic (Miller 2010). It was not possible to study every variable in this single study. This study focused on teaching and learning strategies, notably IPP as a strategy that promises to explore any curriculum in a manner that ensures holistic education. The variables that were not measured in this study were held constant so that they may not have a bias effect on other variables. However, aware that absolute control of extraneous variables is impossible (Mugenda, 2008), the results of this study are interpreted on the basis significance and not certainty.

1.7 Theoretical Framework

A framework can be defined as a structure or a support, a skeleton that holds the flesh together and gives it a form (Mvumbi & Ngumbi, 2015). In a study, a theoretical framework brings together and explains the various arguments made in that study. Anfara and Mertz (2006) argued that a theoretical framework is an empirical or quasi-empirical theory of social and/or psychological processes at a variety of levels that can be applied to the understanding of a phenomenon, allowing the researcher to see and understand certain aspects of the phenomenon being studied. It was important therefore to select a theory that forms the basis for examining the contribution of IPP on holistic education.

This research was guided by the Holistic Theory of Knowledge and Learning developed by Yang (2003). The theory holds that knowledge is a social construct which consists of three distinctive and interrelated facets namely: explicit, implicit and emancipatory (Gutierrez, Baralt & Shuck, 2010). Explicit knowledge is mental apprehension that is transmittable in formal and systematic format (Yang, 2003). It is the cognitive components of knowledge. Examples of such knowledge include theories, models and formulas. For example, a patient who needs a physician looks for a qualified doctor who has

the adequate knowledge on how to treat illness and who is certified to carry out his or her duties. This can be shown by excellent academic qualifications although the patient may not need to look at them.

Implicit knowledge is the behavioural component of knowledge that denotes the learning that is not openly expressed or stated. It is the kind of knowledge that comes from and exists in one's behaviour, actions, and accumulated experiences (Gutierrez, et al., 2010). However, Yang (2003) noted that experience itself cannot automatically become valid implicit knowledge. Only the learning and familiarity evolved from experience that has been confirmed can be viewed as knowledge. Routinized actions and the tacit rules that underpin intuitive decision making are example of implicit knowledge. In the example of a patient, on top of academic qualification, equally important is the doctor's professional experience and practical expertise because theory without practice is not enough. It is this experience and expertise that constitutes implicit knowledge.

The emancipatory facet is the affective component of knowledge and is reflected in affective reactions to the outside world. It is emotional affection, value-laden, indicated by feelings and emotions people have in relation to the objects and situations around them (Yang, 2004). In the patient case, a sick person will still hesitate to visit the particular doctor if the doctor's competence is in explicit and implicit knowledge alone. The doctor's personal care of clients, professional integrity, and interpersonal communication skills are equally crucial in determining the patient's choice. This constitutes emancipatory knowledge. Only when there is adequate explicit, implicit and emancipatory knowledge can one be said to have holistic knowledge. This echoes IPP's efforts to form persons of conscience (explicit), competence (implicit) and compassion (emancipatory).

The three facets of knowledge are different not only in nature, function, domain, and approach, but also in carriers, direct sources, evaluation criteria, and ultimate goals. The explicit facet is within the domain of theory and carried by abstract symbols. The implicit facet is within the domain of practice and carried by concrete and vivid experiences. The emancipatory facet is within the domain of human spirit and carried by values (Yang, 2003). However, those facets are interconnected and complement each other in a way that they become indivisible. Table 1 shows how the three facets of knowledge are founded on different knowledge layers.

Table 1

Knowledge Facets and Layers

Knowledge layers	Knowledge Facets		
	Explicit	Implicit	Emancipatory
Foundation	Axioms, assumptions, beliefs, hypotheses	Habits, social norms, traditions, routines	Values, aspirations, vision
Manifestation	Theories, principles, models, conceptual frameworks, formulas	Tacit understandings, know-how, intuition, mental models	Attitudes, motivations, learning needs, equity, ethics, moral standards
Orientation	Rational	Practical	Freedom

Source: Yang (2003, p. 115).

Table 1 above shows interactions between knowledge facets and layers. The first layer is a stratum of foundation or premise, which is the basis for knowing and determines the boundary of knowledge; the second layer, manifestation, represents the outcomes of knowing; while the third layer, orientation, defines the direction and tendency of knowing action.

Knowledge is created through interaction among those three facets. In fact, each of the three facets of knowledge provides support needed for the other facets to exist (Yang, 2004). The process of using knowledge facets to change thoughts, behaviours and values is what Yang (2003) refers to as learning process, a threefold pattern of acquisition, creation and transformation. Knowledge acquisition is the process of gaining knowledge from outside sources such as attending a lecture or reading a book; knowledge creation is the process of learning that happens when the lecture or book is digested and re-emerges as new understanding or new insights; while knowledge transformation occurs when knowledge in one facet is reformatted into knowledge in another facet (Gallagher, Rocco & Landorf, 2007). For example, a change in belief in someone can become a habit or a way of proceeding such as when a positive change in the belief about the value of women in a patriarchal society makes someone become an advocate for women's rights.

1.7.1 Strengths of the theory.

The holistic theory of knowledge and learning sees learning not only as an individual activity but also as a social event (Gutierrez, et al., 2010). Learning does not happen in a vacuum but in a specific context for a social group. The theory encourages group learning. Learning is understood as the process whereby knowledge is created, acquired, transformed, converted, or utilized in a different context from its origin (Yang, 2003), implying that knowledge transforms the learner. Therefore, the theory provides an opportunity to transform the society for better. Gallagher et al. (2007) added that the theory offers an integrative framework for understanding the interactions of cognition, feelings, and behaviour in learning.

If knowledge is human beings' understanding about the reality through mental correspondence, personal experience, and emotional affection with outside objects and situations (Yang, 2004), this an understanding allows learners to create schemes as implicit knowledge that help them recall previous information as explicit knowledge and attach sentiments as emancipatory knowledge to the information (Gutierrez, et al., 2010). Indeed, as Miller (2010) rightly puts it, “the aim of whole child education is the development of children and adolescents who can think, feel and act and whose bodies and souls are nourished” (p. 13). Holistic theory of knowledge and learning therefore has several strengths although it is not without challenges.

1.7.2 Weaknesses of the theory.

The theory holds that knowledge is created and transformed through the interactions among the three knowledge facets. However, the theory neither explains the nature of interaction between knowledge facets (Gallagher, Rocco & Landorf, 2007). Thus, unlike Yang's (2004) awareness that “the whole point of a theory—any theory in all kinds of academic and professional fields—is to offer an adequate explanation of a social or natural phenomenon in an explicit way “ (p. 260), his theory is not explicit enough. It does not give indicators of holistic education and does not give directions to teachers on how to assist learners acquire holistic knowledge in the teaching-learning process. The weaknesses of this theory are filled by IPP which stipulates how teachers are to help learners acquire (holistic) knowledge through the use of context, experience, reflection, action and evaluation. Thus, the weaknesses of the theory will not affect the result of this study.

1.7.3 Application of the theory to the current study.

Holistic theory of knowledge and learning holds that knowledge consists of three indivisible facets and that each of the three facets consists of three layers. The theory is applicable to this study since it provides the basis of what constitutes holistic knowledge, the provision of which the study investigates. Holistically educated students have adequate explicit or theoretical, implicit or practical, and emancipatory or affective knowledge, each of them being manifested differently. The theory therefore provides lenses through which holistic education can be evaluated. As the theory holds, students learn through thinking, doing, and feeling. Teachers must facilitate that learning process. The current study examines how such a process generates holistic knowledge through the use of context, experience, reflection, action, and evaluation.

1.8 Conceptual Framework

A conceptual framework is a description of relationships between variables in a given study. It is, in Orodho's (2009) terms, a graphic or diagrammatic representation of the relationship between dependent and independent variables in a study. Put differently, Mugenda (2008) concurs that a conceptual framework is a concise description of the phenomenon under study accompanied by a graphic or visual description of major of the study. The relationships between variables in this study are represented in Figure 2 followed by an explanation of how those variables interact.

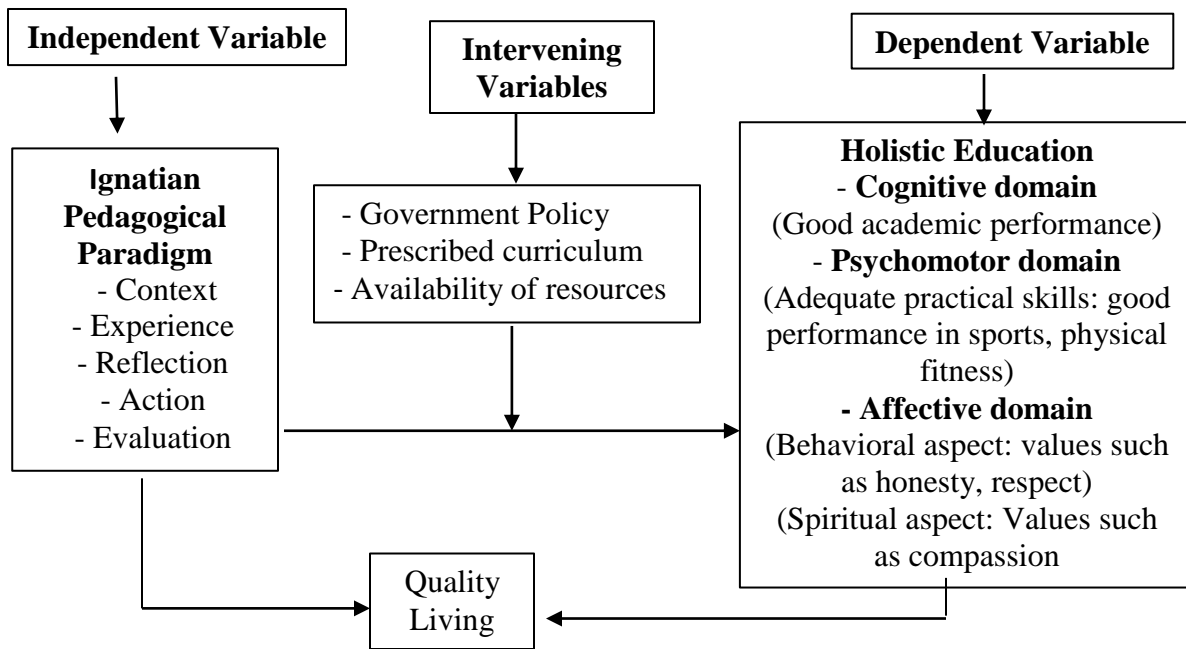


Figure 2. Interaction of Variables in the Study

(Source: Adapted from JSEA, 1993)

Figure 2 shows holistic education as dependent variable and Ignatian Pedagogical Paradigm as independent variable. The appropriate use of IPP's elements namely context, experience, reflection, action and evaluation determine the quality of holistic educational provision. In their instructional relationships with students, teachers focus on who the students are by looking at their context and their background; they ensure that students have real experience of what they learn by designing instructions based on the various needs of students; they promote students reflection by encouraging them to look at why and how they learn in order to deepen the understanding and the implication of what they have learnt. Teachers also encourage students to take action following what they have learned and involve students in activities that enhance more learning. Teachers and students must further verify how well learning has taken place by carrying out meaningful evaluation. In using IPP's elements teachers ensure holistic education.

Holistic education is represented by cognitive, psychomotor and affective domains of knowledge. To echo Yang's (2003) holistic theory of knowledge and learning, holistically educated students present adequate explicit, implicit and emancipatory knowledge in the domain of theory, practice and values respectively. In the cognitive domain, students must demonstrate for example excellent academic performance especially at national

examinations. In the psychomotor domain, students must show adequate practical skills not only through good performance in physical activities such as sports but also through other manipulative activities prescribed by the curricula. They have to be physically fit or show a high level of participation in physical activities and sports. In the affective domain, students not only portray desirable and acceptable values manifested in behavioural attitudes such as respect and honesty but also in spiritual values such as compassion.

However, other factors, while not examined in this study, may come into play for holistic education to be effectively provided. For example, for holistic education to take root, the government policy must be favourable. The curriculum must be interconnected and trans-disciplinary allowing teachers and students to interact in a way that promotes holistic education. The resources in terms of infrastructures and teaching and learning materials must also be available and sufficient. Holistic education leads to improvement of the quality living not only for students but also for other members of the society and the entire world. Thus, holistic education should be promoted at all cost in all educational institutions.

1.9 Operational Definition of Key Terms

Action: In Ignatian tradition, action is an internal human growth or change and its external manifestation. It is what students do as a result of their changed behaviours such as helping others, improved academic performance, and change in behaviours.

Context: In the teaching and learning process, the context of the learners is their background that includes the socio-economic, political, religious, and emotional aspects. Contextualised teaching and learning is therefore anchored on students' diverse contexts such as schools, homes, and communities and instructional design is based on students' various needs.

Care and Concern for Students: All that a teacher does to accommodate varied needs of students. Teachers must have individualized attention and respect for students' unique circumstances and concerns based on their socio-economic backgrounds.

Evaluation: It is the process of measuring the well-rounded growth of students. It includes not only measuring the degree of mastery of knowledge and skills but also measuring growth in values such as compassion, respect, and honesty.

Experience: In Ignatian tradition, experiencing learning means registering a sensation of affective matter in addition to a cognitive grasp. It is an acquisition of principles and the reaction to those principles. Students must for example indicate whether they like what they learn. Teachers can promote it through class participation, class or study visits, role playing and experiments.

Holistic education: It is a kind of education that takes into account the whole person by responding to his or her intellectual, physical, emotional, and spiritual needs. It considers three domains of learning: cognitive, psychomotor and affective. Holistically educated students manifest excellent academic performance, adequate practical skills and appropriate behaviours.

Ignatian Pedagogical Paradigm (IPP): It is a teaching and learning strategy rooted in the Jesuit education tradition and comprising five essential traits or components namely context, experience, reflection, action, and evaluation. It is also called Jesuit education or pedagogy.

Reflection: It is the use of memory, imagination to capture essential meaning of what is being studied. Teachers promote reflection by helping students to think critically about what they learn. They can use group discussions, debates, and personal reflection.

1.10 Chapter Summary

This introductory chapter has laid foundations for the rationale to conduct a study on the contribution of IPP to holistic education in private secondary schools in Kigali. Education is meant to engage people fully and help them discover their potential so that they can live a life that means something to them. However, today's fragmented world calls for a concerted effort in order to revamp educational systems so that they can be responsive to the needs of the learners thereby contributing to their holistic growth. In a special way, the chapter showed how the role of private institutions in rethinking and introducing new teaching and learning strategies such as IPP is much needed. The chapter has also indicated that through the constitutive elements of IPP namely context, experience, reflection, action, and evaluation, students can improve their knowledge in the cognitive, psychomotor and affective domains.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature review serves different purposes in research. It enables the researcher to determine studies that have already been done so as to avoid duplication; it helps the researcher to identify research strategies and instruments which have been found effective in analysing similar problems; it also helps in identifying gaps in knowledge as well as weaknesses in previous studies (Ogula, 2010). With literature review therefore, a researcher learns from the experiences of other researchers. As the researcher reads and analyses what has been researched and written about the areas of interest that researcher gathers information that may justify or validate the concerned research. This chapter reviews literature and previous studies related to the role that Ignatian Pedagogical Paradigm (IPP) plays in enhancing holistic education. It consists of two main parts namely: the review of related theories and the review of empirical studies and other related literature. However, in order to make an informed review, it is important to understand both the traits of holistic education and how various elements of IPP inform the process of teaching and learning. The chapter is organized in the following sub-headings: understanding holistic education, implication of IPP for the teaching and learning process, the critical review of related theories, the review of empirical studies and related literature, and the identification of various knowledge gaps in the studies. The review of empirical studies is organised according to seven research questions.

2.1.1 Understanding holistic education.

Holistic education is based on the premise that each person finds identity, meaning, and purpose in life through connections to the community, to the natural world, and to spiritual values such as compassion and peace (R. Miller, 2000). It focuses on the fullest possible development of the person, encouraging individuals to become the very best or finest they can be and enabling them to experience all they can from life and reach their goals (Forbes, 2003). To become a full person, “a growing child needs to realize, in addition to intellectual skills, physical, psychological, emotional, interpersonal, moral and spiritual potentials” (R. Miller, 2008, p. 5). Holistic education pursues unique goals.

The term ultimacy has been used to express the goal of education. Forbes (2003) uses the term to mean the highest concern, engagement or state of being that a human can aspire to. In the development process of a person, ultimacy can be a moment of life that is greatest but only rarely experienced by anyone, or as a phase of life that is common in the population but usually rare in any particular individual's life. Experiencing ultimacy is similar to what Robinson (2014) calls being in one's element. Robinson (2014) argues that education is meant to be a process in which we engage people in their fullness to give them a sense of who they are and what they are capable of so that they can live a life that means something to them. Living a meaningful life is being in one's element. Teachers must therefore assist students in discovering who they are and assist them in becoming who they are meant to be.

The kind of knowledge needed under holistic education is, according to Forbes (2003) both experiential and competence-oriented. On the one hand, experiential learning, as the claim goes, is an authentic way of acquiring knowledge. For example, reading a book about fishing is not the same as engaging or participating in actual fishing. Experiential knowledge is also unique on the basis of why that knowledge is acquired (Forbes, 2003). If the impulse to learn is from within the learner on the basis of interests or needs, pursuit of knowledge would be different from that arising on the basis of external motivation such as reward or fear of bad consequences. A student who pursues atmospheric sciences because of the availability of employment opportunities is different from a student whose motivation is to save the disintegrating planet plagued by global warming.

On the other hand, holistic knowledge is competence-oriented. It is the acquisition of procedures rather than facts or ideas. It contains procedures for engaging and constructing the world, it is intrinsically creative and tacitly acquired (Forbes, 2003). This competence can be manifested in the exercise of good judgment, free from destructive habits or and opinions (Forbes, 2003). This competence allows students to discover and refine values, to learn how to learn, and to eventually transform their society.

There are four essential characteristics of holistic education as outlined by Miller (1991). First, holistic education is concerned not just with developing human intellect or getting higher scores at tests and examination. It rather seeks to help students grow in all their dimensions, intellectual, physical, and emotional, and spiritual. Second, students, teachers and other adults in the community must create and engage in relationships that are

based on equality, respect, community, and shared values instead of authoritarian and top-down power relations. Third, holistic education is concerned with engaging in the real world based on students' experiences rather than mastering basic skills for standardized tests. Their curiosity and quest for personal meaning informs the process of teaching and learning. Fourth, holistic education enables students to critically examine and define their values within a personal, cultural, and political context. Students examine established ways of seeing things and this helps them identify and internalize their own views and values. Thus, any strategies that one might take to education students holistically must take into account those essential characteristics.

2.1.2 Implication of IPP for the teaching and learning process.

There are many distinguishing features of Jesuit education. The International Commission on the Apostolate of Jesuit Education—ICAJE (1994) has highlighted several characteristics of Jesuit education. Those that are relevant to this study include attention to the formation of the whole person within the human community, individual care and concern for each person, a religious dimension that permeates the entire education, a life-long openness to growth, value-orientation, excellence, and preparation for active life commitment in the service of others. However, those characteristics act as the vision of Jesuit education. In order to put the vision into practice, a practical guide has been prepared for teachers in the teaching and learning process in a classroom setting.

According to IPP, learning is a result of interplay between five elements namely context, experience, reflection, action, and evaluation of learning. Those five elements contribute to holistic education. The context or personal care and concern for individual are the hallmark of Jesuit education. It calls for individualized attention to the needs of the learners and a respect for their gifts, challenges and possibilities. It requires that teachers become as conversant as possible with the life experience of the learner (Jesuit Secondary Education Apostolate—JSEA, 1993). The context of the learner has different dimensions including academic context, personal context, community context, and natural or global context. The context therefore comprises previous learning experiences, academic institution atmosphere, family background, feelings and attitudes and values regarding the subject matter to be studied, socioeconomic, political and cultural climate. Teachers as well as other members of the learning community need to familiarise themselves with the world of the

learners and adapt teaching and learning to it. They should take personal care and concern for each student individually by for example listening to their complaints, and responding to their questions. A Consideration of students' context enables them to have real learning experiences and benefit from them.

Experience, in Ignatian tradition is used to describe any activity in which, in addition to a cognitive grasp of the matter being considered, some sensation of affective nature is registered by the student (JSEA, 1993). Thus, the whole person—mind, heart and will—should enter learning experience. The experience can be direct or vicarious. It is direct when one senses the object of knowledge through conversations, discussions, experiments, field trips, service projects and the likes. Vicarious experience comes through an intermediary such as reading a book or listening to a lecture (Dominuco, 2000). Direct experience is fuller and more engaging of the person. In order to involve students in the learning experience more fully, teachers are challenged to stimulate students' imagination and use of senses precisely so that students can enter the reality studied more fully through class visits, simulations, role playing, and audio-visual material. Students can also learn from experts in campfires, from the peers in discussions and group works, and from the larger community through community service and other activities rendered to the society.

Another fundamental element of IPP is reflection. With the help of teachers, foundations of learning how to learn is laid by engaging students in skills and techniques of reflection. With reflection, the memory, understanding, imagination and feelings are used “to capture the meaning and the essential value of what is being studied, to discover its relationship with other aspects of knowledge and human activity, and to appreciate its implications for the on-going search for truth and freedom” (Dominuco, 2000, p. 257). Students must consider what the material means to them individually and personally appropriate it, looking at the impacts it has on them and on the whole world thereby pushing them to move to action (Van Hise & Massey, 2010). Group discussions, group work, debates are some options that teachers can use to help students better understand what they learn. Such an understanding is of paramount importance when students have to decide actions to take following what they learnt because reflecting on experiences eventually leads to action.

Action describes how the learner's internal state—attitudes, priorities, commitments, habits, values, ideals, and growth—flow out into actions for others (Cantor, 2014). It is both

an internal human growth based on experience reflected upon and its external manifestation (JSEA, 1993). Action therefore involves two steps. First, in the light of students' cognitive understanding of the experience and inherent affections, the will is moved. Second, the meanings, attitudes, values which have been interiorized compel one to do something consistent with one's new convictions (JSEA, 1993). It is through their actions that students are able to transform the world into a better place to live or take direction towards that transformative goal. In the light of their changed convictions, students may decide to improve on their work, adjust or change their behaviours, or offer service to others.

The final component of IPP is evaluation. Unlike the common practice of reducing evaluation to measuring students' degree of mastery of knowledge and skills, for IPP evaluation includes but goes beyond academic achievement. It considers students' well-rounded growth. Teachers are attuned to the students' moral growth and maturation (Van Hise & Massey, 2010). Therefore, on top of quizzes, tests and examinations, teachers should know whether students are more caring, less biased, or more likely to serve others. Thus, periodic evaluation of their growth in attitudes, priorities, and actions consistent with being a person for others is essential (Dominuco, 2000). Techniques such as mentoring, review of students' journals, and students' self-evaluation can be helpful. Ignatian pedagogy insists that there is always a need to improve, to do more, to excel, a need for *magis* (Dominuco, 2000). In this sense learning is no longer seen as limited to classroom situations but extends outside the class and throughout a person's lifespan.

The IPP can contribute to holistic education because it calls for transformative learning experience—at the spiritual, intellectual and behavioural levels—that leads to full growth of the person leading to action in the service of others (ICAJE, 1994). It has the advantage of applying to all curricula because, as Dominuco (2000) puts it, it does not demand the addition of a single course but requires the infusion of new approaches in the way we teach existing courses. Any attempt to provide holistic education should start with the recognition that learners are whole persons and the whole is much greater than the sum its different parts. Yet, Noddings (2005) realized, even when educators recognize learners as whole persons, they tend to describe the whole in terms of collective parts and make sure that every part is somehow covered in the curriculum. For example, upon considering learners as moral beings, artistically inclined people whose physical fitness is declining, educators

provide character education programs, art classes, and physical education and nutrition classes respectively.

The consideration of learners as an assemblage of different parts has led some people to argue that schools are best organized to accomplish academic goals and that other institutions such as family and church should be charged with task of pursuing the physical, moral, social, emotional, spiritual, and aesthetic aims that are associated with the whole child (Noddings, 2005). Such an argument ignores the very concept of holism according to which learners are taken as whole and not compartmentalized parts. While maintaining the fragmented subjects in the current school systems, therefore, as (Noddings, 2005) argues, teachers can still stretch their subjects to meet the needs and interests of the whole child. This is what IPP promises to do by encouraging teachers to explore each course in a holistic way. Indeed, it is not impossible to address for example moral, social, emotional, and aesthetic questions in a science class.

2.2 Critical Review of Related Theories

There are many theories that can be used to analyse and explain patterns in holistic education. While some focus on the acquisition of (holistic) knowledge, others focus on the nature and orientation of learning. Four theories were examined in this study namely cognitive theory, transformational learning theory, experiential learning theory and gestalt theory.

2.2.1 Lonergan's theory of cognition.

Bernard Lonergan's (1992) cognitive theory explains how, by paying attention to the operations of the consciousness one obtains authentic knowledge. Our consciousness expands in a new dimension when from mere experiencing we make effort to understand what we have experienced. Morelli and Morelli (2003, p.488) noted that a new dimension emerges "when the content of our acts of understanding is regarded as, of itself, a mere bright idea and we endeavour to settle whether it is really so. A last dimension comes to the fore when judgment on the facts is followed by deliberation on what we are to do about them." Thus, the cognitive theory takes learning as a process that involves different stages.

Lonergan (1992) argues that the process of knowing happens at four levels of consciousness namely, the empirical level of experience, the intellectual level of understanding, the rational level of judging, and the responsible level of deciding and acting.

The theory holds that all operations of knowing occur by means of a dynamic intermeshing and recurrent pattern of experiencing, understanding, judging, and deciding (Streetman, 2015). Experience, which can be direct or indirect, is data collection without intentional or deliberate analysis. Experiences can include seeing, imagining, touching, and feeling. At this stage, one experiences data simply as it is (Dwight, 2012) and there is no knowledge acquired until those experiences start making sense.

At the second stage of understanding, one makes sense of the experiences. This action however remains purely intellectual. The individual at this stage asks questions about the data from experiences, what it is and explores possible answers to this question (Dwight, 2012). However, it is only when understanding is verified that knowing can occur. This happens at the stage of judging as one responds to the question, “*Is it so?*” (Streetman, 2015). If something is considered to be so with no dissonance with regard to what is known and that all questions about the subjects have been answered, unconditional knowledge is attained (Streetman, 2015). If there are still unanswered questions, the knowledge is conditional. However, wonders whether this unconditional knowledge can be acquired because human experiences has shown that there always unanswered questions about life.

Cognitional theory holds that in virtue of knowledge acquired, one must move to action. That is why once something is known, the next stage is deciding. It is at this stage, Streetman (2015, p.39) contends, that “the individual may act authentically, whereby unity of heart and mind are actualized, or inauthentically whereby dissonance exists between the individual’s heart and mind.” An authentic life is therefore a life guided by knowledge, provided that knowledge is itself authentic.

Lonergan’s cognitional theory is applicable to this research because it outlines stages that students can go through in the process of learning and explain how the knowledge acquired guide students to live authentic lives. This kind of knowledge is presumably holistic. The process starts with experiences which may have different dimensions; intellectual, physical, emotional, and spiritual. Next, understanding, judging and deciding follows. As teachers design teaching and learning experiences, they ensure students are authentically learning from those experiences. The theory however seems to be solely memory-oriented as it focuses on the operations of the mind and may not pay attention to emotional and physical development of the students.

2.2.2 Transformative learning theory.

Transformative Learning Theory (TLT), according to Howie and Bagnall (2013) is associated with Mezirow who developed the theory in 1978. Ever since, however, different aspects of the theory have been developed, refined, clarified and expanded. The theory is based on the principle that one's personal experience forms an integral part of the learning process. It holds that every person has a particular view of the world based on a set of paradigmatic assumptions that derive from the individual's upbringing, life experience, culture or education (Christie, Carey, Robertson, & Grainger, 2015). Individuals have difficulty changing because their worldviews become so ingrained that it takes a powerful human catalyst to shake them. Thus, for Mezirow (1991) transformative learning occurs when people engage in activities that cause them to have a different worldview from their own, leading them to modify or shift their meaning schema or mind-set. What is transformed is the meaning perspective which is a set of assumptions that guide the worldview.

Transformation in meaning perspective pushes people not only to see the world differently but also to see themselves differently. It involves a sort of paradigm shift that impacts future experiences because it changes that way individuals see themselves and the way they continue to learn and construe new meanings about the world (Mezirow, 1991). According to TLT, learning happens in three domains. First, instrumental domain involves an understanding of how things work. It is a task or problem-based learning. Second, communicative domain, involves relationship between people. This domain includes values, ideals, moral issues, concepts, feelings, reasoning and understanding. Third, emancipatory domain is a domain where people become critically reflective of their own assumptions thereby triggering transformation. Teachers must therefore endeavour to design instructional practices in those three domains of learning.

In order to bring about transformational learning, three elements are necessary: disorienting dilemmas, critical reflection and rational discourse. Experiencing of one of these elements or a combination of them leads transformation. A dilemma is a dilemma such as a life threatening event that causes significant level of disturbance in a person (Mezirow, 1991). Dilemmas can also be various experiences, actions or memories that move us emotionally, mentally, spiritually or socially. People involved in dilemmas examine and

reflect on or question their assumptions and beliefs. By doing so, they engage in critical reflection.

Critical reflection is a process of intentionally construing meaning through critical reflection and examination of one's beliefs, assumptions. Mezirow (2000) describes three frames of critical reflection. First, content reflection happens when one reflects on actual experience; second, process reflection happens when one processes what one is going to do with that experience; third, premise reflection is more complex and allows one to compare and contrast the new experience with previously held assumptions and long-held values and beliefs, debating whether new experiences lead to abandonment of held beliefs. This leads to rational discourse.

Rational or reflective discourse is a process of analysing with other people, in a logical and objective manner personally and socially held beliefs and assumptions (Mezirow, 1991). Once the experience has been objectively analysed and categorized, it triggers a shift in meaning perspective and this calls a course of action. The action taken is an expression of transformation and, as Mezirow (1991) puts it, the action can be epochal or immediate, delayed or incremental, or simply a confirmation of previously held beliefs. The process of transformation is long and Mezirow listed a number of steps that one must go through to experience real transformation. As outlined by Christie et al. (2015) the transformation process involves disorienting dilemma, self-examination, sense of alienation, relating discontent to others, explaining options of new behaviour, Building confidence in new ways, planning a course of action, knowledge to implement plans, experimenting with new roles, and reintegration.

Transformative learning theory is applicable to this study because holistic education journey is essentially a journey of transformation and Mezirow (1991) clearly explained how such transformation can happen through disorienting dilemmas, critical reflection and rational discourse. J. P Miller (2007) frames holistic education within the context of transformation arguing that the core motto of holistic education is to seek transformation and the continuing growth of the individual and society. However, the theory falls short because it focuses on the process of individuals' minds rather than seeing learning as situated; it focuses on production of knowledge rather than action (Smith, 2010). In addition, not all

learning is transformative and not every transformation is positive. The theory also seems to hold that students whose knowledge base is based on less experience are worse off.

2.2.3 Experiential learning theory.

Experiential Learning Theory (ELT) was developed by David Kolb in 1984. Drawing from the works of prominent 20th century scholars such as John Dewey and Paulo Freire who gave experience a central role in the theories of learning, Kolb developed a holistic model of the process of learning from experiences. Kolb (1984) argues that learning is a process whereby knowledge is created through the transformation of experience. Knowledge is a result of grasping and transforming experience. There are four steps or modes in the experiential learning cycle. Figure 3 captures how the four modes interact with learning styles.

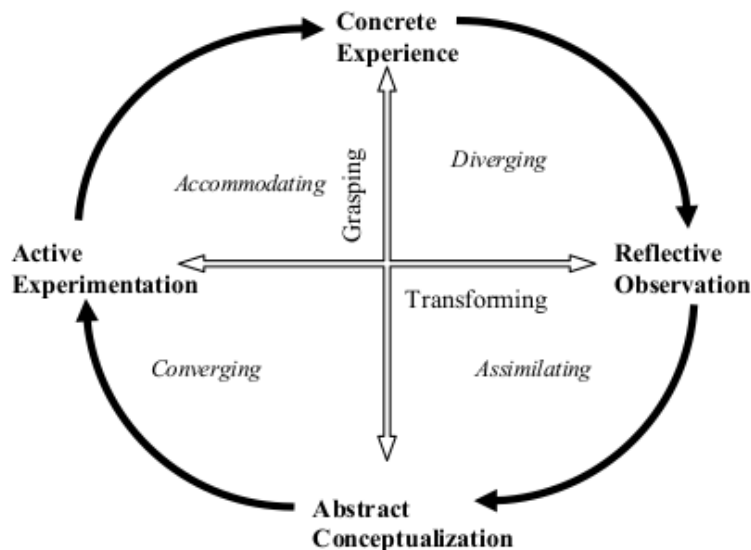


Figure 3. Experiential Learning Cycle

(Source: Kolb & Kolb, 2009, p. 44)

The ELT describes, as shown in Figure 3, two dialectically related modes of grasping experience and two dialectically related modes of transforming experience. The two dual dialectics are concrete experience (CE) paired with abstract conceptualization (AC), and reflective observation (RO) paired with active experimentation (AE). The four modes involve full involvement or the new-here-and-now experiences, observing and reflecting on experiences, creating concepts that integrate observations into logically sound theories, and using those theories to make decisions and solve problems (Laird, 2003). Thus, experiential

learning involves action, reflection, conceptualization, and application. Immediate or concrete experiences are the basis for observations and reflections. These reflections are assimilated and distilled into abstract concepts from which new implications for action can be drawn. Those implications can serve as guide for new experiences and the learning cycle restarts. According to the theory, people prefer a particular learning mode because of their heredity, life experience and environmental demands (Armstrong & Fukami, 2009). Thus, the choice of learning mode is due to different factors and may vary over time depending on ones' particular circumstances.

The ELT acknowledges that people have different learning styles depending on individual differences in learning based on their preference for using different phases of the learning cycle. Those styles are *diverging, assimilating, converging and accommodating* as explained by Armstrong and Fukami (2009). Firstly, people with diverging style have CE and RO as dominant learning abilities. They are best at viewing concrete situations from many different points of view, performing better in situations that call for generation of ideas, such as a brainstorming session. Secondly, individuals with an assimilating style have AC and RO as dominant learning abilities. They are best at understanding a wide range of information and putting into concise, logical form, focusing more on ideas and abstract concepts. Third, the converging types have AC and AE as dominant learning abilities. They are best at finding practical uses for ideas and theories; they have the ability to solve problems and make decisions based on finding solutions to questions and problems. Lastly, accommodating type of people has CE and AE as dominant learning abilities. They learn primarily from hands-on experience. They enjoy carrying out plans and involving in new and challenging experiences.

Experiential learning theory is applicable to this study because it outlines the process of acquiring knowledge. The ELT is a holistic theory that defines learning as a four-stage process of experiencing, observing and reflecting on experiences, creating concepts, and doing. The model, Tennant (1997) argues, provides an excellent framework for planning teaching and learning activities and it can be used as a guide for understanding learning difficulties, vocational counselling, and academic advising. However, the theory seems to focus on processes in individuals' minds rather than seeing learning as situated, on the production of knowledge rather than action (Smith, 2010). The theory does not apply to all

situations and does not take into account different factors that influence teaching and learning.

2.2.4 Gestalt theory.

Gestalt theory of learning was introduced by Max Wertheimer, Kurt Koffka, and Wolfgang Kohler in 1922. However, other theorists have worked on original Gestalt theory giving it form and shape. The main emphasis of Gestalt theory is on grouping. It holds that the whole of anything is greater than the sum of its parts and that learning is more than just invoking mechanical responses from students (Pappas, 2014). Gestaltists see a human as an integrated and dynamic whole or organism who configures the dominant need at a particular moment and attempts to meet this need by contacting the environment with some sensorimotor behavior (Hideo, 1999). Like transformational learning, Gestalt theory maintains that learners' experiences and perceptions have a significant influence on how they learn.

The theory holds that there are certain laws that guide the organization of learning through the examination of students' lived experiences and their consciousness. First, the law of closure stipulates that whenever the mind sees only part of a picture, it automatically attempts to create a complete picture based on past experiences and already acquired knowledge (Todorovic, 2008). This does not apply to images alone but also to thoughts, feeling and sounds. Second, the law of proximity holds that the human brain maps elements of learning that are presented close to each other as whole rather than separate parts (Pappas, 2014). This is the case of reading or music class where letters and words or musical notes make no sense when standing alone but make harmony when mapped together. Third, the law of similarity states that learning is facilitated when elements that are alike are linked together and contrasted with those that present different (Pappas, 2014). This helps the development of critical thinking among learners. According to the Gestalt theory however, when observing things around, the eye usually ignores space or holes and, instead, sees whole objects. An object is differentiated from its surrounding area and the balancing of the two makes the object clearer. This organizational law is called figure-ground effect. And as new ideas and thoughts are acquired, the brain tends to make connections or traces that represent the links occurring between conceptions, ideas, and images. This is done according to the law called trace theory.

The Gestalt theory emphasizes the use of higher order of thinking as students are encouraged to search for underlying similarities that link concepts together into a cohesive whole. Teaching strategies are therefore used to present information as whole rather than fragmented parts. The theory is relevant to this study because by taking students as whole and emphasizing the comprehension of concepts in their entirety rather than broken up into parts, it encourage instruction designers to be guided by enumerated organizational laws. Unfortunately the theory focuses on operations of the mind and gives little consideration for practical skills.

The four reviewed theories related to holistic education and have their contribution to make as far as the understanding of holistic education is concerned. Common to all theories is that learning starts with experience and that knowledge acquired leads to action. Thus, they emphasise that knowledge, and indeed any teaching and learning process, should lead to transformation. However, none of the theories reviewed clearly gave details of what holistic education is, its indicators and how it can be provided. This is why it was necessary to anchor this study on holistic theory of knowledge and learning in an examination of how IPP contribute to holistic education.

2.3 Review of Empirical Studies

This section reviews empirical studies in relation to how IPP contributes to holistic education. It is concerned with how the teachers' consideration of the context influences holistic education; how students' learning experiences influence holistic education; how students' reflection stimulates holistic learning; the extent to which students' actions motivate holistic education; and the effect of evaluation on holistic education. Challenges in implementing IPP have been examined and strategies to enhance the implementation of IPP for holistic development were identified. Where available, studies were viewed at global, regional, and local levels. The review of empirical studies is also informed and supported by available conceptual literature on IPP and holistic education in general.

2.3.1 Ways in which a Consideration of Students' Context Influences Holistic Education

A study was carried by Mouraz and Leite (2013) exploring the curriculum contextualization in Portuguese history classes. It was based on an assumption that putting knowledge in context produces curriculum meaning for students. Cultural contextualization was represented by teaching practices related to different dimensions including traditional

and cultural issues, and local issues and sources. The data collected focused on teachers' learning practice records from four history teachers from four schools in the city of Porto, Portugal. The study found that, while the most important objective that justified contextualization practices was to increase pupils' motivation and active participation, achievement of students was always (in each dimension) considered good or very good, as it resulted from contextualizing teaching practices. Contextualisation according to Mouraz and Leite (2015) is therefore a prerequisite in addressing the content and organisation of activities that are to be undertaken in the classroom. Regrettably, teachers indicated that they did not often implement contextualization practices. However, the study used a small sample of teachers. The current study used bigger samples involving administrators, teachers and students to examine whether contextualization practices exist in private secondary schools in Kigali.

In order to address the problems that confronts students in their diversity and their diverse needs, Garin, Reyes, Domantay and Rosals (2017) argued that teachers need to be conscious of students' socio-cultural backgrounds so as to benefits everyone in the classroom. Garin et al. (2017) conducted a study on the effects of teaching statistics using contextualized and localized or indigenized information on the performance of students. This experimental study included two classes of students enrolled in in Basic Statistics during the School Year 2015-1016 at the Pangasinan State University, Philippines. One class (the experimental group) was exposed to contextualized and localized teaching while the other (control group) was exposed to contextualised but not localised teaching. Contextualised teaching has been understood as teaching anchored on real life experience and within the context of students' lives while localisation maximizes materials, activities, events, and issues that are readily available in the local environment.

In the study, the independent samples t-test and analysis of covariance were used to compare the pre-test and post-test performance of the two groups. The statistics test included both theoretical test and empirical test. The results of the study suggested that there was no significant different between the pre-tests performance on the theoretical type of test when they are grouped according to the said teaching strategies. However, in the post-test, concerning the empirical type of test the students exposed to contextualized and localized teaching performed better than the students who were not exposed to localized teaching. The

study found that, generally, the group of students exposed to contextualized and localized teaching performed better than the group of students exposed to contextualized and but not localized teaching. Thus, the study recommended, teachers should use localized examples, exercises, and illustrations in teaching in order to improve the student performance.

It can be seen from Garin et al.'s (2017) that localized teaching has yielded positive results. However, contextualised and localized teachings are not mutually exclusive. In fact, when they are combined they can yield better results. Teachers are required not only to use authentic and real-life teaching materials, but also they should use examples that are drawn from the backgrounds of students. The study however, concentrated on the Basic Statistics class and did not explore how contextualised and localised teaching is carried in other courses. In addition, the study was carried out among university students in Philippines which is culturally different from Rwanda. There was therefore need to find out how teachers in private secondary schools in Rwanda consider students' contexts in their teaching and the effect that that contextualisation has on students' growth.

A study was conducted in Nepal, South Asia, by Dhoaj (2013). The study explored the impact of prevailing cultural values and gender discourses in schooling of boys and girls together with intra-household allocation from both children's and adults' perspectives. Given that in Nepal a patriarchal system of social relations predominated, where a patriarchal system of social relations predominates, parental preference inclines to the male child and is reflected in the socio-cultural practices, status and economic potentiality associated. Such preference tends to negatively influence the girls' educational right, welfare, health and survival opportunities (Dhoaj, 2013). The study also examined the implication of those socio-cultural perspective of child work combined with schooling in rural parts of Nepal. The study included 20 children aged between 12 and 16, 5 parents, 5 teachers. Observation, interview, essay writing and focus group discussion were used to collect data which was analysed qualitatively.

The study found that young girls were more disadvantaged than their male counterparts. These disadvantages encompass all aspects of their life including intra-household resource distribution in terms of health and nutrition, pocket money, play and entertainment. In terms of schooling, girls were discriminated against in terms of quality education. The study noted that while all children (boys and girls) attended school, their discrimination was magnified in

terms of the schools they attended and the quality of education they received. For example, it was found that boys attended boarding schools that of superior quality than government schools where most girls enrolled. As the study results suggest, “gender discrimination against girls in schooling was mainly affected by the sociocultural factors such as pro-male bias, household work burden, unequal access and expected returns in the labor market, educational costs, accessibility and proximity to the school and religious factors” (p. iii).

It can be seen from the study that in Nepal female children are ignored and poorly granted the same educational opportunities as a result of the patriarchal nature of Nepalese society. It is clear here that the socio-cultural background of students was used to frustrate their right to quality education. Dhoaj’s (2013) study is therefore an example of how students’ context or background can be used against them. However, the study was carried in an Asian context and did not explore the day-to-day students and teacher interactions. It was important to know whether students in private secondary schools in Kigali report similar discrimination experiences.

Another study was conducted at a middle school in a rural South Georgia by Paulk, Martinez and Lambeth in 2014. The study examined the relationship between culturally relevant teaching and science achievement in Seventh Grade African American Students when compared to standard-based instruction. Standard-based instruction focuses on the concept of retention while culturally relevant instruction is a strategy that is attentive to different cultures in the classroom. The study was triggered by the fact that many American teachers viewed culture as irrelevant to education. The study also examined whether the use of culturally relevant teaching improved students’ attitudes towards science as well as their participation within the science classroom.

The results of the study suggested that students taught using culturally relevant teaching strategy made higher gains. It was noted that culturally relevant teaching increased scores in science approximately 6% thereby improving academic achievement (Paulk et al., 2014). Students maintained a positive attitude towards science in culturally relevant groups while those in standard-based groups decreased. Culturally relevant teaching also improved the classroom behaviour of African American students compared to standards-based instruction. Thus, the study concluded, culturally relevant teaching is more effective in increasing students’ achievement and attitude towards science. This sensitivity to culture

“helps students develop the necessary skills and aids teachers that use it to create a social relationship that with their students to promote a safe and nurturing environment inclusive to learning” (p.55). It is therefore important that teachers be sensitive to the cultural backgrounds of students in order to increase students’ educational attainment. Paulk et al.’s (2014) study, however, was conducted in a culturally diverse society of the American culture focusing on science. It was important to find out whether sensitivity to students’ background in Rwanda leads to improvement in educational attainment especially in relation to their holistic growth.

A study examining the contribution of Franciscan Sisters of St Joseph, Asumbi, to education in Kenya was conducted by Akoth (2013). The study targeted people working with Franciscan sisters of St Joseph in their various educational centres, the neutral people who knew the Sisters’ work, former students of those centres and the Franciscan Sisters of St Joseph involved in educational institutions in Kenya. Data were collected through interview, questionnaires, observations, focus group discussions, written literature and storytelling. The study was analysed both qualitatively and quantitatively.

The study found that the Franciscan Sisters of St Joseph Asumbi had substantially contributed to education in Kenya by participating in actual teaching, addressing relevant educational issues, being conversant with the adverse challenges faced by the youth and attempting to address them. They contributed also by giving holistic education to students, paying particular attention to their girl child, and economically, socially, and educationally empowering Kenyan citizens for life. The study highlighted the need to consider different challenges faced by students as they come to school for the improvement of quality education. In other words, students’ background matters for quality education. Unfortunately, the study focused on girl schools and was conducted in Kenya. A focus on mixed schools would have possibly revealed more challenges which could necessitate renewed efforts in quality education improvement. The current study involved mixed schools in the context of Rwanda to examine the contribution of IPP to holistic education.

Additionally, Churu and Mwaura (2012) conducted a historical study examining the contribution of the Catholic Church in Kenya in the provision of holistic education for development. The study attempted to analyse critically the success of the mission of the Catholic Church to education Kenyan students holistically. Data were collected from

students, teachers, parents, and clergy using questionnaires, observation, interviews and focus group discussions. The researchers stated that the concern of the Catholic Church in education and in schools has always been to facilitate the realization of fullness of life of the members of the school. This mission was a holistic education. However, while admiring what the Catholic Church has achieved in educating Africans, the study revealed that the Church's primary mission was evangelization and has failed to mediate the values of the Church's missionary propaganda and African families and communities who had their own vision for their children's education. According to the Churu and Mwaura (2012), the Church failed to take care of the needs for development of African children by weakening their cultures and ignoring their aspirations. Failure to consider the social and cultural context can therefore hinder holistic education. The study recommended a focus on clarity of what constitutes fullness of life, in a discerned African Christian sense, with due mindfulness of the realities of the times. Since the schools examined in the current study are catholic schools, it was important to find out whether social and cultural context of students is taken into consideration in the process of teaching and learning in the case of schools in Rwanda.

Students' general background and entry level to the curriculum, Onyango (2012) highlighted, is usually an educator's initial target for individualized instruction and assistance. The researcher contended that students show no growth if their background is neglected by the school. Onyango's study which focused on helping learners, most challenged socially and economically, in Nairobi concluded that the socioeconomic background is an important factor in academic achievement. Factors such as income, parents' education, social class, marginalization and poverty have a remarkable impact on learners' achievement directly or indirectly. Thus, as Onyango (2012) put it, being aware of the vast array of needs of learners which might hamper their academic achievement at school is a vital step in responding to learners' situations. Teachers should take into account students' background both as they design instruction and as they facilitate learning. Unfortunately, Onyango's study was limited to academic achievement. A look at how teachers' consideration of students' background also influences physical, emotional and spiritual growth was necessary.

In a paper exploring the role of teachers as agents of change, Rubagiza, Umutoni and Kaleeba (2016) examined how teachers are positioned to promote peace building and social

cohesion in Rwanda in the aftermath of the 1994 genocide against the Tutsi. The paper drew on data collected for a broader study researching the role of teachers in peace building in post-conflicts contexts of Rwanda and South Africa. Data was gathered from teachers in 14 case study schools and teacher training institutions in all the five provinces of Rwanda. The findings of the study revealed that although most teachers showed agency and had a sense of responsibility towards promoting peace building and social cohesion they still faced major challenges in everyday practice and social life that did not put them at peace. Most teachers in the study observed that they could not offer what they did not have. The study concluded that “for teachers to play a role in sustainable peace and social cohesion largely depends on the economic, social, cultural and political contexts in which teachers operate” (p. 221). Thus, for peace building and social cohesion as well as for holistic education, teachers must be aware of the different contexts that affect their lives so that they can be able to respond appropriately to the needs of their students by building caring and trusting relationship with them. However, while Rubagiza et al.’s (2016) study explored how teachers’ context matters for peace-building and social cohesion, this study focused on how that context matters for holistic education of students.

2.3.2 The Influence of Teaching and Learning Experiences on Holistic Education

Experiential learning, according to Association for Experiential Education (2017), involves educators who purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people’s capacity to contribute to their communities. Ignatian pedagogy holds that students learn better when they experience what they learn. Wozencroft, Pate and Griffiths (2015) have conducted a study involving undergraduates and graduate students who took part in the University of Tennessee’s Recreation and Sport Management Program featuring service learning. The researchers examined the impact of service learning on college students’ attitudes toward people with disabilities. Students were working directly with people with disabilities in a therapeutic camp environment.

Students in Wozencroft et al.’s (2015) study showed a change in attitude based on the classroom instruction as well as a change in attitude when time in the classroom was combined with the hands-on learning component. Although it was helpful in changing attitudes, hands-on learning experiences without a connected instructional element may not

be adequate for changing attitudes toward people with disabilities, the study revealed. Conversely, classroom instruction alone was also not enough to shift attitudes. Thus, the study concluded, direct experiences such as camping may trigger a change in attitudes. It is therefore important to design educational instructions that allow students to have hands-on experiences. However, the study focused on university students rather than secondary school students. It was important to examine whether secondary school students benefit from direct experiences organized for holistic growth.

Another longitudinal study by Caulfield and Woods (2013) explored the merit of experiential learning. The study was based on an assumption that effective learning takes place through experience. The study examined whether experiential learning, when designed specifically to heighten awareness of a significant social problem, evoke socially responsible behaviour specific to that problem in the long run. Data was collected from 25 voluntary graduate students or alumni previously enrolled in one of three applied social science elective classes offered in two degree programs at a highly ranked university in Midwest, USA. The classes were designed to include a significant experiential learning.

The findings of the study showed that 94.7% of participants who reported a high impact learning experience when participating in experiential learning while enrolled in a graduate class also reported engaging in socially responsible behaviour because of that learning experience. In some instances, the socially responsible behaviour continued for as long as three years after the class had ended. Therefore, experiential learning can lead to socially responsible behaviour. The study concluded that “experiential learning exposes learners to authentic social experiences that are more likely to engage them in future socially responsible behaviours, transforming them into agents of positive social change within their communities,” (Caulfield & Woods, 2013, p. 46). Thus, providing opportunities for students to engage in hands-on experiences can instil in them long-lasting values, transforming them into social advocates for change specific to the social problem they examined. However, Caulfield and Woods’ study was in a different context from the current study. It was important to find out whether private secondary school students in Rwanda engage in hands-on experiences and how those experiences affect them.

In Scotland, a systematic review was commissioned by Learning and Teaching Scotland in order to make recommendations to Scottish schools in promoting creativity within

curriculum excellence. A team of six reviewers, Davies, Jindal-Snape, Collier, Digby, Hay and Howe (2013) reviewed several pieces of educational research, policy and professional literature published in the period 2005-2011 and relating to creative learning environments in schools. Davies et al. (2013) found 58 empirical studies relating to the theme. Their findings pointed to flexibility in the physical and pedagogical environment, learners having control of their learning and ownership of creativity, varied physical environment at school and elsewhere such as museums, flexible used of time, and allowing learners to work at their own pace without pressure as common features that promote creativity in schools. An important feature of pedagogical environment that promotes creativity is “the nature of relationship between teachers and learners including high expectations, mutual respect, modelling of creative attitudes, flexibility and dialogue” (Davies et al., p. 88). There was also reasonable evidence to suggest an impact of creative learning environments on learners’ academic achievement; increased confidence and resilience; enhanced motivation and engagement; development of social, emotional, and thinking skills; and improved school attendance. Thus, as the review has shown, teaching and learning experiences that promote creativity also contribute to various aspects of students’ growth. Studies reviewed however did not focus holistic education as the current study endeavoured to do.

A study was conducted at the Canadian Memorial Chiropractic College by Starmer, Duquette and Howard (2015). The purpose of the study was to explore participatory evidence-based teaching methods in health science course to establish if a relationship exists between the level of students’ participation, course performance, and level of demonstrated learning. In the study, five 2-hour lectures were delivered over an 8-week period at the beginning of the academic year and 2 lab hours towards the end of the academic year. An evaluation plan was implemented in which 15% of the total grade was awarded for class participation. Marks were awarded for participation either in class, via an electronic audience response system or by submitting an assignment related to the session content within two weeks of each session not attended. A sample of 185 students was selected to participate in the study. To calculate the relationship between participation and performance, the sample was divided into two groups according to their level of participation (100% or less) and compared using independent samples t-test. In order to evaluate the relationship between the type of participation and the performance, the group that performed 100% was divided into two

small groups one consisting of students who participated entirely in class and the other consisting of students who participated using a mixture of the in-class and assignment methods.

The result of the study suggested that as students' participation decreased, so too did their performance while the type of performance did not affect performance. Students who participated 100% of the time scored 6.1 % higher on average than students with less than 100% participation while no significant difference was observed between students' scores based on the type of participation (Starmer, et al., 2015). Thus, the study concluded, higher levels of students' participation, regardless of whether they were in class or outside of the class, related positively to the exam performance and the achievement of higher levels of learning. "Seeking effective ways by which learners can increase active participation and engagement with the course learning may help learners develop a deeper understanding of complex curriculum content"(p. 135). From the study, one sees that students' participation can increase their educational attainment. Therefore, teachers should endeavour to promote students' active participation in the teaching and learning process. Starmer et al.'s (2015) study focused on students at tertiary education level. There was need to examine whether teachers in secondary schools also promote students' participation.

In another study, Mahgoub and Alawad (2014) explored the relationship between fieldtrips and the potential of those visits to students' creative thinking and practices in art education. The study sample consisted of 60 female students in the third level Rofaidah basic school level of African Council schools in Khartoum, Sudan. Using descriptive, analytical and experimental methods, the researchers examined the benefits of fieldtrips to natural and industrial environments to stimulate students' creativity and practices in art tasks. After experiencing two fieldtrips to the desert and museum, the experimental group's scores on ne tasks undertaken were significantly higher in comparison to the control group with $p = 0.002$ which was less than 0.05 significance level used for the study. The study concluded that, "field trips to natural and industrial locations were a beneficial learning aid and a means of fostering students' creativity and practices in art education" (Mahgoob & Alawad, 2014, p. 50). The researchers added that a fieldtrip can motivate and enrich students' learning opportunities as they experience the natural environment which can in turn impart inspiration and enhance students' creativity, motivation, and attitude towards the subject of art.

From the study, it can be observed that fieldtrips or study tours are crucial in enhancing learning. Teachers must therefore include fieldtrips in their design of instructions. However, Mahgoub and Alawad's study was set in an environment different from Rwanda's and did not explore fieldtrips in relation to how they impact holistic growth of students. It was important therefore to examine whether students in private secondary schools in Kigali have opportunities for and benefit from fieldtrips and whether those experiences contribute to holistic education.

In Rwanda, an experimental study was conducted by Andala and Ng'umbi (2016) to test the relationship between teaching methods and academic performance at universities in Rwanda. The study compared three teaching methods namely group discussions and interactive lectures as treatments or experimental group and traditional lecture as control group. A sample of 242 Master of Business Administration students from business statistics classes were selected from Mt. Kenya and Jomo Kenyatta university campuses in Kigali. Three topics from the course outline were chosen for the study. Three semesters were used to teach each of the groups using discussion, interactive lecture, and traditional lecture respectively. At the completion of the teaching period, students in three groups were tested in the chosen topic area as a way of conducting summative evaluation with two summative evaluations in between to get average scores. A comparison of mean scores was then done using analysis of variance to determine whether there were any significant differences in students' performance between the three teaching methods.

The results of the study showed that there were significant variations in mean scores of the three groups, $F(2,237) = 7.944$, $p < 0.001$ at 95% confidence level. Further analysis of the differences indicated that group discussion was the most superior method followed by interactive lecture while the least beneficial method was the traditional lecture (Andala & Ng'umbi, 2016). Based on the findings, the study concluded that "even in the university teaching and learning just like in all the other levels, both the discussion and the interactive lecture methods of teaching could be used to improve students' performance in the course units." Thus, while teachers may use a variety of teaching and learning methods, they must chose or combine those methods in a way that enhance students' participation and promote students' engagement. As the study recommended, teachers need to change their instruction approaches to be more student-centred to make a positive change in students' attitude

towards teaching and learning. However, the study targeted university students and focused on academic performance alone rather than holistic education for secondary school students. It was important to find out whether private secondary schools teachers use instructional approaches that promote students' participation for their holistic growth.

2.3.3 The Role of Students' Reflection in Stimulating Holistic Education

Reflection in Ignatian pedagogy is formative. "It forms the conscience of the learners, their beliefs, values, attitudes, and the entire way of thinking in such a manner that they are led to move beyond knowing, to undertake action" (JSEA, 1993). In a study conducted in U.S.A, Celio, Durlak and Dymnrcki (2011) found that reflection provides transformative link between action of serving and idea of learning. The study pointed out that reflection increased confidence and engagement in school, created civic knowledge and social responsibility among students. The American society however might favour reflective learning than the Rwandan society. It is important to know whether teachers in private schools in Kigali promote critical thinking in the teaching and learning process.

Another school was conducted at Coffman Middle School in Lawrenceburg, Tennessee by Green (2012) concerning the effects of classroom discussions on students' performance and confidence in the science classroom. The students were introduced to teaching strategies that required them to participate in teacher-led and student-led discussions during and eight week period. Those discussions occurred before, during and after new science topics were introduced in the class. In the study, students were observed during five different class discussions. Data were collected from 21 students using pre-assessments, and post-assessments. The classroom discussions were evaluated based on students' performance and students' confidence with the use of questionnaires, interviews, rubrics, and tests. The results from all the data collection tools were used as comparisons to determine student performance and to determine if student confidence increased during the treatment period.

The study results suggested that "even though the results of the quizzes and tests did not give a clear insight into how well the discussions helped performance, many students stated that the discussions helped them in their learning and understanding of particular topics" (Green, 2012, p. 27). Students also showed higher confidence in their public speaking skills and in their knowledge of science topics. For example, by the end of discussion five, most students had become more willing to speak up about their day's topics and felt more comfortable sharing their

ideas in front of the class. They were respectful to the learning community and were accountable for their own thinking. Thus, the study concluded, class discussions can be used as a strategy to engage students to be active participants in their learning of science topics while also allowing them to demonstrate oral speaking skills in a respectful learning environment. The study however involved a small sample of 21 students and concentrated on the teaching of science. Bigger samples would have yielded better confidence in the results. Using bigger samples, it was important to find out whether and how students in private secondary schools in Kigali benefited from discussions forums designed by the teacher.

At the University of Girona, Spain, a study was conducted by Colomer, Pallisera, Fullana, Burriel and Fernandez in 2013. The purpose of the study was to obtain students' views on the benefits, obstacles and limitations of incorporating reflecting learning methodologies into class and activity design. In the study, reflective learning was understood as a process that leads to reflection on all sources of knowledge that may contribute to understanding a situation or an experience (Colomer et al., 2013). Lecturers in four different fields employed different methodologies to promote reflective learning in their students. A total sample of 162 students studying four different degree courses (social education, environmental sciences, nursing and psychology) completed a self-reported reflective learning questionnaire. The questionnaire made of Likert Scale and open-ended items was designed to obtain students' assessments of various aspects of methodologies. A comparison was then made between the scores of the four groups.

The results of the study suggested that there were significant differences between groups' mean ratings while an overlap existed on few others. Based on the results of the study, the researchers concluded that students generally rated positively the reflective methodologies used by lecturers. The study provided data to suggest that reflective learning methodology helps students become more aware of the learning process; it encourages critical thinking and analysis of their own capabilities. It also helps students identify their own learning needs and become more aware of what their learning may be worth to them in the future (Colomer et al., 2013). It can be seen from the study that reflection in teaching and learning is of crucial role in not only promoting independent learning but also in creating a sense of responsibility in students for their own learning. The awareness of students own potential can also help in the development of appropriate attitudes and values thereby

contributing to holistic education. Unfortunately, the study focused on students in higher education. It was important to find out whether teachers in private secondary schools in Kigali facilitate the development of reflection in the students they teach.

Another research was carried out in Kisumu East District, Kenya concerning the role of teaching Christian religious education to the development of critical thinking. Kowino, Agak and Kochung (2012) based their study on the contention that Kenyan students' moral standing and general conduct in the wide society reflected incompetence in critical thinking. Their concern was to establish whether aspects of critical thinking or reflection skills are used by teachers in their instructional practices in Christian Religious Education (CRE). The study used a graphic observation rating scale, a learner's critical thinking achievement test, and interview and document analysis guide to collect data from 16 teachers and 343 students. The study results showed that teachers rarely facilitated critical thinking skills in order to enable students make accurate moral decisions. Further, the study revealed, the curriculum and the syllabus did not provide adequate guide to teachers on critical thinking skills to be facilitated during the implementation of CRE curriculum. The study however focused on one subject of CRE. Reflection should be promoted not just in one subject but in all subjects for holistic education to take roots. The current study inquired how this reflection promotes holistic growth.

Reflection in the teaching and learning process can also enhance performance. In a study exploring the influence of learner reflection on academic performance of Kenyan secondary students, Ndiewo, Raburu and Aloka's (2016) collected data from 387 students and 12 form-four class teachers using questionnaires and interviews. Qualitative data was analysed using thematic analysis while Pearson product moment correlation was used to determine the relationship between learner reflection and academic performance. The results of the study suggested that there was a significant relationship between learner reflection and academic performance and that the contribution of learner's reflection to academic performance was significant, $r = .17$, $p < .05$ with the learner reflection predicting 40% of variations in academic performance. The study concluded that students who had higher levels of reflection performed better in academic work than those with lower levels of learner reflection. Teachers who engage students in deeper reflection are therefore likely to improve performance of students. However, academic performance is only one aspect of holistic

education. The current study explored how such reflection not only contribute to academic performance but also informs students' actions and impact their overall growth.

Reflection is considered the highest intellectual activity in human interaction and enables learners to engage in the process of making meaningful decisions (Howie, 2011). In Rwanda, a study concerning the state of critical thinking at Rwandan public universities was carried out by Schendel (2015). The study was based on the assumption that a university education encourages the ability to think critically about problems and to use evidence when making decisions. The results of the study were discouraging because, not only was the critical thinking ability low but also Rwandan students have not substantially improved in their critical thinking ability during their time at the university. A cross-sectional analysis of student scores indicated no statistically significant difference between the demonstrated critical thinking ability of the first and fourth-year participants in the study. The study implied that if critical thinking ability was low or did not improve at higher education level, the situation could be worse at secondary level and this has adverse impact on authentic learning. There was therefore a need to ascertain whether students in private secondary schools are helped to develop their critical thinking abilities.

2.3.4 The Extent to which Students' Actions Motivate Holistic Education

A study conducted in Bangalore by Shobha and Kala (2015) to understand the impact of value education as a means of youth empowerment found that exposure gained by students through the value-education workshops have helped students to understand the value of discipline and moral uprightness. They have developed a greater team spirit, enhanced their levels of confidence, improved the power of concentration and built better interpersonal relationships. This has helped them develop into sensitive human beings and equipped them to effectively face the challenges of life. They have enormously gained through these enriching experiences and were empowered to confront the uncertainties of the dynamic environment with clarity, courage and composure.

It is clear that value-education has caused change in behaviour and action as demonstrated by the study. However, the context the study is culturally different from Rwanda's and deals with students in higher education. It was therefore worth exploring whether students in private secondary schools in Kigali take action following what they have

learned, and whether they record a change in attitude, understanding, and behaviour as a result of courses they undertake.

In order to assess the transformative impact of environmental education, Mukoni (2013) carried out a study in one of the largest city in the central province of Zimbabwe. Mukoni analysed the role of learners and teachers in the development and maintenance of school grounds, bringing about awareness to other members of the school community as well as the role of pupils and teachers in the community as indicators of transformative social change. A total of 100 teachers participated in the study and the questionnaire was used as the main instrument of data collection. The study results suggested that what was going on in the schools under the guise of environmental education was a mere knowledge acquisition about environmental risks and concerns or the ‘greening’ of the curriculum which takes more of a factual stance of environmental education at the expense of action competence. Environmental education did not lead to transformation of communities, pupils and teachers as shown by their limited action in solving practical environmental problems in the community. Education should lead to action. Yet, Mukoni’s study was limited to environmental education in the context of Zimbabwe. It was therefore important to examine skills that students in private secondary schools in Kigali get lead them to action or behaviour change.

In another study, Bizimungu (2012) examined school family partnership in curbing students’ deviant behaviours in Nine-Year Basic Education (9YBE) institutions in Northern Rwanda. The results of the study suggested that 9YBE institutions experienced deviant behaviours despite efforts made by teachers to raise well behaved students. Deviant behaviours indicated a moral crisis among students. Dominant deviant behaviours identified include lateness, cheating, noise making, truancy, and disrespect for teachers, lying, teenage pregnancy, fighting, stealing, and destruction of school property, indecent dressing, and bullying.

Although some factors such as the reluctance to teach moral and religious education, and the lack of role models among teachers have been identified as influencing deviant behaviours, there was no doubt that those behaviours signalled weaknesses in both socialization, and teaching and learning process. Authentic education should move students to change in behaviour and to good action. Bizimungu’s (2012) study however was carried in

a rural area mainly concerned with deviant behaviours in public or government aided schools. The current study was not only carried out in an urban area but also was carried out in private schools.

2.3.5 The Effect of Students' Evaluation Holistic Education

Against the backdrop of traditional standardized testing centred on the assessor in view of what constitutes academic achievement or what counts as knowledge (Williams & Hin, 2015), a new and more holistic approach to evaluation has been developed. The two authors have referred in their study to the notion of students' involvement, self-assessment and peer assessment as a way of improving formative assessment. Learners and teachers get involved in the creation of assessments and agree upon learning outcomes. This involvement, it is argued, creates transparency of the learning process, which allows the learners to keep track of their own progress.

In their research, William and Hin (2015) studied eight students from Korea, China, Vietnam and Malaysia who were attending a 6-week English preparatory course to gain English proficiency before beginning foundation and degree courses at a private university in Malaysia. Based on the study, the researchers established that students and teachers differed on items or skills that should be assessed and the weightage attached to each outcome. Similarly, the study suggested that encouraging learners to be involved in the creation of assessment could help to create a more holistic learning environment where learners are assessed on criteria which they understand and are fully supportive of. Although to effectively involve the learners in the process of assessment a teacher must first be prepared to accept the learners as partners in the learning and assessment process, the study concluded that, only when this happens can holistic learning take place. The study however was based on a small sample of respondents. The current study used bigger samples to establish how respondents appreciate collaboration or partnership in learning.

Another study exploring the Malaysia evaluated the implementation of school-based assessment system in schools in preparing a summative report on the effectiveness of the system in impacting students' achievement. The system, as Ghazali (2016) put it, is a holistic assessment conducted in school by subject teachers to assess the students' cognitive (intellect), affective (emotional and spiritual) and psychomotor (physical) aspects in line with Malaysia's national philosophy of education and the standards-based school curriculum. The

study provided support for the effectiveness of the system and suggested that when teachers have a positive attitude and gain skills on assessment, students are more likely to improve their attitude and motivation towards learning. Evaluation therefore is essential in improving learning and, in situations where different aspects of the students' growth are considered, holistic development is improved. Ghazali's (2016) study however was limited by the fact that samples were taken only from teachers leaving out other important stakeholders such as students. The current study considered other education stakeholder such as school administrators and students.

The importance of involving students in evaluation was also highlighted by Olatoye and Aanu (2011) in their study on the teachers' perceptions about using students to evaluate teaching effectiveness in Senior Secondary Schools in Nigeria. A total of 250 teachers randomly selected from 12 senior secondary schools in Ogun State participated in the study and a questionnaire was used to collect data. They discovered that majority of the teachers were in favour of students evaluating teaching effectiveness. Teachers see it as a way of assisting students in working on their area of weaknesses but also as a way of enhancing teaching quality. If weaknesses are worked upon effectively in response to students' needs and teacher's quality is improved, then collaborative assessment can contribute to holistic education. However, the study did not give any direction as to how such a collaborative assessment can be done nor did it make any claim as to what is to be evaluated. The current study provided more insights into whether and how evaluation of all aspects of students' growth is done.

A study on self-evaluation practices in the context of Tanzania secondary schools was conducted by Koley and Oluoch (2015). The study was based on the contention that schools must take their own initiative to assess the extent to which the expectations of their stakeholders are met and that by systematically gathering and analysing information about itself to make value judgment, a school is likely to improve. The study was motivated by the fact that most schools in Tanzania have not embraced self-evaluation since they depended on external school inspection conducted by the inspectorate, which only targets 50% of total school population. The study found out some self-evaluation practices in the sampled school including clocking-in for staff members, examinations for students, reflection following 'inspection' or in preparation for the next inspection. However, one important aspect that the

study found was that even after inspection schools have not been able to improve. Schools that evaluate themselves, the study concluded, were in the need to show off what they offer rather than shiver in fear of people finding out their areas of weaknesses. The study however seemed to focus on general school management rather than teaching effectiveness as the current study did.

Another study in Tanzania was carried out by Ndarickako (2015) on teachers' perceptions about assessment. The study involved all teachers who participated in marking the Certificate of Secondary School Examination. The study found that in general, teachers have favourable perceptions about assessment because it motivates students to learn. However, some of participants (20.7%) held preparation for final examination as a purpose of assessment, signalling the influence of high-stake examination on teaching and learning. Another considerable number (30%) considered assessment as an additional load to their workload. "Their responses seem to suggest that assessment should be done at teachers' convenience rather than being grounded from the importance and need for obtaining useful feedback for each milestone of teaching and learning" (Ndalichako, 2015, p. 330). The study however was conducted in a different context and did not directly explore how assessment or evaluation contributes to holistic education. It was important to know whether evaluation conducted in private schools in Kigali leads to holistic development.

Bahati, Tedre, Fors and Mukama (2016) explored feedback practices in formative assessment in Rwandan higher education. Researchers believed that formative assessment is an assessment of, for, and as learning. As the involvement of both students and teachers is one of its main characteristics and feedback its core feature, giving feedback was understood as something teachers do with and for students. The study found common practices of formative assessment included assignments, tests, quizzes, and practicals carried out during the teaching weeks. The kind of feedback given was mainly in form of score marks. Marks were feedback and feedback was about marks. However, the study established that oral and written feedback was used as other forms of feedback in addition to marks.

Unfortunately, some of the feedback was not well perceived. On the one hand, students were critical vis-a-vis in-class oral feedback pointing at limited class time and large class size. On the other hand, teachers' written comments were generally perceived as so unclear that students could hardly capture the meaning they conveyed. Thus, results of the

study showed that formative assessment and feedback were neither understood nor delivered correctly. Bahati et al. (2016) differ from the current study because they focused on students in higher education institutions rather than secondary school students.

2.3.6 Challenges in Implementing IPP in Schools

The provision of holistic education and indeed, any attempt to improve teaching and learning is not without challenges. The JSEA (1993) has already pointed out some challenges to implementing Ignatian Pedagogy. Those that still prevail even today include the limited view of education which reduce education to cultural transmission, limiting it to students' examination which impedes real understanding for responsible living; the prevalence of pragmatism which reduces education to job training; the desire for simple solutions expressed in the tendency to seek simple solutions for complex human questions and problems, something that does not satisfy the thirst for integral human growth that many people cry out for; the feelings of insecurity from the breakdown of essential human institutions, and migration; and the government prescribed curricula which may hinder formational priorities of schools.

Analysing government and religious secondary schools in Bangladesh, Khaled (2014) point to the fact the those schools suffer from low quality, poor access, insufficient public expenditures, gender inequality, social and economic disparities, and inefficient policy implementation. She makes policy recommendations for a transformative, holistic curriculum including more interactive teaching methods to develop the creative faculties and skills of children. There was therefore a need to reform the curriculum to make it more responsive to holistic needs of the child. Although both Rwanda and Bangladesh are struggling to raise their wellbeing of their people, they are historically different and have unique challenges.

A study on Islamic teachers' perceptions of improving critical thinking skills in Saudi Arabia's elementary schools was carried out by Alwadai (2014). Three major findings of the study reflect challenges faced in improving critical thinking skills among students. First, Islamic teachers lacked the basic knowledge of critical thinking in terms of their inability to define critical thinking to students regardless of their educational levels. Second, teachers usually taught by lecturing to students thereby limiting critical thinking opportunities. Third, teachers viewed students' ability as a constraint to improving critical thinking. Students lacked interest in practicing critical thinking. Thus, teachers' preparedness, their teaching

methods, and students' abilities are major impediments for the provision and improvement of critical thinking. Alwadai's (2014) study however examined critical thinking which is only one aspect of holistic education. The current study also tackled other aspects of holistic education in relation to learners' spiritual and emotional needs.

A survey of Jesuit schools in the Jesuit Province of Zimbabwe was carried by Pacey and Arimoso in 2011. The study highlighted unsatisfactory educational outputs, with unacceptably low quality educational outcomes in areas of school management and leadership, weak performance in areas of teaching and learning excellence, community participation in education, lack of child protection mechanisms, sustainable environment education programs and a noticeable lack of various policies to sustain the desired Ignatian education in the schools. Other concerns arose from the realization that the core mission, values, function and capacity of Ignatian ethos in the schools had been corroded by the country's political and economic crises that the country faced. Because of those challenges, there was no difference between Jesuit schools and public schools, the study concluded. Challenges of Jesuit schools in Zimbabwe may mirror what private schools in Rwanda face for both countries experienced political and economic crises. Rwanda nonetheless has had important strides in improving political and economic situations. The current study identified similar or emerging challenges.

In Kenya, Ntamushobora (2015), explored how Christian and public higher institutions provided education for holistic transformation. The researcher argued that education in Africa has not yielded positive results because it lacks a transformative aspect. The lack of progress on African continent has been blamed on ineffectiveness of graduates. There are many factors that explain Africa's predicament. Those include, as Ntamushobora (2015) found, lack of transformative teaching and learning methods, professionalism, poor economy, lack of relevant curriculum, and socio-cultural barriers. Unfortunately, Ntamushobora's study explored the context of Kenyan society and focused on higher education. The context of Rwandan private secondary education revealed more challenges.

In addition, Nyabwari, Katola and Muindi (2013) conducted a study examining the policy of holistic Christian education for character formation in the Seven Day Adventist Church sponsored secondary school in Nyamira County, Kenya. The study found that the policy has been inadequately implemented because the focus in studied schools was put on

the national competition for intellectual excellence. Thus, the study concluded, while SDA church sponsored schools attracted many students due to excellent performance in national examinations, the holistic Christian education for character formation was lacking. Recorded cases of drug and substance abuse, drunkenness, sexual abuse, violence, early marriages, elopement, pregnancies and school dropouts among students attested to it. Therefore, holistic education efforts may be thwarted by the competition for academic excellence at the expense of other aspects of students' growth. It was necessary to know whether this competitiveness is also present in Rwanda as the country puts competition at the forefront of its development agenda.

In Tanzania, a study by Haule (2011) examining the perception of teachers, parents and students on the effectiveness of co-education on holistic education noted multitude challenges faced in holistic education provision. The challenges outlined include lack of modern leadership skills among administrators, ill-equipped library, insufficient number of staff, lack of instructional materials, shortage of funds, unqualified and inexperienced teachers, lack of schools owner's commitment, failure of some students in paying school fees on time, lack of parents support and participation in school matters, as well as lack of commitment among teachers, and few cases of indiscipline. Those challenges, Haule (2011) argued, contributed to the declining holistic education. The current study examined whether similar challenges are experienced in private secondary schools in Kigali.

In Rwanda, upon studying the school-parents partnership in curbing deviant behaviours in 9YBE institutions, Bizimungu (2012) found that to some extent, schools and families were nurturing deviant behaviours among students. For example, on the one hand, the study highlighted the reluctance to teach moral and religious education, teachers' failure to be role models, the absence of discipline master, and lack guidance and counselling services as factors contributing to students' digression. On the other hand, ineffective parenting style, family breakdowns, lack of discipline at home and parents' failure to be role models were found to be negatively affecting students' conduct. The quality of teachers and parents may therefore hinder holistic education of students. However, Bizimungu's (2012) study only explored the behaviours of students. The study also explored the case of government schools whose challenges may be different from private schools' in Kigali.

Another study by Bizimana and Orodho (2014) was carried out to determine the correlation between availability of teaching and learning resources and effective classroom management and content delivery in secondary schools in Huye District, Rwanda. The study established that the availability of teaching and learning resources was insufficient. In addition, it was noted that teachers and administrators in the study were not improvising some of these resources from local materials since they largely relied on purchased materials. The study demonstrated that there was a positive significant relationship between teaching and learning resource availability and teachers' effective classroom management and content delivery.

The lack of resources compromised effective classroom management and content delivery. In holistic education efforts, the availability of resources is paramount in charting students' discovery of their potentials. The availability of classroom, laboratory, audio-visual, library and computer lab resources not only enhances students' intellectual capacity but also helps students in developing their talents. The insufficiency of resources thus impedes holistic education. Bizimana and Orodho's (2014) study however used the questionnaire as a sole instrument of data collection. The use of more instruments could yield better understanding of the situation. The current study will use, apart from questionnaire, interview, document analysis, and observation checklist.

2.3.7 Strategies to Enhance the Implementation of IPP in Schools

There is no one solution to challenges met in implementing IPP. Mitigating them would depend on the nature of the challenge, the extent to which they affect the teaching and learning and the available resources. In an inquiry into application of holistic approach to education in Latvian primary schools, Badjanova and Ilisko (2014) argue that for holistic education to increase the sustainability of students, the following tenets and fundamental conditions should be met:

respecting the learner's freedom in the process of education; supporting the principles of sustainable development: acknowledgment and comprehension of all facets of sustainable development; respecting the learner's individual experience in five dimensions of education that correspond to intellectual, emotional or affective, physical, social, aesthetic and spiritual dimensions of learner's natural development; integration of different school subjects, thematic teaching, simultaneous focus on

different areas; and learner development that subsumes facilitation of critical thinking, action competence, personal attitudes and values. (Badjanova & Ilisko, 2014, p. 27)

The study suggested that one should reflect on how to shape teaching and learning process where learners acquire specific subject matter that has the potential to inspire qualitative change in learners' development, support their growth and contribute to their personality formation. This study however reflected primary school teachers' views in the context of Latvian schools. It was important to know what teachers in private secondary schools in Kigali have to say about mitigating challenges encountered in holistic education.

In Zimbabwe, Pacey and Arimoso's (2011) baseline survey in Jesuit schools in Zimbabwe revealed that none of the spiritual, physical, emotional, and intellectual well-being of students was provided satisfactorily. In addition, infrastructures and facilities supporting education such as information technology front, and poor stakeholder relations were impediment to effective teaching and learning. In order to deal with those challenges, Pacey and Arimoso (2011) suggested that a recovery program of Jesuit schools be put in place. Such a program should target skills development, policy development, educational delivery infrastructure development, curriculum review, and the non-negotiable development of Ignatian character of the schools. In addition, monitoring and evaluation systems would need to be set up as means to sustain the recovery results in the long run. While Pacey and Arimoso's (2011) suggestions are relevant to this study, they directly fall under the Jesuit school flagship in Zimbabwe. It was important to know how other schools deal with encountered challenges.

In Nyamira County, Kenya, Nyabwari, Katola and Muindi (2013) have noticed problems in the provision of holistic Christian education for character formation in SDA sponsored secondary schools. The study established that there was lack of adequate training on holistic Christian education's content and relevance to the principals, deputies, teachers, students, parents and pastors who facilitated its transmission through the church's' traditions and practices. Nyabwari et al. (2013) suggested the development of physical, emotional, spiritual, intellectual and social competencies as solution to identified problems. Those competencies help learners in all aspects of day-to-day living. Strangely, however, the study did not suggest professional development as a possible solution despite the identification of

lack of training as a main challenge. The current study inquired whether professional development is a potential solution to challenges faced.

A study on the provision of holistic education at Chanjale Junior Seminary in Tanzania identified some measures that have been taken by the school administration in overcoming challenges it faces in implementing its goals of academic and character formation. Measures recorded included changing school administration to overcome administration related problems, hiring part-time teachers to respond to insufficient number of teachers, using a visiting spiritual director to respond to spiritual counselling and vocation guidance, and mentoring students by major seminarians on their long holidays (Haule, 2011). The study also suggested that employing qualified personnel, effective management of school resources, and focusing on vision, mission and objectives of the school could be solutions to persisting challenges. However, some solutions that apply to Chanjale Junior Seminary such as mentoring may not be applicable to the current study because of shortage of personnel and mentors.

The availing of resources is a means that can also be used to enhance holistic education amid resource constraints that hit many schools. The study by Bizimana and Orodho (2014) has established that the insufficiency of resources negatively affect classroom management and content delivery. The study indicated that lack of adequate and appropriate physical facilities in the context of heavy workload of teachers threaten smooth interaction between the learner and the learning process thereby constraining holistic education.

Among the study suggestions in dealing with the resources constraints, three are relevant to the current study. First, the study suggested that the government of Rwanda should provide adequate teaching and learning resources to schools experiencing resource constraints. Specifically, the government can provide adequate classroom resources, laboratory equipment, audio-visual aids, library facilities as well as computers to enhance teaching and learning for improved quality of education in the entire country. Secondly, it was suggested that the government should provide schools with enough financial subsidies to enable them acquire adequate and appropriate teaching and learning facilities. Third, teachers were encouraged to be more innovative to improvise some of the teaching and learning resources from locally available materials rather than relying solely on purchased and sophisticated facilities. The study however explored public and government-aided secondary

schools. Private schools may have to adopt different solutions because they do not benefit from the government subsidies.

Collaboration between various education stakeholders can be another solution to challenges in holistic education. Bizimungu (2012) in a study on curbing deviant behaviours among students in 9YBE institutions in Musanze District, Rwanda suggested that school family partnership can be an effective tool. The study found that in dealing with deviant children cases, most parents did it in collaboration with school rather than taking it as an isolated school business or family affair. This joint action, Bizimungu (2012) added, was reported to be effective in schools where it was most used. Such collaboration was demonstrated in cases like parents encouraging students to attend school and do their homework, attending school meetings, showing compliance to school rules, monitoring children when they are out of school, and providing for students' school needs.

In order to enhance the school-family partnership, Bizimungu's (2012) study suggested some measures. For example, organizing more meetings with parents, and empowering Parent-Teacher Associations can be helpful. Improving communication with parents, visiting them at home, provision for students' basic needs such as food, having a discipline master, fencing schools, and empowering teachers in guidance and counselling skills, can improve collaboration between parents and school for the well-being of students. Nonetheless, Bizimungu's study focused on school-family partnership in curbing students deviant behaviours. Yet, that collaboration should not be limited to parents but extends to other stakeholders. The current study expanded on how such extended collaboration can enhance holistic education.

In their study on the role of the teacher in peace-building and social cohesion in Rwanda after the 1994 genocide against the Tutsi, Rubagiza, Umuntoni and Kaleeba (2016) have suggested that through continued professional development, teachers can acquire knowledge and skills for fostering social cohesion in their classrooms and across the curriculum. This was in response to the decried lack of professional development despite its highly valued contribution to teachers' motivation and efficacy. Rubagiza et al.(2016) also reported that continued professional development "can empower teachers to ably facilitate the development of peace-building and social cohesion skills such as negotiation, problem-solving, collaboration, critical thinking as well as attitudes like empathy, tolerance and

compassion among students” (p. 213). Continued professional training is therefore important if teachers are to give their contribution in building a peaceful and a socially cohesive Rwanda. This professional development is equally important in the implementation of IPP because teachers always need continuous training in order to upskill their capacity to provide holistic education. However, Rugagiza et al. (2016) did not focus on provision of holistic education in private secondary schools as did the current study. It was important to find out whether professional development can be a stimulus for holistic education in private secondary schools in Kigali.

While there are many ways one can use to overcome challenges met in holistic education, there is no one solution that fits all. However, professional development of teachers does not seem to be given much attention by researchers and, yet, teachers are at the core of curriculum implementation. If teachers are to provide holistic education, they must be prepared and trained to do so. If they are fragmented and troubled in body, mind, and heart, they will neither transform their students holistically because they cannot give what they do not have. Teachers need to have experienced or be in the process of experiencing wholeness before attempting to develop wholeness in their students, noted Rathnam (2015) adding that since the common goal of holistic schools is to develop the conditions that would allow the observation of one’s wholeness, the wholeness of teachers or the exploration of teachers’ inner lives needs to be the foundation before creating the fertile ground for students to observe wholeness.

2.4 Summary of Literature Review and Knowledge Gap

This chapter elaborated on what holistic education is and how different elements of IPP inform teaching and learning process towards holistic education. Some theories related to holistic education namely, cognitional, transformative learning, experiential learning, and gestalt theories were reviewed. Those theories have provided insight into the understanding of holistic education, what it entails and how it can be provided. Common to all theories is that learning starts with experience and leads to action. However, these theories fall short of not concretely giving direction to teachers on how to holistically assist students in a classroom setting. This is why the research settled for holistic theory of knowledge and learning due to its comprehensiveness.

Empirical studies have been reviewed concerning how context, experience, reflection, action and evaluation inform holistic education. In addition studies were reviewed concerning challenges in implementing IPP for holistic education, and strategies to mitigate those challenges. Studies have shown that context, experience, reflection, action and evaluation individually contribute to different aspects holistic education by knowing and engaging students in teaching and learning and developing in them the awareness of their own learning process. Identified challenges include poor curriculum quality, lack of transformative teaching methods, resources, lack of trained and competent teachers, and competition for academic excellence at the expense of other growth aspects of the students. Researchers identified possible solutions to challenges including building a community of respect and freedom, provision of adequate teaching and learning resources, collaboration among various stakeholders, and continuous professional development.

Gaps in studies were identified mainly in areas of setting, focus, and methodology. For example, Paulk, Martinez and Lambeth (2014); Dhoaj (2013); and Pacey and Arimoso (201) conducted their studies in South Georgia, Nepal, and Zimbabwe respectively which are culturally different from Rwanda. In area of focus, Mahgoub and Alawad (2014); Ndiewo, Raburu and Aloka (2016); and Mukoni (2013) focused on fieldtrips, academic performance, environmental education, rather than holistic growth. In the area of methodology, William and Hin (2015) used a small sample; Ghazali (2016) collected data from teachers only; and Bizimana and Orodho (2014) used a questionnaire a sole instrument do collect data. Although reviewed studies directly or indirectly pointed to holistic education as crucial in moulding students for a meaningful future, they often focused on one or another aspect of students' growth. Few are those that together addressed intellectual, physical, emotional and spiritual needs. Even among those that directly point to holistic education, none of them was done in private secondary schools in Kigali. Although context, experience, reflection, action and evaluation were found to individually contribute to holistic education, to the best knowledge of the researcher, no collective study of the five elements was done. Equally, no element has been explored in the context of IPP in the context of private secondary schools in Kigali. Following these observations, there was a strong rationale for conducting a study on how IPP as a whole contributes to holistic education in private secondary schools in Kigali.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

Research methodology forms an essential part of any research work. It deals with the procedure used to gather, analyse, and interpret data. This chapter describes the design and methodology that was used to collect, analyse and make meaning of data concerning the contribution of IPP to holistic education in private secondary schools in Kigali. The chapter is arranged according to the research design, study area, study population, sampling procedures, data collection methods, validity and reliability of data collection instruments, data collection procedures, data analysis procedures, and ethical considerations.

3.2 Research Design

A research design is an exposition or plan of how the researcher plans to carry out or to execute the research problem that has been identified. Research design is concerned with the kind of method to be used and the type of instruments to be developed in order to collect appropriate data. There are three main approaches to research which are commonly used by researchers. Those approaches are qualitative, quantitative and mixed. Qualitative research, on the one hand, is concerned with meanings, concepts, definitions, characteristics, metaphors, symbols and descriptions of things (Berg, 2001). It involves a variety of empirical materials such as personal experience, life story, interview, observation, interaction in describing a certain phenomenon that affect people's lives. On the other hand, quantitative research is the collection and analysis of numerical data in order to describe, explain, predict, or control a phenomenon of interest (Mvumbi & Ngumbi, 2015). The numerical data is used to perform statistical analysis and results are used to answer research questions. Mixed method approach combines both qualitative and quantitative approaches. The choice of a given approach depends on the kind of data the researcher anticipates to collect in order to respond to research questions. Williams (2007, p. 65) noted that “researchers typically select the quantitative approach to respond to research questions requiring numerical data, the qualitative approach for research questions requiring textual data, and the mixed methods approach for research questions requiring both numerical and textual data.”

This study used a mixed method approach, because it involved a collection of quantitative and qualitative data. The mixed method approach, according to Creswell (2014)

allows a collection of quantitative and qualitative data in a single study or in a multiphase series of study. A combination of both forms of data provides a better understanding of a research problem instead of either quantitative or qualitative data alone. From the quantitative approach, the study adopted a cross-sectional survey design. The cross-sectional design entails, as Bryman (2012) puts it, a collection of data on more than one case at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables which are examined to detect patterns of association. Cross-section design was appropriate for this study since the researcher was interested in collecting quantitative and quantifiable information at once and describing possible contribution of IPP to holistic education in two different private secondary schools. On the basis of quantitative data, inferential statistics namely independent samples t-tests were used to establish whether there is difference between a school that has adopted IPP and a school which has not adopted IPP in terms of holistic education.

However, survey researches are quantitative and do not bring out voices and experiences of respondents. This is why a qualitative design was also incorporated to make for weaknesses of quantitative research designs. Qualitative research design probes into research setting in order to deepen understanding about a phenomenon. This study also adopted a collective case study. According to Yin (2003) a case study design should be considered when the focus of the study is to answer the how and why questions; when the researcher cannot manipulate the behaviour of those involved in the study; when the researcher wants to cover contextual conditions because he or she believes they are relevant to the phenomenon under study; and when the boundaries are not clear between the phenomenon and context. The how and the why aspects alone suffice to situate this study under a case study design because it examines ways in which IPP contributes to holistic education.

The collective case study selected for this study involves, as quoted in Creswell (2012), the study of more than one case in order to investigate a phenomenon, population or general condition. This approach assumes that examining more than one case lead to better understanding. Collective case study design was appropriate for this study because the researcher intended to explore more than one case to examine how IPP contributes to holistic education. A school run on IPP model was examined together with a school which is not run

on IPP model. A comparison of the two cases provided better understanding into whether and how IPP contributes to holistic education.

3.3 Study Area

This study was carried out in Kigali City, Rwanda. Kigali is the capital and the largest city of Rwanda situated at the heart of the country. The city is comprised of three districts namely Nyarugenge, Kicukiro and Gasabo. It is inhabited by approximately 1.2 million people. The vision of the city of Kigali is to make Kigali a centre of urban excellence in Africa, achieved through social inclusion, sustainable development and economic growth (Kigali City, n.d). The City of Kigali strives to promote the quality of education through regular inspection of schools, the organization of a yearly peer evaluation and awarding of best performers, and the organization of reading, writing and debate competitions for primary and secondary schools students where the best students are awarded (Kigali City, n.d).

3.4 Study Population

In research, the term population refers to the entire group of individuals, object or things that share common attributes or characteristics and maybe found within the same geographical location (Ogula & Onsongo, 2009; Mvumbi & Ngumbi, 2015). The total population that specified for a given study is what is referred to as target population while the accessible population is the section of the target population that a researcher can practically reach in order to select representative samples. The target population for this study consisted of students, teachers and head teachers in all private secondary schools in the three districts that make the city of Kigali, Rwanda. Kigali City was targeted because majority of private secondary schools in the country are found there (Rukabu, 2015). The target population and various samples drawn for the study are shown in Table 2.

Table 2***Population and Sample Frame***

Participant category	Population	Sample	percentage	Sampling Technique
Districts	3	1	33%	Purposive
Schools	23	2	9%	Purposive
Head Teachers	23	2	9%	Purposive
Teachers in 2 Schools	40	30	75%	Automatic inclusion, stratified random, simple random
Students in 2 Schools	410	100	24.4%	Stratified random, simple random, Purposive

3.5 Sampling Procedure and Sample Size

It is not always possible to collect data from all members of the population because the population might be too large given limited time and resources available. Consequently, researchers often collect data from a sample or a sub-group of the population and then generalize the findings on target population (Ogula & Onsongo, 2009). In this study, the researcher found it necessary to take a representative sample to participate in the research. Since the study intended to use mixed paradigm, it was appropriate to use both probability and non-probability sampling techniques to sample participants in the study. In probability sampling each individual in the population has a known probability or equal chance of being selected while in non-probability sampling, individuals are not chosen by chance (Gall, Gall & Borg (2007). The study adopted stratified and simple random sampling techniques under probability sampling while purposive sampling was used for non-probability sampling.

3.5.1 Sampling of schools.

There are three districts in the city of Kigali. The research was conducted in one district, the district of Gasabo, selected purposely because a school ran on Ignatian pedagogy model is located in this district. There were 23 private secondary schools in Gasabo district, of which two schools were purposively selected to allow comparison. Purposive sampling consists in selecting a sample on the basis that the sample is likely to be information-rich

with respect to the purposes of the study (Gall, et al., 2007). In this study, it was appropriate to include a school run on IPP model since it would provide rich information concerning the contribution that IPP makes. Thus, St Ignatius High School (School A) was selected because it is run on IPP model, the only Jesuit secondary school in the country (Jesuits Rwanda-Burundi, n.d). Another school, St Paul International School (School B) was also purposively selected because it shared fairly similar conditions, the difference being it does not use IPP. The two schools are mixed, Catholic, private, day-schools. A comparison of the two schools would determine whether the use of IPP makes any difference in holistic education efforts.

3.5.2 Sampling of head teachers.

The researcher sampled two schools to participate in the study. The two head teachers in the two schools were chosen to automatically participate in the study. They were selected using purposive sampling technique since they are school managers whose role is to ensure that government policies and curriculum are adequately implemented. They hold valuable information on the state of holistic education in their respective schools. They are the immediate supervisors of the implementation of curriculum in schools.

3.5.3 Sampling of teachers.

There were 40 teachers in the two selected schools at the time of research. It is recommended that a sample of 10% or 20% of the population is enough in survey research and that for a smaller population of 100 or less the entire population is surveyed (Gay, et al (2009). Gall et al. (2007) also noted that a sample of 100 participants in each major subgroup and 20 to 50 in each minor subgroup is enough in survey research. Based on these recommendations a sample of 15 teachers in each school totalling 30 was chosen to participate. The researcher sought from the head teacher a list of all teachers and the courses they teach. On stratified random sampling technique, 15 teachers from each school were selected to participate in the study. In order to ensure that all areas of students' growth are represented, the researcher ensured that there was teacher representation in each major and minor courses (strata) offered in the school. Where there are many teachers in the same area of study, pieces of paper with Yes and No were prepared and picked using simple random technique according to the desired number. Those choosing Yes became participants. Automatic inclusion was applied where there was one teacher in an area of study.

3.5.4 Sampling of students.

At the time of research, there were a total of 410 students in the two selected schools. From two, three, five, and six students were sampled to participate in this study. These particular categories of students were chosen on purposive or judgmental sampling technique because they have rich experience staying in their respective schools for more than a year. Fifty students from each school were selected to participate, following Gall et al.'s (2007) recommendation that 100 participants in a major group are enough. Among the fifty, forty eight students were selected using stratified random sampling, while two student representatives in each school were purposively selected because, representing the student body, they were assumed to have an informed opinion on challenges and opportunities their fellow students encounter.

Stratified random sampling is used when the group studied being heterogeneous is divided into homogeneous units whose members can be sampled on simple random sampling (Bryman, 2012). Since the group studied included both boys and girls at different years of study, it was necessary to ensure that each stratum is proportionally represented in the study. To this effect, students were divided according to their level of study and gender, and randomly selecting 12 students (six boys and six girls) from each of identified levels of study. Each student in a stratum was assigned a number; the number was written on a paper, folded and placed in a container. The papers were then picked randomly according to the desired number. Thus, for this study, a total of 100 students, 30 teachers and 2 head teachers were selected to participate.

3.6 Data Collection Methods

Data collection methods are processes used to gather information or data in order to respond to research questions (Murray, 2003). There are several instruments, techniques or tools used to collect data. According to Mugenda (2008), the concept of a tool or instrument in social research was borrowed from the physical and biological sciences where measurement equipment and procedures are highly developed. The most commonly used instruments to collect data are questionnaires, document or content analysis, interviews, observations, and tests. The selection of any of those instruments depends on the design and the nature of the study. However, it is always preferable to use more than one instrument to collect data because, as Mouton (1996) puts it, in principle, an inclusion of multiple

instruments is likely to increase reliability of the observations. For this study, four tools for data collection were used namely, document analysis, questionnaire, interview guide, and observation.

3.6.1 Document analysis guide.

Document or content analysis entails studying human behaviours in an indirect way through the analysis of their communications (Oso, 2016). “The process of content analysis entails searching through one or more communications to answer questions that the investigator brings to the search. Content analyses are not limited to written or printed documents but extend as well to audio recordings, still photographs, motion-picture films, video recordings, and the like” (Murray, 2003, p. 57). Documents on the performance of students, and students’ extracurricular activities, clubs, class attendance and students’ discipline were analysed to establish whether they point to holistic education. A document analysis guide is found in appendix 5.

3.6.2 Questionnaire.

As a method of data collection, a questionnaire is a collection of precise pre-formulated written items designed to yield specific information to meet particular needs for research, and to which research participants are expected to respond usually in writing (Oso, 2016). A questionnaire is a set of questions that participants are asked to answer either by checking one choice from among several possible answers or by writing out an answer (Murray, 2003). Through a questionnaire, participants provide factual information or opinions that a researcher uses to answer research questions. A questionnaire has the advantage of allowing the researcher to collect data from a large sample in limited time (Gall, et al, 2007). In this study a questionnaire was used in order to collect information from the two main groups of participants namely students and teachers. Subsequently, two kinds of questionnaire were used.

On the one hand, the students’ questionnaire consisted of eight sections. Section A sought demographic information such as age, gender, class, and religious affiliation. Sections B, C, D, E and F respectively sought information on how context, experience, reflection, action and evaluation influence holistic education. Section G examined challenges met in implementing IPP in schools while section H sought strategies to mitigate challenges encountered in implementing IPP for holistic growth.

On the other hand, teachers' questionnaire also consisted of eight sections. Section outlined demographic information of teachers such as age, gender, qualification, teaching experiences, and responsibilities in the school. Sections B, C, D, E and F sought information concerning how context, experience, reflection, action and evaluation contribute to holistic education respectively; section G concerned challenges met in implementing IPP while Section H was meant to find out strategies that can be utilized to deal with identified challenges. Students' and teachers' questionnaires are found in appendixes 6 and 7 respectively.

3.6.3 Interview guide.

Interviews usually involve a researcher orally asking questions for individuals to answer orally. However, Murray (2003) contended that with the advent of the Internet and modern technologies interviews can also be conducted in written form, with the researcher sending typed questions via a computer network to respondents who answer in typed form or through phone calls and video transmissions. Interviews in research are often seen as superior to other data collection tools because it creates rapport between the researcher and the respondent, thus allowing the researcher to get deeper and clearer information about the study area (Oso, 2016). This is why the research found it necessary to also conduct interviews with some respondents to get deeper understanding of how IPP contributes to holistic education or challenges encountered in holistic education enterprise. In this study, interview was conducted with two head teachers and four students who represent others. It focused on three main areas namely how holistic education is being provided, challenges that are met in implementing IPP or holistic education provision, and possible strategies to mitigate those challenges. Appendixes 8 and 9 serve as interview guides for head teachers and students representatives respectively.

3.6.4 Observation guide.

As a tool of data collection in research, observation relies on the researcher directly seeing, hearing, testing and smelling things and takes notes of what is observed to be used to respond to research question. Observation has the advantage of avoiding reporting bias from someone else, overcoming language barriers and observing naturalistic behaviours (Kasomo, 2015). Since observation provides first-hand experience of a given situation, the researcher used observation checklist in order to identify some patterns that promote or hinder the

holistic education. Observation concentrated on availability and quality of facilities and equipment, teaching and learning process, and services and various activities. An observation checklist is found in appendix 10.

3.7 Validity and Reliability of Research Instruments

Validity refers to quality of a procedure, instrument or a tool of data collection being accurate, correct, true, meaningful, and right; reliability refers to how consistent a procedure or and instrument is (Kasomo, 2015). An instrument is reliable if its results can be depended on, consistent and predictable over time and use, and if it produces more or less the same results after repeated measurements (Oso, 2016). Validity and reliability were ensured in this study for both quantitative and qualitative instruments.

3.7.1 Validity of quantitative research instruments.

Validating an instrument helps to determine whether the designed document analysis guide, questionnaire, interview guide or observation can measure what they purports to measure. In this study, validity was determined by ensuring that the content of instruments represent a comprehensive coverage of holistic education in line with research questions of the study. The researcher's subjective judgments, peer review, expert scrutiny from university supervisors helped in validating instruments. Their views and suggestions were incorporated into the final draft of research instruments. In addition, source and method triangulation was used as validating methods. Source triangulation was ensured by asking different groups of respondents to respond to some similar questions while method triangulation was used by incorporating a variety of data collection instruments to collect some similar information. Further, a pilot test of instruments was used since to help remove ambiguities in questions.

3.7.2 Pilot testing.

It is recommended that the piloting of research instruments be carried out before the actual study begins in order to determine and eliminate deficiencies in questions, difficulties in responding, or questions that make respondent uncomfortable. A pilot study involves a small-scale testing of procedures that one plans to use in the main study and revising the procedures based on what the testing reveals (Gay, et al., 2009). A pilot study, Gall et al. (2007) recommend, should include a sample of individuals from the population from which one plans to get respondents. In this study, a pilot test was carried among 10 students and

five teachers in one of the private secondary schools in Kigali which was not to not participate in the study. Respondents were encouraged to make comments and suggestions to improve the instruments. A pilot test is useful for both validity and reliability.

3.7.3 Reliability of quantitative research instruments.

An instrument for data collection is reliable when it consistently measures what it is meant to measure. Reliability, as Gay et al. (2009) highlight, is expressed numerically, usually as a reliability coefficient. One of the ways of determining whether research instruments can produce consistent results is by using statistical methods. Cronbach's alpha reliability coefficient is a common determinant of reliability of instruments. It is calculated using the following formula:

$$\alpha = \frac{n}{n-1} \left(1 - \left(\frac{\sum Vi}{Vt} \right) \right)$$

Where **n**: the number of questions
Σvi: variance of scores on each question
Vt: total variance of overall scores on the entire

For the current study, the questions that yielded quantitative data for both students' and teachers' questionnaires were tested using the indicated formula. The results of the pilot test on questions that yielded quantitative data were coded and entered into the Statistical Package for Social Sciences (SPSS) version 23 on the basis of which Cronbach's alpha reliability coefficient was computed. The reliability index ranges from .00 to 1.00 with .00 indicating non reliability of instruments while 1.00 indicates perfect reliability. The reliability indexes for students and teachers' questionnaires were .78 and .76 respectively which were acceptable on the recommendation of Salvucci, Walter, Conley, Fink, and Saba (1997) that a reliability of less than .50 is low, moderate between .50 and .80, and high when it is beyond .80.

3.7.4 Trustworthiness of qualitative research instruments.

Qualitative instruments must be reliable for a research to be trustworthy. The trustworthiness of a research is ensured when the data is credible, consistent, transferable and confirmable. The credibility or confidence in participants' data was ensured by seeking respondents' consent to participate and by encouraging them to be frank in their responses, while ensuring them confidentiality. In addition, source and method triangulation was used to ensure credibility by using a different instruments and respondents to collect some similar data.

Consistency or dependability indicates the degree to which findings remain steady if a study could be repeated. The researcher used different and common data collection methods and systematically reported research process so that other researchers may eventually repeat the same process and arrive at the similar results. Transferability expresses the degree to which study results can be applicable to other contexts, settings or groups. Transferability in this study was ensured by paying attention to studies done in similar situations of developing economies like Rwanda's. Conformability or neutrality is the extent to which the findings of the study are not shaped by the researcher's bias and interests and can be confirmed or corroborated by others. Method triangulation was used to reduce possible researcher's biases and to ascertain where data was confirmed by others. In this study, the researcher also accurately presented the perspectives of respondents. In addition, leading questions were avoided during interviews.

3.7.5 Description of data collection procedures.

The researcher collected data through the use of designed instruments. However, before administering instruments the researcher used the letter from the Catholic University of Eastern Africa to seek permission from relevant authorities and school administrators including the owners of the private schools, and head teachers or principals. Help was also sought from school administrations to access respondents, administer instruments, and collect other useful data especially those pertaining to students' records, availability of resources, and students' activities. Prior to data collection, the researcher met sampled respondents to explain the purpose of the research and its potential benefits. This also helped to get their informal consent. The questionnaire was administered to respondents and was collected by the researcher. Interviews were carried out by the researcher on one-on-one basis while non-participant observations were carried out. As Kasomo (2015) contended, in non-participant observation, the researcher is passive and merely takes notes of what he or she observes.

3.8 Data Analysis and Presentation

Data analysis is a process of organizing data into meaningful and useful information that help in answering research questions (Mvumbi & Ngumbi, 2015). Data analysis helps in making interpretations, conclusions and recommendations in the light of what the study purports to achieve. There are two main ways of analysing data in research. It can be done using quantitative or qualitative means. Both quantitative and qualitative analysis procedures

were used in this study since the study use a mixture of quantitative and qualitative approaches.

3.8.1 Quantitative data analysis.

In this study, quantitative data was coded and entered into SPSS version 23 on the basis of which a statistical analysis was done. The study established whether there is significant difference in holistic education in the two selected schools. It also made use of inferential statistics, specifically t-test, testing whether there is significant mean difference between a school that has adopted IPP model and the school which did not. The hypothesis was tested at 95% confidence level and focused on both teachers and students' ratings on various Likert scale items regarding ways in which context, experience, reflection, action and evaluation contribute to holistic education and the level of holistic education in both schools. Any p-value which was less than .05 meant that a statistically significant difference existed between the ratings or scores of the two schools while a p-value greater than .05 meant that no significant difference was observed. Norman (2010) has emphasised that parametric tests such as independent samples t-test are sufficiently robust to yield largely unbiased answers that are acceptable close to the truth when analysing Likert scale responses; parametric tests tend to give right answers even when statistical assumptions have been violated. The hypothesis was also tested with regards to ratings on the level of holistic education in both schools. The results of the study were presented in tables and figures.

2.8.2 Qualitative data analysis.

Since research instruments in this study included open-ended questions and interviews, a collection of qualitative data in terms of opinions and views was unavoidable. Qualitative data in this study was transcribed and classified into themes subject to thematic analysis. They were presented in narratives form. For elucidation, direct quotations reflecting views of respondents were included where necessary. In addition, the findings of each research question were presented and discussed currently, as Mvumbi and Ngumbi (2015) suggest, allowing the researcher to divide discussions into themes that correspond to each research questions.

3.9 Ethical Considerations

Ethics is a significant element in any research activity. It should be at the heart of research from early design right through the reporting and beyond (Webster, Lewis &

Brown, 2014). Thus, ethics focus on the application of ethical standards in the planning of study, collection of data, analysis of data, and the dissemination and use of findings. There is a range of ethical principles that guide a research exercise. Webster et al. (2014) stated that a research should be worthwhile and should not make unreasonable demands on respondents; participants should voluntarily consent to participate in the study; adverse consequences on participants on participants and any risk of harm known should be prevented while at the same time respecting their confidentiality and their anonymity.

In this study, some ethical principles were ensured prior to data collection, during data collection and during data analysis and reporting. First, a research authorization was sought from relevant authorities prior to the collection of data. Second, confidentiality of respondents was safeguarded as much as possible. Respondents were not asked to write their names on the questionnaires and if they mistakenly wrote their names, those names were ignored. Third, the respondents have the right of privacy. The researcher ensured that interviews are not conducted in public places such as classrooms. The information provided was not disclosed to third parties and served research purposes alone. Fourth, the principle of voluntary participation was applied. The researcher explained the purpose of the research and its potential benefits after which respondents gave their informal consent. Respondents were free to accept, refuse or withdraw from the study and free to answer or not answer all questions.

During the data analysis, the researcher's bias was avoided. Following the recommendation of Creswell (2014), findings of the research were reported without changing or falsifying information given by respondents. The data, whether disclosing negative or positive information, was analysed and reported as such without modifying it. The principle of anonymity was applied through the use of generic terms such that none is able to associate some information with a given respondent. It is also a responsibility of the research to avoid plagiarism. Thus, sources of information for this research were acknowledged following the American Psychological Association (APA) 6th edition.

3.10 Chapter Summary

This chapter has described the methodology used to collect, analyse and interpret data on the contribution of IPP to holistic education in private secondary schools in Kigali. The chapter explained why the study used a combination of both qualitative and quantitative

approaches. The chapter also explained why a collective case was appropriate for this study. It described how purposive sampling, stratified sampling, and simple random techniques were used to draw a sample of 132 participants. The chapter also described the methods used to collect data, analyse and make sense of collected data. In addition, the process used to validate data collection instruments was discussed and ethical considerations used during the study were highlighted. In the next chapter, collected data are analysed, presented and discussed in the light of the research questions and objectives of the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter discusses findings on the contribution of IPP to holistic education in private secondary schools in Kigali City, Rwanda. Since the findings constitute the responses to the research questions, the arrangement of the discussion is modelled to the general layout of seven research questions as outlined in chapter one. Section one is a description of administration of instruments, return rate and demographic information. Section two presents and analyses findings concerning ways in which teachers' consideration of students' context influences holistic education. Section three discusses findings on how teaching and learning experiences influence holistic education. Section four analyses how students' reflection on experiences stimulates holistic education. Section five discusses findings on the extent to which students' actions motivate holistic education. Section six deals with the effect of students' evaluation on holistic education. Section seven presents findings on challenges encountered in implementing IPP in schools while section eight pertains to strategies to enhance the implementation of IPP for holistic development.

The researcher also tested whether there is a statistically significant difference between a school run on IPP model (School A) and a school without it (School B) with regard to provision of holistic education. The statistical tests were based on Likert scale items on each of the five elements of IPP namely context, experience, reflection, action, and evaluation which form the basis of the first five research questions. The items were tested using independent samples t-test. Results were summarized, analysed and presented in tables and figures.

4.2 Administration of Research Instruments and Return Rate

The research instruments were administered and collected by the researcher to sampled participants. The participants in the study and the return rate are presented in table 3.

Table 3

Administration of Research Instruments and Return Rate

Sampled Participants	Expected Responses	Actual Responses	Percentage
Students	100	91	91%
Teaches	30	22	73.3%
Head teachers	2	2	100%
Total	132	115	87.1%

Table 3 shows that the study had a sample of 132 participants comprising of students, teachers and head teachers. One hundred and fifteen participants responded representing 87.1% submitted their filled responses. Those who did not return the questionnaires were not coerced to do so because they had freedom to participate or withdraw from the research at any time. Bryan’s (2008) argues that a response rate is barely acceptable at 50%, acceptable at 60%, very good at 70% and excellent at 85%. Thus, the response rate of 87.1% for this study passes highly to be relied upon for presentation and analysis of findings.

4.3 Demographic Information

In research, demographic information of respondents is necessary in order to ascertain the reliability of respondents in proving relevant and needed data. In this study, the researcher sought demographic information of respondents. Demographic characteristics of students by gender, age, religious affiliation, year of study and combination are presented first followed by teachers’ gender, age, religious affiliation, qualification and teaching experience.

4.3.1 Demographic information of students.

The demographic characteristics of students are shown in table 4.

Table 4*Demographic Characteristics of Students*

Value Label		Frequency	Percentage
Gender	Male	45	51.7
	Female	42	48.3
	Total	87	100.0
Age group	10-15	41	47.1
	16-20	46	52.9
	21-25	0	0.0
	above 25	0	0.0
	Total	87	100.0
Religious Affiliation	Catholic	43	49.4
	Adventist	3	3.4
	Protestant	34	39.1
	Muslim	3	3.4
	Other	4	4.6
	Total	87	100.0
Year of Study	Senior 2	23	26.4
	Senior 3	22	25.3
	Senior 5	19	21.8
	Senior 6	23	26.4
	Total	87	100.0
Combination	OLC	44	50.6
	Sciences	43	49.4
	Total	87	100.0

Table 4 shows demographic information of students in terms of gender, age group, religious affiliation, year of study and combination. The table shows that male (45) and female (42) students were fairly represented with 51.7 % and 48.3 % respectively. The fairly equal representation of gender forms the basis for reliability of the collected data. Respondents also reported to be in two age groups, namely 10-15 and 16-20 representing 47.1 % and 52.9% respectively. No respondent reported to be in the age group beyond 21 years. The age of respondents is within the range of the official age for secondary education which goes from

13 to 18 years (MINEDUC, 2016). Students who responded in this study were therefore relatively young.

The researcher also sought information on the religious affiliation of respondents. Almost half (43) of respondents representing 49.4 % were Catholics followed by Protestants (34) representing 39.1%. Other religious denominations namely Adventists (3), Muslims (3) and others (4) were poorly represented, each with a less than 5% representation. This may be explained by the fact that the two sampled schools are Catholic schools which attract many Catholic students. This may also indicate that the Catholic religion is a dominating religion in the City of Kigali or that parents that do not belong to the Catholic religion do not send their children to catholic schools. However, the presence of students from other religious denominations at the sampled schools indicates that the schools do not discriminate students based on their religions. This religious diversity is both a challenge and opportunity to respond to students' diverse spiritual needs.

In terms of respondents' years of study and their combination, it was observed that sampled students from senior two, three, five and six were fairly distributed across the years of study, with the highest representation (26.4%) being senior two and senior six, and the lowest (21.8%) being senior five. This fair representation allows equilibrium of views on the extent to which students are being educated holistically. Participants were also asked to indicate their combination. Forty four students representing 50.6% were in lower secondary, the Ordinary Level Combination (OLC) while 43 representing 49.4% were in upper secondary, all in science combinations. There was a fair distribution of respondents across levels of education. This fair distribution ensures balanced views and good representation of student population in schools. It is also worth noting that all students in upper secondary level were in science combinations. The researcher learned that sampled schools ran only science combinations in upper secondary level. The lack of other combinations (humanities and languages) at the sampled schools may be due to the country's general trend of promoting science and technology. However, this does not pose a threat to holistic education since, as Noddings (2005) noted, teachers can stretch their subjects to meet the needs of the whole child regardless of the course or combination under consideration. Thus, any subject can be explored in a way that leads to holistic growth.

4.3.2 Demographic information of teachers.

The demographic characteristics of teachers are shown in table 5.

Table 5

Demographic Characteristics of Teachers

Value Label	Frequency	Percentage	
Gender	Male	19	86.4
	Female	3	13.6
	Total	22	100.0
Age	25 and below	0	0.0
	26-30	4	19.0
	31-35	7	33.3
	36-40	2	9.5
	41-45	5	23.8
	46 and above	3	14.3
	Total	21	100.0
Religious affiliation	Catholic	13	61.9
	Adventist	0	0.0
	Protestant	5	23.8
	Muslim	1	4.8
	Other	2	9.5
Total	21	100.0	
Qualification	Diploma	1	4.5
	Bachelor of Education	15	68.2
	Master of Education	2	9.1
	Others	4	18.2
Total	22	100.0	
Experience in Teaching	0-5 years	5	23.8
	6-10 years	6	28.6
	11-15 years	6	28.6
	16-20 years	1	4.8
	More than 20 years	3	14.3
Total	21	100.0	
Teaching Experience in current school	Less than 1 Year	5	22.7
	1-3 years	8	36.4
	4-6 years	9	40.9
	Total	22	100.0

Table 5 shows that 19 male teachers representing 86.4% participated in the study while only 3 female teachers representing 13.6% participated. This unequal representation of teachers by gender is a concern because it means that schools employed more male than female teachers resulting in gender imbalance. This gender imbalance may be a challenge to female students who do not have many role models at school thereby reducing their opportunities for holistic growth. The study of Rubagiza et al. (2016) has also shown that this low representation of female teachers is a concern for social cohesion. Referring to UNESCO 2006, Rubagiza et al. (2016) noted that “the low numbers of female teachers at secondary school level have implications not only in terms of their misrepresentation and lack of recognition, but also in terms of a lack of role models for girls, especially in rural communities where their presence may encourage parents to send their daughters to school” (p. 216). However, this gender imbalance at sampled schools may not have a negative impact on holistic education. In fact, the study by Neugebauer, Helbig and Handmann (2010) found virtually no evidence of a benefit from having the same-sex teacher, neither for boys’ nor for girls’ educational attainment. Thus, teachers, regardless of their gender can help all students to grow holistically.

Table 5 also shows a relatively diverse group of teachers according to their age. Teachers were distributed in different age groups from 26 to 46 and above. No teachers were reported to be 25 years of age or below. Four teachers representing 19 % reported to be aged between 26 and 30. Seven teachers representing 33.3% were aged between 31 and 35. Two or 9.5% of teachers who responded were aged between 36 and 40 while five or 23.8% were between 41 and 45 while the remaining three or 14.3 % were aged 46 and above. This indicates an existence of a mature group of teachers who are able to both give constructive contribution and help students grow.

The group of respondents was also diverse according to their religious affiliation. Majority (61.9%) of teachers were Catholics followed by Protestants (23.8%). Two teachers representing 9.5% reported to belong to other religions probably traditional religions. Only one teacher (4.8%) reported to belong to the Muslim religion and none belonged to the Seventh Day Adventist. This implies that in Catholic Schools, more Catholic staff members are employed perhaps to preserve the Catholic identity. It may also point to fact that Catholicism and Protestantism are dominant religions in the City of Kigali in particular and

in the country in general. However, the religious diversity among the teaching staff may also mean that the sampled schools did not segregate based on religious affiliation.

With regard to respondents' qualification, it was observed that majority of teachers were qualified to teach because 15 teachers representing 68.2% had Bachelor of Education and 2 representing 9.1% had Master of Education. The remaining others were teaching with a Diploma (4.5%) or with another degree (18.2%). This is in conformity with the national average of qualified teachers in secondary schools which was 69.2% in 2016 (MINEDUC, 2016). However, since teacher qualification is essential for quality teaching, there is need to pay attention to qualification in hiring teachers and increase their training so that they can be better equipped with skills to assist students in their various needs.

The research also sought information on the teaching experience of teachers. Table 5 shows that six teachers representing 28.6% had 6 to 10 years of teaching experience. Equally, six teachers representing 28.6% had 11 to 15 years of teaching experience. Three teachers or 14.3% had more than 20 years of teaching experience while one teacher or 4.8% had 16-20 years of experience. Only five representing 23.8% had less than five years of experience. This shows that majority of teachers had enough teaching experiences and their experience is of great importance in attending to students' needs. In their current sites at the time of this study, nine teachers representing 40.9% had four to six years of teaching experience while eight representing 36.4% had one to three years. Five teachers were new in the school because they had less than one year of teaching experience. This implies that they were not yet conversant with the school vision and may not be well conversant with the teaching and learning environment in their respective schools. This may hinder holistic education unless appropriate training is offered.

4.4 The Influence of Teachers' Consideration of Students' Context on Holistic Education

The first research question sought to know ways in which teachers' consideration of students' context influences holistic education. In order to establish this, the researcher sought to know whether teachers consider the background of students in the teaching and learning processes. Surprisingly, all the 22 or 100% teachers who responded admitted to consider students' background in the teaching and learning. However, the students had diverging views as shown in Figure 4.

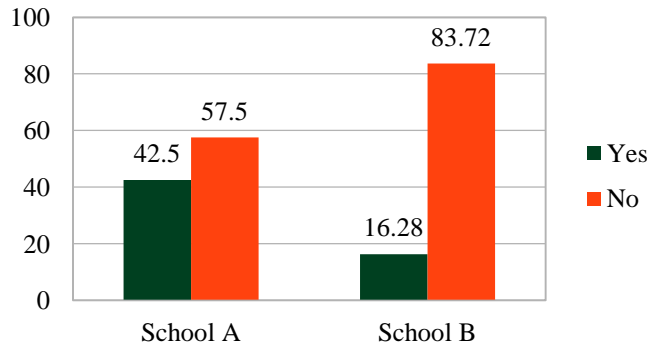


Figure 4. Consideration of Students' Background (Students' Views)

Figure 4 shows that majority of students 57.5% and 83.7% in School A and B respectively, did not feel their background was considered by teachers in their teaching. This is disconcerting because as Onyango's (2012) study showed, students show no growth if their background is neglected by the school. However, it can be observed that the percentage of those whose background is seen as considered is higher in school A than in School B as shown by their respective percentage of 42.5% and 16.3%. Thus, teachers in School A put in more effort to consider students' background. This may be explained by the fact that school A is run on IPP whose essential tenets include a consideration of students' background.

The researcher also sought to identify, from both students and teachers' perspective, ways in which students' background is considered in teaching and learning process. On the one hand, a student said for example that teachers try to know as much as they can about students' health, feelings, family, behaviours and values in their teaching. Another student reported that teachers made effort to know the reason for students' absence, distractions, disturbance, or any other unusual behaviour. A student further said that during class, a teacher takes the lesson back if there are chapters students did not grasp well. On the other hands, some teachers also admitted that they follow each student as an individual and consider students' previous school records and family situation. Others have admitted to giving special attention to weak students from poor families.

Nonetheless, it was reported that some teachers use students' background to disadvantage them. For example, a student respondent reported that when teachers know that the students have wealthy parents they pay much attention to students but if the parents are poor students are ignored. Similarly, another student respondent said that teachers prefer

some students over others just because of their background. This situation is echoed in Dhoaj's (2013) where girls were ignored and poorly given educational opportunities because of patriarchal nature of Nepalese society. Thus, while it is good to consider students' context in planning educational opportunities, designing and delivering instructions, it should only be used for students' better educational attainment and character moulding.

In order to ascertain whether a consideration of students' context can lead to holistic education, the researcher inquired whether personal care and concern for each student leads to better academic performance, physical fitness, attitudes and values. Students were asked to rate their level of agreement with various statements on a scale of 1 to 5 with 1 meaning strong disagreement and 5 meaning strong agreement. The results have been computed and compared using independent t-test and are summarized in Table 6.

Table 6

How Care and Concern for Students Contributes to Holistic Education

	Group Statistics						Test Statistics		
	School A			School B			t	df	Sig. 2-tailed
	N	Mean	Std. Dev	N	Mean	Std. Dev			
Teachers take personal care and concern for each student	42	3.62	0.88	44	3.14	1.25	2.08	77.46	.041
Care and concern improve academic performance	42	3.98	0.78	45	3.58	1.29	1.76	73.27	.083
Care and concern for physical health leads to fitness	42	3.76	0.82	44	3.82	1.15	-0.26	77.98	.794
Care and concern for feelings leads to honesty & respect	41	3.73	1.12	44	3.64	1.10	0.40	83	.693
Care and concern for spiritual needs leads to compassion	42	4.12	0.86	44	3.02	1.44	4.31	70.87	.001

Table 6 shows a statistically significant difference between students' ratings in School A and School B in terms of whether teachers take personal care and concern for each student, $t(77) = 2.08$, $p = .041$. Since the p-value (.041) is less than the significance level (.05), the

difference between the two schools is statistically significant. On a five point scale, students in School A averaged 3.62 (SD = 0.88) against 3.14 (SD = 1.25) in School B. Thus, teachers in School A which adopted IPP model were doing better than those in school B in taking personal care and concern for each students. However, asked to rate whether the personal care and concern for each student contribute to various aspects of holistic education, generally, there was no significant difference found. The only significant difference was observed in ratings on whether the care and concern for spiritual needs helps in developing values such as compassion, $t(70.87) = 4.31, p = .001$ because the p-value is less than .05 significance level. This puts School A at a higher advantage than school B for students' spiritual growth. Thus, students in school were more positive on whether care and concern for their spiritual needs leads to holistic education.

In an open-ended question, the researcher sought information from teachers and students on ways in which personal care and concern for each student can lead to holistic education. On the one hand, a teacher said that students feel valued and believe in their ability for higher achievement. Another teacher asserted that a student who is cared for does not consider the teacher as someone strange but one who is there to help. Further, a teacher contended that personal care and concern for students develop in them trust and free expression of abilities. On the other hand, some students have said that personal care and concern helps to know what students are capable of and improve their understanding. A student said that personal care and concern creates an environment of confidence in school. Another student asserted that when students are cared for, they feel appreciated and strive to achieve. This is in agreement with Mouraz and Leite (2013) who found that contextualization practices increased students' motivation and active participation in learning. Thus, considering students' context, accommodating their various needs is essential in holistic education enterprise.

4.5 Influence of Teaching and Learning Experiences on Holistic Education

The research question number two sought to find out how teaching and learning experiences influence holistic education. In order to establish this, respondents were asked to indicate whether students have opportunities to deepen knowledge through class participation, class visits, role playing and experiments. In addition, they were asked to indicate how those experiences contribute to holistic education. On a five point scale with 1

meaning a strong disagreement and 5 meaning a strong agreement, teachers and students expressed their views on whether students have opportunities to deepen knowledge through various experiences. Their responses were summarized and presented in figure 5.

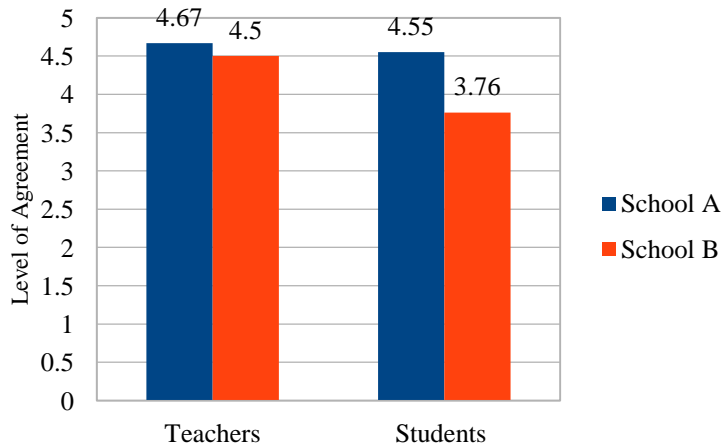


Figure 5. Existence of Opportunities to Deepen Knowledge

As shown in Figure 5, teachers showed a strong positive support for the existence of opportunities for students to deepen knowledge. No big difference is observed between teachers in School A and B, averaging 4.67 and 4.50 respectively. A sharp difference however exists in students' ratings with School A showing more positive support than School B with an average 4.55 and 3.76 respectively. This indicates that students in School A get more opportunities than those in School B. Since School A is run on IPP model which takes experiential learning as its integral part, it can be argued that this school is more likely to contribute to holistic education. In fact, Wong, Green and Wan (2012) found out that education anchored on experiences has been fruitful in bringing the Jesuit mission of expanding knowledge in service of humanity.

In order to ascertain whether there are any significant differences in the two schools as to whether teaching and learning experiences influence holistic education, the researcher ran an independent t-test to compare students' ratings based on their level of agreement with various statements on a five point scale where 1 represented a strong disagreement and 5 represented a strong agreement. The results were summarized in Table 7.

Table 7***Influence of Learning Experiences on Holistic Education***

	Group Statistics						Test Statistics		
	School A			School B			t	df	Sig. 2-tailed
	N	Mean	Std. Dev.	N	Mean	Std. Dev.			
Students have opportunities to deepen knowledge through class participation, visits, role playing and experiments	42	4.55	0.67	45	3.76	1.33	3.53	65.83	.001
Class participation, visits and experiments helps students improve academic performance	42	4.45	0.63	45	4.13	1.20	1.57	67.71	.122
Physical activities such as sports and manual work help students to remain physically fit	42	3.95	0.82	45	4.18	1.01	-1.14	85	.258
Activities students engage in at school help them to acquire values such as honesty and respect	42	3.76	0.82	44	3.39	1.22	1.68	75.48	.098
Spiritual activities students engage in at school develop in them values such as compassion	42	4.48	0.63	43	3.42	1.30	4.80	61.35	.000

Table 7 shows that there is a statistically significant difference between respondents' ratings in School A and B with regard to whether students have opportunities to deepen knowledge through various experiences designed by the teacher, $t(65.83) = 3.53$, $p = .001$ which is less than the significance level of .05 selected for this study. School A and School B averaged 4.55 and 3.76 respectively. This means that Students in School A get more opportunities or have a better use of those opportunities to deepen knowledge than those in School B. However, with regard to whether those experiences contribute to various aspects of holistic education, no statistically significant difference was observed in the two schools except with regard to the likelihood that spiritual activities students engage in develop in them values such as compassion, $t(61.35) = 4.80$, $p < .001$. At the significance level of .05 and a $p < .001$, the results imply students in school A gain more from spiritual activities that they engage in. Those activities may help them develop spiritual values such as compassion.

In an open-ended question on ways in which various experiences contribute to holistic education, some students said that spiritual activities they engage in at school such as prayer groups help them to develop good values such as love, humility and helpfulness. Also the day-to-day interactions with students, staff and administration help them develop social values and discipline that is needed in the society. Several students reported that clubs help them discover their talents and that group work and sports activities designed by teachers help them help each other and develop the teamwork spirit. Other respondents said that events such as cultural day help them develop teamwork, talents, creativity, innovation, and entrepreneurial skills. A student said that learning experiences such as class visits, participation, role playing and experiments help students to become more active in learning.

The role of active participation in learning has also been highlighted by other studies. For example, in a study examining how Australian schools make effort to maintain the Jewish heritage through annual experiential religious education camps, Zehavit and Suzanne's (2017) suggested that an experience that leads to growth does not consist in just transmitting knowledge but also in giving students opportunities to participate actively. The study revealed that students had opportunities for hands on experiences in various ways leading them to growth. Similarly, in another study examining the relationship between students' participation and academic performance, Starmer, Duquette and Howard (2015) found that full participation in the course was related to higher examination scores and the achievement of higher levels of learning. There is therefore a need for teachers to seek ways of increasing students' participation and engagement so as to help learners develop deeper understanding of what they learn. Cultural days for example should be encouraged because they offer an opportunity for students to showcase their talents, creativity and learn from each other. Thus, learning experiences can be designed to foster holistic development.

4.6 Role of Students' Reflection in Stimulating Holistic Education

The research question number three sought to know how students' reflection on experiences stimulates holistic education. The researcher inquired the extent to which teachers facilitate students' reflection, and how that reflection contributes to holistic education. On a scale from 1 to 5 with 1 representing a strong disagreement and 5 representing a strong agreement, teachers were asked to indicate whether students have

opportunities to engage in group discussions, debates and personal reflection on what they learn. Their responses are summarized in figure 6.

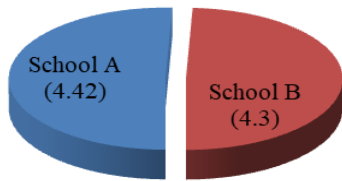


Figure 6. Existence of Opportunities to Reflect on Experiences

It can be observed from Figure 6 that teachers in both schools show a big positive support for the existence of opportunities for students to reflect on their experiences. The difference in the mean ratings among teachers school A and B is minimal and not significant as represented by 4.42 and 4.3 respectively. Thus, reflection is promoted in teaching and learning process at both schools. This is also confirmed by the responses of students on the same item as shown in Table 8.

Table 8

Whether Reflection Contributes to Holistic Education

	Group Statistics						Test Statistics		
	School A			School B			t	df	Sig. 2-tailed
N	Mean	Std. Dev.	N	Mean	Std. Dev.				
Students have opportunities to engage in group discussion, debates, personal reflection	42	3.95	1.03	44	3.91	1.10	0.19	84	.851
Discussions, debates, personal reflection helps improve academic performance	42	4.26	0.59	44	3.86	1.23	1.93	62.21	.058
Reflection in physical activities such as sports and manual work help students to perform them better and keep fit	42	3.79	0.84	43	3.84	1.19	-0.23	75.59	.819
Reflecting on experiences at school help students internalize values such as honesty and respect	42	3.71	0.71	42	3.43	1.29	1.26	63.65	.213
Personal reflection during spiritual activities help students to develop values such as compassion	42	4.17	0.66	42	3.45	1.27	3.23	61.54	.002

As shown in Table 8, the p-value ($p = .851$) is greater than the significance level of .05. This implies that there was no significant difference between respondents' ratings in School A and B on whether students have opportunities to engage in group discussion, debates and personal reflection, $t(84) = 0.19$, $p = .851$. Students in school A and B averaged 3.95 and 3.91 respectively which is a moderate support for the existence of opportunities to engage in group discussions, debates, and personal reflection. Equally, although there is a moderate positive support, there was no significant difference observed with regard to whether reflection on experiences leads to various aspects of holistic growth. The only significant difference was observed on the potential of reflection during spiritual activities to help students develop values such as compassion, $t(61.54) = 3.23$, $p = .002$ which is less than .05 significance level. School A averaged 4.17 against 3.45 in school B. This indicates that students in school A benefit more from personal reflection during spiritual activities than those in school B. Thus, while students in the two schools generally benefit from discussions, debates, and personal reflection, generally, no school seem to do better than the other.

The researcher also sought to identify ways in which reflection on experiences contributes to holistic education. A teacher respondent asserted that reflection builds a habit of reflecting back before taking any decision. Another teacher said that reflection allows students to realize how helpful they are to the society. Further, a student respondent noted that reflection develops in students the spirit of confidence in whatever they do and refrain from being afraid or shy. The importance of class discussion was highlighted by Green (2012) who noted in the study that class discussions can be used as another strategy to engage students to be active participants in their learning of science topics while also allowing students to demonstrate oral speaking skills in a respectful learning environment. This also concurs with Celio, Durlak and Dymnrcki (2011) who found that reflection increased confidence and engagement and created civic knowledge and social responsibility among students.

It was also highlighted that reflection leads to better understanding which in turn leads to better performance. This is in conformity with Ndiewo, Raburu and Aloka's (2016) study that found a significant relationship between learner reflection and academic performance in Kenyan secondary schools. Stressing the importance of reflection in learning, a responded was reported saying that through reflection students can express their own point of view and get their own understandings of what they see around them. Another respondent added that

reflection adds value to what students do in class and allows some students to learn from their peers. It is worth noting that some respondents in the study also pointed out that reflection helps students speak out their emotional needs, sharpens their minds, enhances thinking ability, builds maturity, and leads to better understanding.. This is in agreement with Dominuco’s (2000) view that, by reflecting on their experiences, students get better understanding of what is being studied and appreciate its implication for the on-going search for truth. Thus, reflection can stimulate holistic education.

4.7 Extent to which Actions Motivate Holistic Education

The fourth research question sought to examine whether students’ actions motivate their holistic growth. Actions are an external manifestations of an internal human growth based on experience reflected upon (Jesuit Institute, 2014). The researcher also sought to find out whether students manifest some positive change as a result of what they learn and whether that change can motivate further holistic growth. In order to establish this, the researcher first wanted to inquire if students have opportunities to practice what they learn.

4.7.1 Whether students practice what they learn.

Table 9 shows views on whether students have opportunities in the school to practice what they learn. Both teachers and students were asked to indicate their response by a Yes or No as shown in the table.

Table 9

Students Practice of what they learn

	Views	Teachers				Students			
		School A		School B		School A		School B	
		N	%	N	%	N	%	N	%
Do students practice what they learn?	Yes	11	91.67	7	77.78	22	53.66	19	51.35
	No	1	8.33	2	22.22	19	46.34	18	48.65
	Total	12	100	9	100	41	100	37	100

Majority of respondents, as Table 9 shows, agree that students have opportunities in the school to practice what they learn. Teachers have a high percentage 91.67 and 77% for A and

B respectively while students have a low percentage of 53.66% and 51.35% for School A and B respectively. It can also be observed that the percentage of respondents who agreed is slightly higher in School than in School B. This might mean that School A gives more opportunities than School B for students to put their knowledge into practice. One can therefore deduce that School A offers to students more opportunities to practice what they learn.

When asked to name activities or opportunities offered to students which allow them to put into practice what they learn, respondents mentioned clubs activities, laboratory experiments, school and class competitions, exhibitions, showcases, and other activities occasioned by school events. Some students admitted to meet challenges in ordinary life that require the use of what they have learned in class. In classroom situation, one student noted that when teachers give exams and tests, they ask students to practice and explain clearly what was taught and how it can be used outside. It was even noted some students took initiative to create prayer groups based on what they acquired. However, few other opportunities were repeatedly said to be provided in one school and lacking in the other. For example, several respondents in School A noted that cultural days and yearly school magazines present in the school give students opportunities to develop and share their knowledge, talents, and creativity. Cultural days are organised yearly where students, staff members and parents have a day of various activities including games, dances, and creative arts.

4.7.2 The way students' actions motivate holistic education.

Action entails transformation. Students must not only practice what they learn but they must also be compelled to act upon their convictions. Actions might manifest as a concrete activity, or take the form of an understanding, a disposition, a decision, a belief, a commitment, or simply the impetus to try something else that would build on the previous knowledge (Mountin & Nowacek, 2012). Teachers and students respondents in this study were asked to indicate whether students are positively transformed by what they learn. Their views were expressed by levels of agreement to various statements on a five point scale with 1 meaning a strong disagreement and 5 meaning a strong agreement. Results have been computed, compared and summarized in Table 10.

Table 10*Students' Manifestation of a Positive Change (Students' Views)*

	Group Statistics						Test Statistics		
	School A			School B			t	df	Sig. 2-tailed
	N	Mean	Std. Dev.	N	Mean	Std. Dev.			
Students in the school manifest some positive change as a result of what they learn	41	3.46	0.9	42	3.17	1.41	1.15	69.68	.256
Students in this school study harder and this improves their academic performance	41	4.41	0.59	43	3.53	1.37	3.85	57.69	.000
Students in this school have high level of participation in physical activities and sports	41	3.32	1.11	44	3.41	1.42	-0.33	80.52	.739
Students in this school are honest and respect each other as a result of what they learn	41	3.39	0.74	44	3.05	1.26	1.56	70.33	.124
Students in this school are compassionate toward one another and support each other	41	4.05	0.77	44	3.16	1.24	4	72.81	.000

As shown in Table 10 students were asked to indicate whether they manifest some positive change as a result of what they learn. Their ratings show a moderate positive support, 3.46 for School A and 3.17 for School B. Although the average score is slightly higher in school A, the mean difference between the two schools is not statistically significant, $t(69.68) = 1.15$, $p = .256$ which is greater than .05 confidence level. A significant difference however exists in some instances. For example, through their ratings, students in School A admit to study harder and improve their academic performance than those in School B, $t(57.69) = 3.85$, $p < .001$ which is less than .05 significance level. The same is also observed with spiritual growth where students in School A admit to be more compassionate and supportive towards one another than those in School B, $t(72.81) = 4$, $p < .001$ which is less than .05 confidence level. Teachers' ratings on the same items represent the same pattern as shown in Table 11.

Table 11***Students' Manifestation of Positive Change (Teachers Views)***

	Group Statistics						Test Statistics		
	School A			School B			t	df	Sig. 2-tailed
	N	Mean	Std. Dev.	N	Mean	Std. Dev.			
Students in the school manifest some positive change as a result of what they learn	12	4	0.85	10	3.6	1.35	0.85	20	.408
Students in this school study harder and this improves their academic performance	12	4.33	0.49	9	3.56	1.13	2.14	19	.045
Students in this school have high level of participation in physical activities and sports	12	4	1.28	10	3.7	0.82	0.64	20	.531
Students in this school are honest and respect each other as a result of what they learn	12	4.33	0.49	10	3.7	0.48	3.03	20	.007
Students in this school are compassionate toward one another and support each other	12	4.33	0.49	10	3.8	0.92	1.74	20	.097

Using a significance level of .05, Table 11 indicated that, while teachers show more positive support than students, there is no statistical significant difference between the teachers' mean rating in School A and in School B with regard to positive change in students, $t(20) = 0.85$, $p = .408$ which is greater than .05. Thus, while school A seem to have a more positive support than school B as shown by the average of 4 and 3.6 respectively, the difference is not significant. However, a statistically significant difference exists in terms of academic performance and acquisition of values where teachers in School A admitted that their students work harder to increase their academic performance, $t(19) = 2.14$, $p = .045$, as well as being more honest and respectful towards one another than those in school B, $t(20) = 3.03$, $p = .007$. In both cases, the p-value is less than the proposed significance level of .05. What is common for both students and teachers' ratings is that school A has a better academic performance than school B.

The performance at national examinations confirms the difference in academic performance between the two schools as shown in table 12.

Table 12***Academic Performance at National Examination***

Yrs./Schools	Division I		Division II		Division III		Division IV		Total	
	A	B	A	B	A	B	A	B	A	B
2014	29	16	0	12	0	0	0	1	29	29
2015	37	23	1	8	0	4	0	1	38	36
2016	44	18	0	5	0	2	0	0	44	25
Total	110	57	1	25	0	6	0	2	111	90

(Source: Academic Office of School A and School B in 2017)

Table 12 shows that for three consecutive years, in School A, 110 out of 111 representing 99.1% were classified in Division I (first class). This is against 57 out of 90 candidates in School B representing 63.3% who were in the same division. In other lower divisions, only one candidate belonging to School A was reported in division II against 25 candidates in School B. While no candidate belonging to school A was reported in division III and IV, six candidates belong to school B were in division III and two candidates in division IV. This implies that school A performs better academically than school B.

Teachers and students respondents in this study were also asked to indicate ways in which what students learn transforms their lives and how various activities they undertake contribute to holistic education. A transformed life is often manifested by actions that one engages in. Actions that were identified include charitable activities during Lenten season done by students as they give cloths, food and other materials to the unfortunate ones. It was also mentioned by a student respondent that students in the school were loving, caring, and visiting each other thereby strengthening their friendship and creating a sense of belonging. These values are also acquired during sports activities in which, as one respondent admitted, “students learn to love and respect one another thereby building teamwork and friendship.” One teacher admitted that students are involved in doing different activities outside the school but which are related to what they got from the classroom bench. Other respondents admitted to be actively engaged in activities such as clubs, singing in choir, and forming prayer groups. Clubs such debate, writers, modern dance, traditional dance, scouts,

environment, and anti-drug are also available opportunities not only to learn and apply what is learned but also to grow.

Those activities that students undertake while they are a sign and an opportunity for growth, they also contribute to further growth. It was for example noted by a student that study groups help in enhancing compassion and concern for the other. Echoing the same, another student has highlighted the role of group activities by saying that “activities done in groups strengthen our friendship and teach us some moral values such as respect, honesty, and loyalty.” It was also noted by some students that personal researches done improve their academic performance and that clubs activities they participate in help develop in them flexibility, confidence and innovation and take new initiatives. Another teacher respondent shared that students help the school administration to ensure discipline with elder students showing care for the younger ones. Thus, activities that students undertake contribute to some aspects of their holistic growth.

4.8 Effect of Students’ Evaluation on Holistic Education

In effort to provide holistic education, evaluation activities carried out must also be holistic. Holistic evaluation goes beyond the common practice of measuring the mastery of knowledge and skills and, as the Jesuit Institute (2014) noted, periodic evaluation of students’ growth in attitudes, priorities and actions is essential. Consequently, teachers must evaluate the whole person using effective methods. The fifth research question sought to establish the effect of holistic evaluation on holistic education. The researcher first sought to determine how teachers evaluate the character of students, an important aspect of holistic growth. Secondly, it sought to find out ways in which evaluation contributes to holistic education.

4.8.1 Whether teachers evaluate students’ character.

Students and teachers respondents were asked to indicate whether teachers evaluate the character of students. They were asked to indicate their responses by Yes or No. Figure 7 summarizes teachers and students views in the two schools.

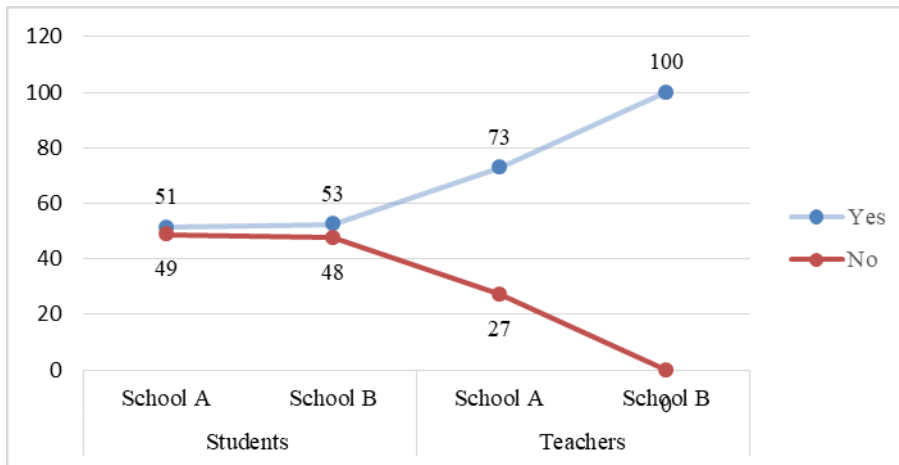


Figure 7. Whether Teachers Evaluate the Character of Students

Figure 7 shows different views regarding whether teachers evaluate the character of students. A slight majority of students, 51 % in School A and 53% in School B, agreed that teachers evaluate the character of students while another considerable number, 49 % and 48 in School A and B respectively disagreed. Yet, the trend changes with the views of teachers whose majority 73% and 100% in School A and B respectively, admit to evaluate the character of students. Thus, based on the results presented in Figure 7, while majority of respondents admit that teachers evaluate students’ character, it cannot be conclusively admitted that one school does better than the other in evaluating the character of students.

However, in an open-ended question, a difference emerged when it came to ways in which the evaluation of students’ character is carried out. Common to respondents in both schools was the idea that the discipline or conduct of students is graded on a score card and this is considered alongside academic grades when promoting students from one class to the next. Thus, students who misbehave are rebuked and incur loss in conduct grades. It was also noted that students’ evaluation meetings are regularly scheduled where teachers meet and share what they know about students and deliberate on the best course of action to help students based on their observations. This is in addition to group work, teacher-student chats and games, and various responsibilities given to students in the school leadership as means to mould their character and make them responsible for their growth. Therefore, both schools make effort to evaluate the character of students.

Nonetheless, a particular event known as the consultation day was repeatedly mentioned by respondents in School A as a great opportunity to evaluate students

holistically. It is a forum where parents, students and teachers or tutors come together on a one-on-one basis to discuss the progress, growth and challenges of every student. A student expressed this saying that teachers evaluate the character of students during consultation days where they talk to parents on issues concerning their child both at school and at home. Another student asserted that annual consultation help students develop their discipline and academic performance. In the same line, a teacher respondent admitted that consultation day is an opportunity to evaluate student's achievement in academics, physical health, attitudes and values. Thus, through consultation day, students' talents can be identified and more opportunities for growth charted. It is an opportunity to evaluate students in a special and holistic way.

4.8.2 How evaluation contributes to holistic education.

The researcher sought to know whether teachers evaluate everything they teach and whether that evaluation contributes to holistic education. Students were asked to rate various statements on a five point scale where 1 meant a strong disagreement and 5 meant a strong agreement. The students' mean ratings were computed, compared and are summarized in table 13.

Table 13

Contribution of Evaluation to Holistic Education

	Group Statistics						Test Statistics		
	School A			School B			t	df	Sig. 2-tailed
	N	Mean	Std. Dev.	N	Mean	Std. Dev.			
Teachers evaluate everything they teach in and outside class	41	3.59	0.81	44	2.93	1.19	2.95	83	.004
Evaluation feedback helps students improve academic performance	41	4.12	0.68	44	3.95	0.96	0.92	83	.360
Evaluation of physical activities and sports helps enhancing students' fitness	41	3.63	1.07	44	4.05	1.16	-1.7	83	.093
Evaluation of students' behaviours helps them develop values such as honesty and respect	41	3.71	0.84	44	3.55	1.19	0.73	77.63	.469
Evaluation of spiritual activities helps in stimulating values such as compassion	39	4.23	0.67	44	3.23	1.26	4.62	67.08	.000

Table 13 shows a significant difference between School A and B on whether teachers evaluate everything they teach because $t(83) = 2.95$, $p = .004$ and it is less than .05 significance level. School A averaged 3.59 (SD= .81) while school B averaged 2.93 (SD= 1.19). Thus, teachers in School A seem to do a more comprehensive evaluation than those in school B. No significant difference was observed concerning whether evaluation contributes to various aspects of holistic education. The only, significant difference was observed regarding whether evaluating spiritual activities helps in stimulating values such as compassion. Students in School A rated the item significantly higher than school B, $t(67.08) = 4.62$, $p < .001$ which is less than .05 significance level for this study. This implies that students in school A showed a more positive support and probably benefit more from evaluation of spiritual activities.

Respondents were also asked to suggest ways in which evaluation can be better used to influence holistic education. A teacher respondent said that evaluation is not a court designed to find and punish the guilty but should be a way of discovering the weaknesses or difficulties in learning and work on them. Another teacher stated that evaluation gives room for students to express their views and learn how to organize themselves in preparing events such as festivals. Some respondents said that evaluation encourages students to improve and correct their mistakes for a better future. A respondent stated that students are given feedback on their progress in the acquisition of good behaviours through encouragement and appreciation while another noted that displaying evaluation results promote competitiveness among students. Indeed, evaluation feedback is to be given due consideration as noted from Bahati et al (2016) that, often, teachers' oral and written feedback on students' assessment were neither understood nor delivered correctly. A good feedback improves teaching and learning. As Nicol and Macfarlane (2006) allude, teachers must transmit feedback messages to students about what is right and wrong in their work, about its strengths and weaknesses, and students can use this information to make subsequent improvements.

One teacher said that evaluation can arouse a sense of heroism with awards. Thus, teachers who congratulate and encourage students for their progress are on the right path toward holistic teaching and learning. Teachers can also benefit from evaluation since, as some respondents said, it helps them to know where they can improve in their teaching. For example, a respondent said teachers should learn to ask questions that help students to think

for themselves rather than just applying formulas. An evaluation that has the potential to contribute to holistic education is an evaluation that is itself holistic. For the sake of holistic education therefore, evaluation in schools should transcend academic achievement because, as one respondent said, “it is by evaluating academic performance and character or behaviour of students that evaluation can contribute to holistic education.”

4.8.3 Level of holistic education in schools.

In order to have a general glimpse of the level of holistic education in the studied schools, the researcher asked respondents to rate the level of holistic education in their respective schools. On a score of 1 to 10, with 1 being the lowest level and 10 the highest, the ratings were computed, compared and results are summarized in table 14.

Table 14

Level of Holistic Education in the Schools

Group Statistics

	Students					Teachers			
	Schools	N	Mean	Std. Dev.	S. E. Mean	N	Mean	Std. Dev.	S. E. Mean
Level of holistic education	A	40	7.34	1.12	0.18	12	8.21	0.72	0.21
	B	42	4.68	2.47	0.38	9	6.78	1.39	0.46

Independent Samples Test

			Levene's Test for Equality of Var.		t-test for Equality of Means						
			F	Sig.	t	df	Sig. (2-tailed)	Mean Dif.	S. E. Dif.	Lower	Upper
Level of holistic education	Students	Equal variances assumed	29.71	.000	6.21	80.00	.000	2.66	.43	1.81	3.51
		Equal variances not assumed			6.31	57.83	.000	2.66	.42	1.81	3.50
	Teachers	Equal variances assumed	5.38	.032	3.07	19.00	.006	1.43	.47	.45	2.41
		Equal variances not assumed			2.81	11.21	.017	1.43	.51	.31	2.55

Using a confidence level of .05, Table 14 shows a statistically significant difference between students' ratings in School A and B with regard to the level of holistic education, $t(57.83) = 6.31$, $p < .001$ which is less than .05 significance level used for the study. Asked to attribute a

score out of 10, students in School A averaged 7.34 (SD = 1.12) while those in School B averaged 4.68 (SD = 2.47). This implies that, school A has a significantly higher level of holistic education than school B. Similarly, teachers' views confirmed those of students because a statistically significant difference was also observed, $t(11.21) = 2.81$, $p = .017$ which also less than .05 significance level. Results suggested that School A gives more opportunities for holistic growth of students than School B. Since school A has adopted IPP model, one may attribute the significantly higher ratings in School A to IPP model.

However, one wonders if there is anything fundamentally enshrined in IPP that facilitates holistic growth of students. Similarly, aware that the aims of Jesuit education such as intellectual excellence, moral and spiritual development, and social justice are also shared by other educational institutions, Mountin and Nowacek (2012) wondered whether there is any distinctive Jesuit means toward those ends. Indeed that distinctive mark exists. And, as Mountin and Nowacek (2012) noted, it is a systematic cycle of context, experience, reflection, action and evaluation. If well unpacked and well used, it engages students in deep learning. Unfortunately, many teachers especially in a school that did not adopt IPP were not familiar with the model as it shown in Figure 8.

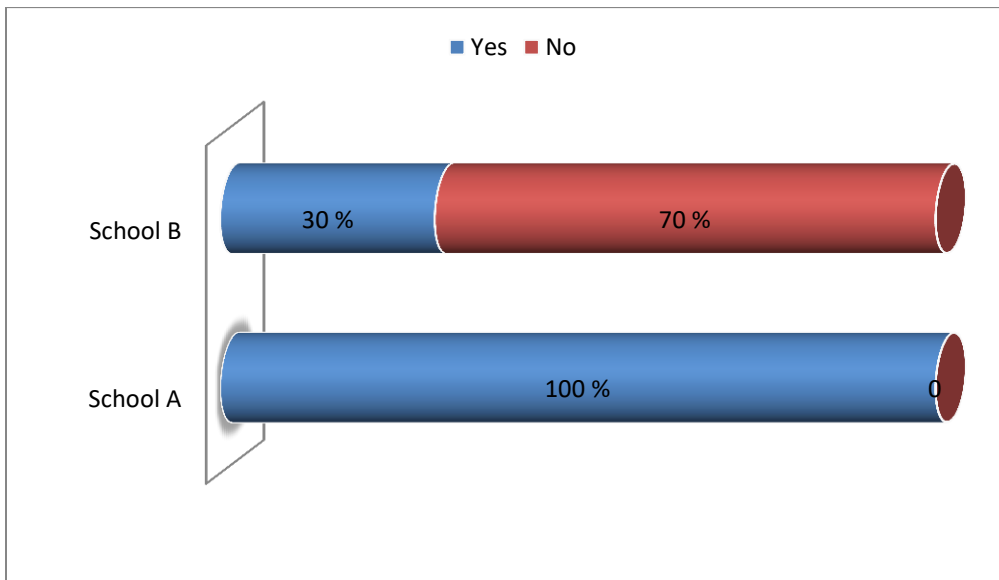


Figure 8. Familiarity of Teachers with IPP

Figure 8 shows teachers' responses on the question whether they were familiar with IPP. All teachers who responded in school A (100%) accepted that they were familiar with IPP. Only 30% in school B accepted to be familiar with IPP while 70% were not familiar with IPP.

These data are not surprising because school A has adopted IPP giving its teachers opportunities to interact with the model while school B did not adopt the model. In order to benefit from the model, there is need to get in contact with it and adopt its principles.

When asked to explain in which ways IPP contributes to holistic education, teachers answered that it does so first by seeking collaboration and partnership. The IPP involves all partners of education namely administration, teachers, parents, students, and school community. One teacher was reported saying that IPP contributes to holistic education by involving students and teachers in planning all school activities. Another teacher further said that IPP strives to take care and show concern for each student individually not as a group. The study revealed that IPP helps to understand students personally and that helps them to reinforce their strengths and improve on their weaknesses.

It was also noted by a teacher that by going deeper into students' background, IPP encourages the staff to be closer to the needs of students. The study revealed that IPP leads to holistic education by championing the principle of *magis*, the continual improvement for excellence. For example, a respondent was quoted saying that "by practicing *magis* and teaching its concept regularly," IPP leads to holistic growth. Since it is founded on an education tradition that invites innovation, another respondent noted, IPP emphasizes reading the signs of times and adaptation of teaching and learning to changing times.

The value-orientation of IPP was also emphasized by some respondents. For example, a head teacher was quoted saying that,

"There is no aspect of education, not even the so-called hard sciences, which is neutral. All teaching imparts values. Each academic discipline, when honest with itself, is well aware that the values transmitted depend on assumptions about the ideal human person and the ideal human society which are used as the starting point."

The IPP therefore considers development of all aspects of students' growth. This was emphasised by a respondent who was reported saying that the heart of IPP is the formation of the whole human being who is formed to serve others. Put differently, another respondent was quoted saying that it focuses on bringing about change in students' intellect, psycho-social behaviour and train them in Christian values.

The IPP also places emphasis on freedom. As one head teacher noted, it consists in "forming students liberated from the constraints of ignorance, prejudice, limited horizons,

and distorted values and desires.” By extension, Ignatian pedagogy is a pedagogy that can free students of anything that can prevent them from becoming what they were meant to be. The IPP is therefore a pedagogy that leads to transformation. And as Dominuco (2000) says,

“what students do as a result under the teachers’ direction, while it may not immediately transform the world into a global community of justice, peace and love, should at least be an educational step in that direction and towards that goal even if it merely leads to new experiences, further reflection and consequent actions within the subject area under consideration” (p. 248).

The transformational nature of IPP therefore, while it may not have immediate effects, it eventually leads to change in the long-run.

4.9 Challenges in Implementing IPP in Schools

The research question six sought to find out whether there are any challenges met in implementing IPP for holistic education. On the basis that some teaches were not familiar with IPP, the researcher immediately identified the lack of familiarity with IPP as a first challenge to its implementation. However, there are other challenges that impede the implementation of IPP for holistic education. Both students and teachers were asked to identify challenges that impede holistic education.

4.9.1 Students views on challenges in holistic education.

Students were asked to indicate whether they have noticed any difficulties in the school that impede holistic teaching and learning. Their views are summarized in Figure 9.

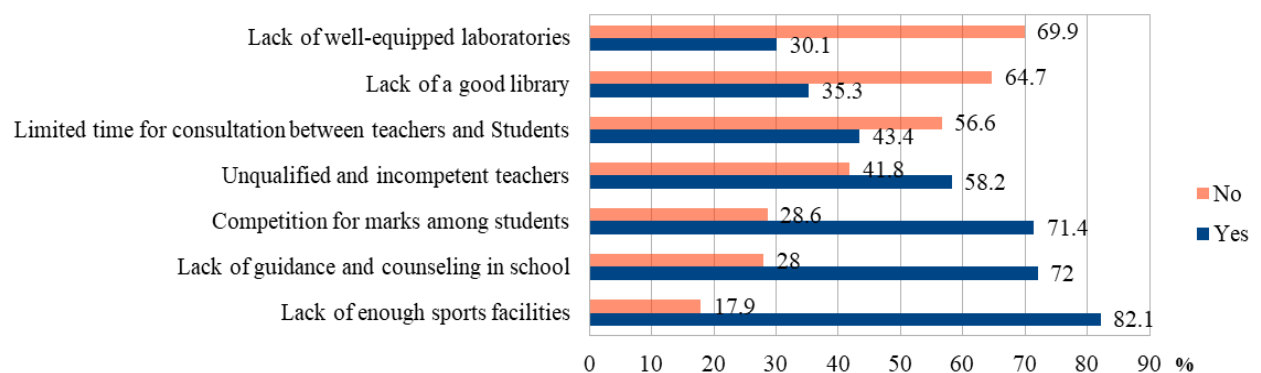


Figure 9. Students’ Views on Challenges in Holistic Education

Figure 9 shows that there are many challenges that impede holistic education in schools. The main challenges that were voted by majority of respondents are lack of enough sports

facilities at 82.1%, followed by lack of guidance and counselling in schools at 72%, competition for marks among students at 71.4%, and unqualified and incompetent teachers at 58.2%. Some of these challenges were also echoed by Katola and Muindi (2013), Haule (2011) and Bizimungu (2012) who found that competition for academic excellence, unqualified and inexperienced teachers, and lack of guidance and counselling inhibited quality education in secondary schools in Kenya, Tanzania and Rwanda respectively.

Students were also asked to enumerate other challenges encountered in holistic education. Other challenges that impede the provision of holistic education as stated by students include lack of strictness by some teachers, limited financial resources, poor students’ participation in school activities, ignorance of students’ talents and natural abilities, poor communication and collaboration between students and teachers and parents, lack of enough opportunities to apply acquired knowledge, favouritism, and, most importantly, lack of knowledge of holistic education by teachers. If all these challenges are not mitigated the provision of holistic education is threatened and IPP would hardly bear fruits.

4.9.2 Teachers views on challenges in implementing IPP for holistic education.

Teachers were also asked to indicate their views on challenges encountered in holistic education. Figure 10 summarizes their views.

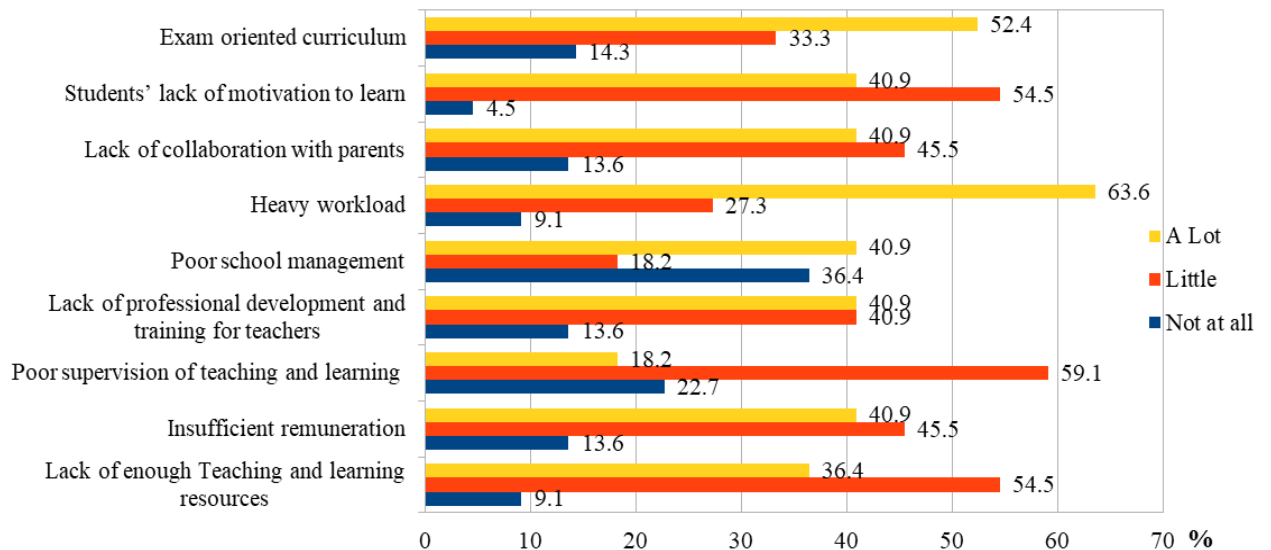


Figure 10. Teachers’ Views on Challenges in Holistic Education

Figure 10 presents views of teachers on challenges that impede holistic education. Teachers were asked to indicate at which magnitude some difficulties were observed. While their

views diverge some difficulties are dominant. For example, majority of teachers showed a lot of concern regarding heavy workload (63.6%), and exam oriented curriculum (52.4%). Another majority also showed moderate concern for poor supervision of teaching and learning (59.1%), students' lack of motivation (54.5%), and lack of enough teaching and learning resources (54.5%). A considerable number saw lack of collaboration with parents (45.5%), insufficient remuneration (45.5%), and lack of professional development (40.9%), students' lack of motivation (40.9%), and poor school management (40.9%) as impediments to holistic education. However, one would expect that professional development would be voted as a major challenge given its role in upgrading teachers' skills and competence. It is strange that it was not highly voted as a major challenge to holistic education. It is through professional development that teachers get hands-on skills that help them improve teaching and learning. Referring to IPP, Dominuco (2000) reiterated the need for continuous professional developing by saying that the lack of know-how is a major obstacle to any effective change in teacher behaviour.

When asked to further enumerate other challenges encountered, teachers insisted on lack of enough time to discharge all their responsibilities, poor infrastructure, and lack of career guidance, political policies, mass media, and complexity of students' backgrounds. This confirms the findings of Haule (2011), Bizimungu (2012), and Bizimana and Orodho (2014) that lack of instructional materials and resources, lack of parents' support and participation, and lack of guidance and counselling impede quality education. While those challenges are not unique to this study, an attention must be paid to them so that their negative effects on holistic education can be minimised.

4.10 Strategies to Enhance the Implementation of IPP in Schools

In the light of encountered challenges, the seventh research question sought to identify strategies that can be put in place to enhance the implementation of IPP for holistic development in teaching and learning. While there is no one solution to challenges that are encountered in holistic education enterprise, respondents in this study identified several strategies to enhance holistic education. However, students were first asked to rate their level of agreement with some strategies on five point scale where 1 meant a strong disagreement and 5 meant a strong agreement. Their views are summarized in Table 15.

Table 15***Students' Views on Strategies to Enhance Holistic Education***

Strategies to enhance holistic education	N	Mean	Std Dev
Finding more qualified teachers	86	4.12	1.12
Provision of adequate learning materials	86	4.19	1.14
Collaboration between parents and teachers	85	3.09	1.36
Involving students in planning school activities	86	4.36	1.03

As results in Table 15 show, involving students in planning school activities is the highest rated strategy with 4.36 (SD=1.03). This indicates the desire of students to participate in school activities since this participation was also seen as a challenge to holistic education. Students also agreed that finding more qualified teachers and provision of adequate learning materials are strategies that can enhance holistic education as indicated by the mean rating of 4.12 and 4.19 respectively. Strangely, however, while one would think that parents' collaboration is a strategy to enhance holistic education it was the lowest rated by students with an average of 3.09 (SD=1.36). This indicates a low level trust from students which needs to be improved if they are to benefit from teaching and learning activities for their holistic growth.

From an open-ended question and interviews, students suggested other strategies that can be used to solve encountered challenges in enhancing holistic education. These strategies were categorized according to academic, emotional, physical, and spiritual needs of students. First, in relation to academic improvement, students suggested, among other things, to involve students in decision making, to enable students to practice what they learn through internship, to build more learning facilities, to provide learning materials such as textbooks, and to take into account students' capabilities, needs, and limits. One student also noted that collaboration between students and parents can improve academic excellence.

Second, in relation to emotional development, students repeatedly suggested to hire school counsellors and provide guidance and counselling services. For example, one student said that the school should provide a counsellor who can help students deal with their personal problems because sometimes, students are not comfortable enough to talk to

teachers because they know they will not understand them. Many students insisted that teachers should try and understand students before taking any decision. This implies that some students did not feel understood by teachers in their various struggles at school. This is why some students suggested that teachers should have more conversation with students so that they can hear more from them and know their problems. It was also suggested that a culture of respect and fairness between teachers and students be fostered. This was probably in response to favouritism or unequal treatment identified as challenges impeding holistic education in schools.

Third, with regard to physical growth, there was an expressed need to increase sports facilities and strengthen participation in sports and physical activities, increase the time for sports. It was suggested by several students that schools should give to girls the same sports opportunities they give to boys and to let young students participate in general sports. Indeed, it was observed that boys have more participation than girls and that the young students are not given chance by their elders to fully participate in general sports activities. This is why, as several students respondent said, there is need provide enough sports facilities to accommodate the whole school. Fourth, it was suggested that spiritual growth can be enhanced by increasing spiritual activities, providing spiritual facilities like chapel, increasing days of prayer, providing spiritual guidance, and respecting religious freedom. The schools were also encouraged to organise spiritual talks and retreats for students.

Teachers and head teachers were also asked to suggest ways in which the implementation of IPP can be enhanced for holistic development of students. The research revealed that about 70% of teachers in non IPP-run schools were not familiar with IPP. From this finding, the researcher realized that the first strategy to enhance the implementation of IPP for holistic education is therefore to increase familiarity with it. However, on a five point scale with 1 meaning a strong disagreement and 5 meaning a strong agreement, teachers were also asked to rate some strategies to enhance holistic education. Their views are summarised in Table 16.

Table 16

Teachers' Views on Strategies to Enhance Holistic Education

Strategies to enhance holistic education	N	Mean	Std. Dev
Augmenting staff members	21	3.38	1.36
Organizing training programs for teachers	22	4.32	1.17
Provision of adequate learning materials	22	4.36	1.18
Collaboration with other schools, teachers and parents	22	4.45	1.18
Involving students in planning school activities	22	4.05	1.36

From table 16, it can be observed that augmenting staff members was the lowest rated as a strategy to enhance holistic education (3.38). This may imply that there is no shortage of staff members in their schools. However, given the high rating given to heavy workload as a challenge to holistic education, one would expect that augmenting staff members would be highly rated as a solution since that would reduce their workload. The moderate support for augmenting staff members indicates that it is not the first strategy for holistic education improvement.

Concerning other strategies, teachers showed a strong support for organizing training programs (4.32), providing adequate learning materials (4.36), involving students in planning school activities (4.05), and collaborating with other schools, teachers and parents (4.45). Staff development is also an important aspect in holistic education and teachers showed a strong support for it. Training programs should include elements of new or different pedagogies such as IPP which is less known especially in Non-Jesuit schools. Referring to JSEA (1993), Dominuco (2000, p. 270) reported that “staff development programs involving in-service training are essential in each school where IPP is used. And since teaching skills are only mastered through practice, teachers need not only explanation of methods, but also opportunities to practice them.”

Unlike students who rated this collaboration the lowest as a strategy for holistic education enhancement, teachers showed a strong support for it and rated it the highest. The high rating of collaboration signals the importance of putting efforts together for holistic growth of students. This concurs with both Bizimungu's (2012) who emphasized the role of

school-family partnership in curbing deviant behaviours in schools and Danisman (2017) who found positive effect of parents' involvement on students' educational achievement. While this effect may depend on the level of involvement, meaningful collaboration stimulates students' achievement not only in academic but also in physical, moral and spiritual growth.

When asked to suggest other ways in which holistic education can be enhanced, teachers alluded to educating parents on how to take care of their children, increasing study tours to boost life experiences, initiating programs of charity work outside school, and giving students' freedom to practice their religion. As Badjanova and Ilisko (2014) have noted, respecting learners' freedom in the process of education has the potential to inspire quality change in learners' development. It also suggested by a head teacher that holistic education can be enhanced in schools "by reading the signs of time discovering the cross-cutting issues of today's society and (globalisation, gender, family problems, terrorism, ecology, environment, religious diversity, technology) and including them in the school curriculum."

Teachers were also asked to suggest what various education stakeholders should do in order to enhance holistic education in schools. Their suggestions were categorised by role of the government, schools, teachers and parents. First, it was suggested that the government should provide teaching and learning materials such as books, computers and laboratories even to private schools. It should train teachers and other education stakeholders on the importance of holistic education. It should also improve the welfare of teachers by increasing their salaries.

Second, teachers suggested that in order to enhance holistic education, schools should organise regular seminars on special topics to upgrade teachers' skills. They are also to avail necessary materials to facilitate teachers' work. Schools were also asked to provide forums for discussion and dialogue between students and schools administrations. In addition, through their administrators, schools are encouraged to increased class visits and supervision of teaching and learning. Third, it was suggested that teachers get close to students so that they can share experiences that affect them. They were challenged to become more passionate about their work and care about every student individually through "cura personalis." A respondent also said that teachers should give real-life based experiences to students and should always endeavour to update their skills.

Parents were also asked with a strong emphasis to strengthen their collaboration with the school and share information about the kids with schools so that they can be better helped. They were asked harmonise with schools on appropriate values that should be transmitted to their children. In order to enhance holistic education, parents were also asked assist their kids after school and not leave the responsibility of education to teachers alone. It also worth noting that parents must be role models to their children, as one teacher said, stop transferring undesirable behaviours to their kids.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarises findings on the contribution of IPP to holistic education in private secondary schools in Kigali City, Rwanda. The aim of IPP is an integral development of the whole child. Its five elements namely context, experience, reflection, action and evaluation are believed to contribute to holistic education. This chapter summarizes findings on how those elements contribute to holistic education, challenges met in implementing holistic education for holistic education, and strategies that can be adopted to enhance holistic education in schools. In the light of finds, some concludes also are drawn. The chapter further recommends various actions that stakeholders can consider to enhance holistic education schools. Finally it gives areas of considerations for further research.

5.2 Summary of findings

This study was carried in two private secondary schools in Kigali. It sought first to know ways in which teachers' consideration of students' context influence holistic education. Second, it examined how teaching and learning experiences influence holistic education. Third, it sought to know how students' reflection in teaching and learning stimulate holistic education. Fourth, it explored the extent to which students' actions motivate holistic education. Fifth, it found out the effect of students' evaluation on holistic education. Sixth, it identified challenges encountered in implementing IPP in schools for holistic education. Finally, it examined possible strategies that can be put in place to enhance the implementation of IPP for holistic development.

The research adopted Yang's (2003) holistic theory of knowledge and learning as a lens through which holistic education can be examined. The theory holds that knowledge is a social construct consisting of three interrelated facets namely explicit facet which is theoretical and cognitive, implicit facet which is behavioural and practical, and emancipatory facet which is affective and value-laden. Other theories related to holistic education have also been critically reviewed. Those reviewed are cognitional theory, transformational learning theory, experiential learning theory and gestalt theory. In addition, empirical studies and other related literature were reviewed in relation to the research questions on the study.

This study used a collective case study, combining both quantitative and qualitative approaches to research. Head teachers, teachers and students participated in the study as respondents. Of the 132 samples respondents, 87.1% responded which was a reliable percentage for the presentation and analysis of findings. Document analysis guide, questionnaires, interview guide, and observation checklist were used to collect data in order to respond to research questions. Quantitative data was analysed quantitatively using SPSS version 23 and presented in tables and figures. Qualitative data was analysed thematically and concurrently with research questions. They were presented in narrative form to clarify, support, and explain quantitative data. Direct quotes of respondents' views were incorporated where necessary.

5.2.1 How teachers' consideration of students' context influences holistic education.

The researcher sought to know the extent to which a consideration of students' context by teachers contributes to holistic education. Students and teachers had diverging views on whether students' background is considered in teaching and learning process. While all teachers admitted to consider students' background, majority of students (57.5% and 83.7% in School A and B respectively) did not see their background considered. However, the number of students who thought that their background was considered by teachers was higher in school A than in school B shown by 42.5 % and 16.28 % in school A and B respectively.

When asked whether teachers take personal care and show concern for each students, a significant difference was found between the students' ratings in the two schools, $t(77.46) = 2.08$, $p = .041$ which is less than .05 significance level. School A rated significantly higher than school B in considering students' context. It was found that make efforts to know about students' health, feelings, family, behaviours and values in their teaching. However, they should not use their knowledge to the disadvantage of students as was the case in some instances where teachers were reported to pay much attention to students from rich families and ignored students from poor families.

When students were asked whether taking personal care and concern for each student contribute to various aspects of holistic growth, on average, there was no significant difference observed in their ratings. The only significant difference was observed in regard to

the acquisition of spiritual values such as compassion, $p = 0.001$. Since the p-value is less than .05 significance level, school A rated significantly higher than school B. Personal care and concern contribute to holistic growth in several ways. For example, when students' context is taken into consideration, it was reported that they feel valued and believe in their ability for higher achievement. The care and concern for students creates an environment of trust and confidence. This environment is necessary for an all-rounded growth of students and IPP seems to create such an environment.

5.2.2 Influence of teaching and learning experiences on holistic education.

The researcher examined how teaching and learning experiences influence holistic education. Respondents in both schools showed a high positive support (above 4 on a five point scale) that students have opportunities to deepen knowledge through class participation, visits, role playing and experiments. Based on students' ratings, the study found that students in School A have more opportunities to deepen knowledge through those teaching and learning experiences. This is because the p-value, $t(65.83) = 3.53$, $p = .001$ was found to be less than the significance level of .05. Asked whether those experiences contribute to various aspects of holistic education, although the average rating was higher in School A than in School B, there was no significant difference noted in students' ratings. The only significant difference was observed with regard to whether spiritual activities students engage in at school develop in them values such as compassion. On this item, students in School A showed significantly higher support than those in School B because the p-value found ($p < 0.001$) was less than the significance level of .05. Teachers must design teaching and learning experiences in a way that allows students to deepen what they learn and not merely a theoretical grasp.

Respondents generally agreed that teaching and learning experiences can be explored in a way that leads to holistic growth. Those experiences, as it was noted by some respondents, help in developing good values such as love, humility, and helpfulness. Teaching and learning experiences help develop teamwork, discipline, talents, creativity, innovation and entrepreneurial skills. Thus, teachers must engage students in their wholeness, mind, body and heart because this is what has the potential to initiate holistic growth. Events such as cultural day, clubs, sports, and group work activities, and the day-to-day interactions

with students, staff and school administrations were mentioned as avenues used to strengthen students' growth.

5.2.3 Role of students' reflection in stimulating holistic education.

The researcher examined the extent to which reflection stimulates holistic education. By reflecting on their experiences, students draw meaning and value from what they learn. Consequently, teachers have to facilitate reflection in teaching and learning. Teachers showed a high positive for the existence of opportunities in schools for students to reflect on what they learn with the ratings in both schools being above four on a five point scale. There was a moderate positive support among respondents that students have opportunities to engage in group discussions, debates, and personal reflection. There was no significant difference between the ratings of students respondents in both schools concerning the provision such opportunities, because the p-value, $t(84) = 0.19$, $p = .851$ was greater than the significance level of .05. No school could therefore be said to do better than the other in this regard.

Teachers and students respondents in the two schools also agreed that reflection on experiences stimulate various aspects of holistic education. However, there was no significant difference between their ratings. The only significant difference was observed regarding the likely contribution of personal reflection during spiritual activities in helping students develop values such as compassion with School A showing significantly higher rates than School B, $t(61.54) = 3.23$, $p = .002$ which is less than the significance level of .05. It was found that reflection stimulates holistic education by building in students a habit of discerning or looking back before taking any decision. It was also noted that reflection adds values to what students learn. It builds confidence, helps students speak out their needs, promotes independent thinking, sharpens students' minds and this ultimately leads to better understanding.

5.2.4 Extent to which students' actions motivate holistic education.

In this study, the researcher also wanted to establish the extent to which students actions motivate holistic education. It was found that in both schools majority of respondents admitted that students have opportunities to practice what they learn. For example, on the one hand, 91.67% and 77.78% of teachers in school A and B respectively admitted to offer opportunities for students to practice what they learn. On the other hand, 53.66% and 51.35%

of students in school A and B respectively admitted to have those opportunities. For both teachers and students, School A has a slightly higher percentage than School B. This implies that School A, which is run on IPP model, gives more opportunities to students to put into practice what they learn. As respondents noted, some of the opportunities offered to students to practice what they learn include laboratory experiments, sports activities, competitions of various sorts, clubs, school magazines, and school events such as cultural days.

However, since action is an expression of internal human growth which moves students to make choices and act upon them, students must not only practice what they learn but also the very practice must reflect the existence of an internal growth. Data from both students and teachers suggested that students in the school A admitted to work harder thereby improving their academic performance ($p < .001$) with p-value being less than significance level of .05. This was also confirmed by their high academic performance at national examinations in three consecutive years where candidates in school A performed better than their counterparts in school B. It was also found from the students' perspectives that students in the school that has adopted IPP model admitted to be more compassionate toward one another and support each other compared to their counterparts in the school B ($p < .001$) with p-value which is less than the significance level of .05. From the teachers perspective, the study results also suggested that students in school A were believed to be more honest and show more respect to each other compared to those in School B because the p-value ($p = .007$) was less than the significance level of .05 used for this study. Thus, students in School A manifested more positive change than their counterparts in School B.

As noted by respondents, actions such as charitable activities towards one another are signs of positive change. Students also admitted to love, respect, and visit one another, and actively participate in a wide range of clubs and groups that promote academic, physical, emotional and spiritual growth. It was noted that various activities they undertake in clubs, group work, and personal initiatives contribute to various aspects of holistic education such as cultivation of values, flexibility, innovation, and responsibility for their own growth.

5.2.5 Effect of students' evaluation on holistic education.

The researcher in this study sought to establish the effect of students' evaluation on holistic education. For holistic education, teachers are required to evaluate not only academic performance but also the overall growth of students. It was admitted by majority of students

(51% and 53%) and teachers (73% and 100%) in School A and B respectively that teachers evaluate the character of students. Teachers carried out that evaluation in different ways including constant observation, grading of individual and class conduct, evaluation meeting, and most importantly during consultation days where they exist. Students' ratings in the two studied schools showed a significant difference with regard to whether teachers evaluate everything they teach in and outside the class, $t(83) = 2.95$, $p = .004$ which is less than .05, the significance level for this study. Here students in School A gave significantly higher ratings than those in School B. Thus, teachers in School A carried out a more comprehensive evaluation of students' activities. An event such as consultation day was found to be a particularity of School A and a unique opportunity to evaluate the progress of each student academically, physically, emotionally and spiritually.

Results of the study have also shown that while respondents agree that evaluation contributes to various aspects of holistic growth, generally, there was no significant difference observed among their responses. The significant difference observed was in regard to whether evaluation of spiritual activities helps in stimulating values such as compassion where the p-value ($p < 0.001$) was less than significance value (.05). Here, school A gave significantly higher ratings than school B. It was found that a good evaluation can lead to holistic education because through it weaknesses in teaching and learning are identified and a course of action can be charted for improvement. An event such as consultation meetings with parents, teachers and students was believed to be an avenue to help students improve both their academic performance and their discipline.

It was found in the two schools that the level of holistic education is significantly different. Ratings of both students and teachers have shown that the level of holistic education is significantly higher in school A than in School B, with $P < .001$ for students and $P = .017$ for teachers. In both cases, the p-value was less than the significance level for the study which was .05. Although the difference may be caused by many factors, the role of IPP cannot be ignored. Its thrust is an all-rounded growth of students. A systematic cycle of context, experience, reflection, action, and evaluation is a fundamental quality enshrined in IPP which, if unpacked and well used, engages students in deep learning. As some respondents noted, IPP emphasises partnership with education stakeholders; insists on

personalized learning, practices *magis* towards excellence, inculcates values and strives to balance all aspects of students' growth, intellectual, physical, emotional, and spiritual.

5.2.6 Challenges in implementing IPP in schools.

Challenges met in implementing IPP for holistic education were identified in this study. The lack of familiarity with IPP was identified by the researcher as one of the challenges for implementing IPP. Other biggest challenges identified the impede holistic education include lack of enough sports facilities, lack of guidance and counselling services, competition for marks among students, and unqualified and incompetent teachers. Equally concerning was poor supervision of teaching and learning, lack of students' motivation, and lack of teaching and learning resources. Other important challenges identified are lack of collaboration among stakeholders, lack of knowledge of holistic education, heavy workload, and exam oriented curriculum.

5.2.7 Strategies to enhance the implementation of IPP in schools.

This study also identified strategies to enhance the implementation of IPP for holistic growth of students. That implementation can be enhanced by hiring more qualified teachers and involving students in planning school activities. There was an expressed need to organize training programs for staff members especially on the use of IPP in enhancing holistic education. Collaboration with other education stakeholders was also noted as an important strategy to consider. Other strategies identified include provision of adequate teaching and learning materials, provision of guidance and counselling services, increasing sports facilities, strengthening participation in sports activities, respecting religious freedom, and increasing spiritual activities in schools.

5.3 Conclusions

Based on the findings of the study the following conclusions were made. First, a school that has adopted IPP makes more efforts in taking personal care and showing concern for each student than a school which has not adopted IPP. A consideration of students' background or context contribute to holistic education because by knowing about students' health, feelings, family, and prerequisite knowledge in their teaching and learning, teachers create an environment of trust and confidence which allows students to feel valued and believe in their ability for higher holistic achievement. Second, a school run on IPP gives more opportunities for students to deepen knowledge through class participation, visits, role

playing and experiments, cultural day and the likes. Those teaching and learning experiences lead to holistic growth of students by creating in students good values, teamwork, discipline, creativity and entrepreneurial skills. They engage students in their wholeness, mind, body and heart.

Third, private secondary schools in Kigali are commended for providing opportunities for students to reflect on what they learn by engaging them in group discussion, debates, and personal reflection. Through reflection, students draw meaning and value from their experiences and this leads to holistic education because it provides better understanding, promotes independent thinking, sharpens students' minds, and creates the habit of discerning before taking any decision. Fourth, students in an IPP-run school show more signs of positive change than those in a different school by improving academic performance, and showing compassion, honesty, respect and support to each other. Increased performance, visits, charitable activities, and participation in various clubs and groups stimulate further holistic growth.

Fifth, a school run on IPP model carries out a more comprehensive evaluation. An evaluation that includes both academic progress and character formation in and outside the class has the potential to influence holistic education. The evaluation of students' progress is the basis for discovering strengths and weaknesses in teaching and learning so that improvement can be made where necessary. An event such as consultation day is an opportunity to evaluate and encourage students in all aspects of growth, be it intellectual, physical, emotional, and spiritual.

A school run on IPP model has also noticeable higher level of holistic education. The ratings of respondents in a school that adopted IPP were significantly more positive than those in a school which did not adopt IPP. In a special way, the ratings of students in IPP-run school were always significantly higher in terms of whether context, experience, reflection, action and evaluation lead to growth in spiritual values such as compassion. This signals the esteem that IPP has for spiritual needs of students and a religious dimension that permeates all Jesuit education. Teachers in IPP-run school make a noticeable better use of context, experience, action and evaluation to help students grow holistically. A cycle of context, experience, reflection, action, and evaluation plays an important role in holistic education. If well used, this cycle engages students in deep learning and leads to holistic growth. It does so

by emphasizing collaboration and partnership in education, personalized learning, *magis* or continual improvement for excellence in all activities, and striving for all-rounded growth of students.

Sixth, many challenges are met in implementing IPP in schools for holistic education. Most pronounced challenges are heavy workload, exam oriented curriculum, poor supervision of teaching and learning, students' lack of motivation, lack of enough facilities, lack of guidance and counselling, competition for marks, insufficient number of qualified teachers, and lack of professional development. Several strategies can be adopted to enhance the implementation of IPP for holistic development. Those include involving students in planning all school activities, provision of adequate teaching and learning materials, hiring of qualified personnel including counsellors, collaboration with other education stakeholders, provision of opportunities to apply acquired knowledge, and continual training for both teachers and parents on how to take care of students in a holistic manner.

Each of the five elements of IPP individually contributes to holistic education. Thus, a combination of context, experience, reflection, action, and evaluation has a lot to offer to any educational institution committed to holistic growth of students. Thus, a school run on IPP model gives students more opportunities for holistic growth. However, the success of IPP will always fall short of the ideal, as Dominuco (2000) noted, due to several challenges. But it is the striving for that ideal in a continual improvement that has always been the hallmark of the Jesuit education enterprise. Therefore, IPP is a commendable pedagogical tool. It can help to offer better education.

5.4 Recommendations

From the findings of the study, the following recommendations are made to the government, schools, teachers, and parents.

The government of Rwanda, through the ministry of education, should make educational policies that are informed by IPP given its potential contribution to holistic education. While the country has had many curriculum reforms in the recent past, it is imperative to incorporate holistic education approaches and strategies which will lead to holistic growth of students. A curriculum that is not holistic will hardly lead to holistic growth.

Secondary schools in general and private secondary schools in particular should adopt IPP as a rich pedagogical tool that offers opportunities for a holistic development of students. Schools that already use IPP should organize continuous training programs for staff members on how to better integrate the context, experience, reflection, action and evaluation in teaching and learning process. Even schools that may not adopt fully the model should make use of some of its principles such personalized learning, *magis*, excellence, and collaboration. Schools should also explore other learning opportunities apart from the conventional curriculum. Events such as cultural day and consultation day are avenues through which students acquire, apply, and improve what they learn.

Teachers should endeavour to design instruction based on the students' contexts or backgrounds so that they reach the interests and needs of the whole child (mind, body and heart). They should also teach students how to solve real-life problems and eventually transform the way they think, act, and behave. However, for this to happen, teachers should make effort to ensure their own wholeness before they can help students grow holistically because teachers will not take students where they have not been themselves.

Parents or guardians should harmonize with schools on desirable skills and values to give to students so that no contradictions transpire between values transmitted at home and at school. They should actively participate in the education of their children by closely collaborating with teachers and school administration, sharing necessary information about their kids, attending school meetings and events, and providing necessary learning materials.

5.5 Areas of Further Research

This study covered private secondary schools and examined how Ignatian Pedagogical Paradigm contributes to holistic education. The researcher suggests areas of further research.

- A similar study can expand the vantage point to public secondary schools to ascertain the level of holistic education and take necessary measures to ensure a sustainable future for all.
- Equally, there is need to carry out a similar study at primary school level to know whether holistic education is offered even at early stages of education.
- The current study used a collective case to examine the contribution of IPP on holistic education. There is need to carry out a longitudinal study in an IPP-run school in

order to evaluate and ascertain its contribution to holistic education especially in the area of how it transforms students' lives.

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Appendix 1: Research Schedule

Activities	Period				
	Sept 2016- June 2017	July 2017	August 2017	September 2017	October 2017
Formulation of Research Problem					
Review of Related Literature					
Preparation of Research Questions					
Preparation of Research Design					
Determining Sample Design					
Drafting of Research Proposal					
Data Collection					
Data Analysis					
Preparation of Research Report					
Final Corrections					

Appendix 2: Research Budget

Budget in Kenyan Shillings (Kshs)		
Items	Description	Cost
Stationary & equipment	Paper, notebooks, pens, software	5,000
Photocopy	Books, Articles, data collection instruments	2,000
Printing and Binding	Drafts, proposal, final report	10,000
Internet	Checking for online resources, mails, ...	3,000
Telephone	Important calls, messages	2,000
Travels	International travel	35,000
	Local travel	3,000
Total		60,000

Appendix 3: Research Permission 1



The Society of Jesus in Rwanda

Saint Ignatius High School /Kibagabaga

P. o. Box: 6717 Kigali/Rwanda Tel: +250 255119627 ; +250 787 493 499

E-mail: stignatiuschool@yahoo.fr

25 October 2017

To Mr Charles Niyigena, SJ
The Catholic University of Eastern African
Nairobi-Kenya
Cell: +250785077981
Email: niyigecharles@yahoo.fr

Re: Granting permission to collect research data in SIHS

Dear Charles,

On 23rd October 2017, you addressed me a letter requesting to collect data needed for the completion of your study entitled "a comparative study on the contribution of Ignatian pedagogical paradigm on holistic education in private secondary schools in Kigali City, Rwanda."

I grant you permission to carry out your research in our school. I hope your findings will help us to form our students more holistically as a Jesuit school.

I wish you all the best in your research.

Blessings.

Rev. Fr. KAYITARE OLIVIER SJ

Rector of Saint Ignatius High School, Kibagabaga



Appendix 4: Research Permission 2

Charles Niyigena, SJ
The Catholic University of Eastern African
Nairobi-Kenya
cell: +250785077981/ Email: niyigecharles@yahoo.fr

The Principal
St Paul International School
Kigali, Rwanda
23rd October 2017

Dear Principal,

Re: Request for permission to collect research data at SPIS

PERMISSION GRANTED

26/10/2017



cc
- DOS
- Conseil
- Pedagogique

principal ai

My name is Charles Niyigena, a student of the catholic University of Eastern Africa in Nairobi/Kenya, pursuing a MA in Education. In partial fulfillment of the requirements of the degree, I am carrying out a study titled "a comparative study on the contribution of Ignatian pedagogical paradigm on holistic education in private secondary schools in Kigali City, Rwanda." The study seeks to identify ways in which holistic education can be improved so as to better prepare our students for brighter future.

I believe the findings of this study will be a useful addition to existing literature on how to educate students holistically and can help our schools renew their commitments in efforts to build a society guided by human and Christian values. I am hereby requesting you to facilitate this exercise by granting collection of data needed for the completion of this research. Data collected will be kept confidential and will serve research purpose alone. Participants in the study will include the headteacher, some teachers and some students.

Thanking you in advance as I look forward to receiving your approval for this study.

Sincerely,

Charles Niyigena, SJ

Appendix 5: Document Analysis Guide

Name of the School:

Date:

1. O' Level National Examination Performance Records for the Last 3 Years

Year/Division	Div. I	Div. II	Div. III	Div. IV	Div. V
2014					
2015					
2016					
Total					

2. List of Students Extracurricular Activities (Academic, Physical, Spiritual)

-
-
-

3. List of Clubs Operating in the School

-
-
-

4. Class Register (The average of class attendance)

- 32.4/33 32.7/33 32.1/33

-

5. Discipline Book (Cases of indiscipline and how they have been handled).

Major Cases of Indiscipline	When it occurred	Disciplinary measures taken
a.		
b.		
c.		

Appendix 6: Questionnaire for Students

Dear participant, my name is Charles Niyigena, a student of the Catholic University of Eastern Africa (Kenya) Pursuing a Master’s Degree in Education. I am carrying out a research on the Contribution of Jesuit Pedagogy to holistic education. **Holistic education is an education that considers all intellectual, physical, emotional and spiritual needs of students.** This questionnaire is designed to help identify how holistic education is provided to students in your school. You are kindly requested to complete this questionnaire indicating your honest response. Please tick (√) the most appropriate answer or explain where required. **The information you give will be kept confidential. Don’t write your name!**

Section A: Demographic Information

1. Gender: Male () Female ()
2. Age: 10-15 () 16-20 () 21-25 () above 25 ()
3. Religious affiliation: Catholic () Adventist () Protestant () Muslim () Other ()
4. Year of study: Combination:

Section B: Influence of Student’s Context on Holistic Education

5. a. Do teachers consider students’ backgrounds in their teaching? Yes ()No ()
 b. if yes how:
6. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Teachers take personal care and concern for each student					
The care and concern for each student by teachers help students improve in academic performance					
The care and concern for students’ physical health helps them to remain physically fit					
The care and concern for students’ feelings and difficulties creates values such as honesty and respect among students					
The care and concern for students’ spiritual needs helps them develop values such as compassion					

How else do you think personal care and concern for each student by teachers contribute to holistic education?

Section C: Effect of Teaching and Learning Experiences on Holistic Education

7. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Students have opportunities to deepen knowledge through class participation, class visits, role playing and experiments					
Class participation, class visits, and experiments help students improve in academic performance					
The physical activities such as sports and manual work at school help students to remain physical fit					
The activities students engage in at school help them to acquire values such as honesty and respect					
The spiritual activities we engage in at school develop in us values such as compassion					

Suggest other ways in which various experiences that you have at school contribute to holistic education:

.....

Section D: The Role of Students' Reflection in Stimulating Holistic Education

8. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Students have chance to engage in group discussions, debates and personal reflections concerning what they learn					
Discussions, debates, and personal reflection help students to improve their academic performance					
Reflection in physical activities such as sports and manual work help students to perform them better and keep fit					
Reflecting on activities at school help students to internalize values such as honesty and respect					
Personal reflection during spiritual activities help students to develop values such as compassion					

How else does students' reflection on experiences contribute to holistic education?

.....

Section E: The role of Actions in Motivating holistic education

9. a. Do students have opportunities in school to put into practice what they learn? Yes () No ()

b. If yes how:

10. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Students in the school manifest some positive change as a result of what they learn					
Students in the school study harder and this improves their academic performance					
Students in this school have high level of participation in physical activities and sports					
Students in this school are honest and respect each other as a result of what they learn					
Students in this school are compassionate towards one another and they support each other					

Suggest other ways in which various activities that students undertake can contribute to holistic education?

.....

Section F: Effect of Students' Evaluation on Holistic Education

11. Do teachers evaluate the character of students? Yes () No ()

b. if Yes how:

12. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Teachers always evaluate what they teach in and outside class					
The evaluation feedback helps students improve academic performance					
The evaluation of physical activities and sports helps in enhancing physical fitness					
The evaluation of students' behaviours helps them to develop values such as honesty and respect					

Evaluation of students' spiritual activities helps in improving values such as compassion					
---	--	--	--	--	--

Suggest other ways in which evaluation can be better used to influence to holistic education in your school?

13. On the scale of 1 to 10, rate the level of holistic education in your school (mark out of 10)/10

14. What else can the school do to improve holistic education to students?

Section G: Challenges in Implementing IPP in Schools

15. Have you noticed the following difficulties in your school? Tick (✓) where appropriate.

Challenges	Yes	No
Lack of enough sports facilities		
Lack of good library		
Lack of well-equipped laboratories		
The school has some unqualified and incompetent teachers		
Competition for marks among students		
Limited time for consultation between teachers and students		
Lack of guidance and counselling services in school		

In your opinion, what other difficulties hinder holistic education? :

Section H: Strategies to Enhance the Implementation of IPP

16. Rate your level of agreement with the following as strategies to enhance holistic education?

Solutions	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Finding more and qualified teachers					
Provision of adequate learning materials					
Collaboration between teachers and parents					
Involving students in planning school activities					

17. What suggestions can you give to help the school improve academic excellence of students?

18. What suggestions can you give to help the school respond to emotional needs of students?

19. What suggestions can you give to help the school improve physical needs of students?

.....

20. What suggestions can you give to help the school improve spiritual needs of students?

.....

Thank you for taking your time to fill this questionnaire!

Appendix 7: Questionnaire for Teachers

Dear participant, my name is Charles Niyigena, a student of the Catholic University of Eastern Africa (Kenya) pursuing a Master’s Degree in Education. I am carrying out a research on the Contribution of Jesuit Pedagogy to holistic education. **Holistic education is an education that considers all intellectual, physical, emotional and spiritual needs of students.** This questionnaire is designed to help identify how holistic education is provided to students in your school. You are kindly requested to complete this questionnaire indicating your honest response. Please tick (√) the most appropriate answer or explain where required. **The information you give will be kept confidential. Don’t write your name!**

Section A: Demographic Information

1. Gender: Male () Female ()
2. Age: 25 and below (); 26-30 (); 31-35 (); 36-40 () 41-45 (); 46 and above ()
3. Religious affiliation: Catholic () Adventist () Protestant () Muslim () Other ()
4. What is your highest academic qualification?
 - a. diploma in education (), b. B.Ed. (), c. M.Ed. () e. Other (specify).....
5. Years of teaching experience: 0-5 (); 6-10 (); 11-15 (); 16-20 (); More than 20 ()
6. For how long have you been teaching in this school? less than 1 year (); 1-3 years (); 4-6 years ()
7. Apart from teaching, what other responsibilities do you exercise in the school? :

Section B: Influence of Student’s Context on Holistic Education

8. Teachers consider students’ backgrounds in their teaching? Yes ()No ()
 - b. if yes how:
9. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Teachers take personal care and concern for each student					
The care and concern for each student by teachers help students improve in academic performance					
The care and concern for students’ physical health helps them to remain physically fit					
The care and concern for students’ feelings and difficulties creates a sense of honesty and respect among students					

The care and concern for students spiritual needs helps them to develop values such as compassion					
---	--	--	--	--	--

How else can personal care and concern for each student by teachers influence holistic education?

.....

Section C: Effect of Learning Experiences on Holistic Education

10. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Students have opportunities to deepen knowledge through class participation, class visits, role playing and experiments					
Class participation, class visits, and experiments helps students to improve their academic performance					
The physical activities students do such as sports and manual work help them to remain physical fit					
The activities students engage in at school help them to be honest and respectful in their relationship with others					
The spiritual activities prepared for students helps them develop values such as compassion					

How else do various learning experiences that students have at school contribute to holistic education?

Section D: The Role of Students' Reflection in Stimulating Holistic Education

11. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Students have chance to engage in group discussions, debates, personal reflections concerning what they learn					
Discussions, debates, and personal reflection help students to improve their academic performance					
By reflecting on their physical activities such as sports and					

manual work students perform them better and keep fit					
By reflecting on their experiences, students internalize values such as honesty and respect					
Students personal reflection during spiritual activities helps then cultivate values such as compassion					

How does students' reflection on experiences at school stimulate holistic education?

Section E: The role of Students' Actions in Motivating holistic education

12. a. Do students have opportunities in school to put into practice what they learn? Yes () No ()

b. If yes how:

13. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Students in the school manifest some positive change as a result of what they learn					
Students in the school study harder and this improves their academic performance					
Students in this school have high level of participation in physical activities and sports					
Students in this school are honest and respect each other as a result of what they learn					
Students in this school are compassionate towards one another and support each other					

Suggest other ways in which various activities that students undertake motivate holistic education?

Section F: Effect of Evaluation on Holistic Education

14. Do teachers evaluate the character of students? Yes () No ()

b. if Yes how:

15. Indicate your level of agreement with the following statements by ticking (√) on each statement

Statements	Strongly disagree	disagree	Not sure	agree	Strongly agree
Teachers always evaluate what they teach in and outside class					
The evaluation feedback helps students improve on academic performance					
The evaluation of physical activities and sports help in enhancing students' physical fitness					
The evaluation of students' behaviours helps them to develop values such as honesty and respect					
The evaluation of students' spiritual activities helps in stimulating values such as compassion					

Suggest other ways in which evaluation can contribute to holistic education your schools?

.....

16. On a scale of 1 to 10, rate the level of holistic education in your school (mark/10)/10

17. In your opinion, how can holistic education be more enhanced in schools?

.....

Section G: Challenges in Implementing IPP in Schools

18. Do you think it is the responsibility of **every** teacher to care for all aspects of students' growth (intellectual, physical, emotional and spiritual)? Yes () No ()

19. There are many difficulties that impede holistic education. Show what you have observed by ticking (√) on each of the following:

Challenges	Not at all	Little	A lot
Lack of enough teaching and learning resources			
Insufficient remuneration/salaries			
Poor supervision of teaching-learning			
Lack professional development and training for teachers			
Poor school management			
Heavy workload			
Lack of collaboration with some parents			

Students' lack of motivation to learn			
Exam-oriented curriculum			

In your opinion, what other challenges impede holistic education in schools?

Section H: Strategies to enhance the implementation of IPP

20. Rate your level of agreement with the following as strategies to enhance holistic education?

Solutions	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Augmenting of staff members					
Organizing training programs for staff members					
Provision of adequate learning materials					
Collaboration with other schools, teachers, parents					
Involving students in planning school activities					

21. What do you suggest should be done to enhance holistic education in schools?

a. by the government:

.....

b. by the school:.....

.....

c. by teachers:

.....

d. by parents:

.....

22. Are you familiar with Jesuit pedagogy? Yes () No ()

If yes, how can it contribute to holistic education?

.....

Thank for taking your time to fill this questionnaire!

Appendix 8: Interview Guide for Students

Holistic education is an education that considers all intellectual, physical, emotional and spiritual needs of students.

1. Why do you think it is important for students to be educated holistically?

2. How does the school provide for the following needs of students?
 - (a) Academic needs?

 - (b) Physical needs?

 - (c) Emotional needs?

 - (d) Spiritual needs?

3. Are there some needs of the students that the school does not respond to?

4. What challenges does the school face in providing for holistic education of students?

5. What can the school do to solve those challenges?

6. Give other suggestions on how holistic education can be enhanced in secondary schools

Appendix 9: Interview Guide for Head teachers

1. In which ways does your school educate students holistically?
2. How does the school provide for all the needs of students?
 - a) Academic needs?
 - b) Physical needs?
 - c) Emotional needs?
 - d) Spiritual needs?
3. What challenges does the school face in providing for holistic education of students?
4. What does the school do to solve those challenges?
5. Give other suggestions on how holistic education can be enhanced in secondary schools?
6. Are you familiar with Jesuit Pedagogy? Yes () No ()

If yes, how can it help to enhance holistic education?

Appendix 10: Observation Checklist

Name of the School: Date:

Items	Adequate	Inadequate	Not available
1. Facilities and Equipment			
Quality of Classrooms			
Laboratories and Library			
Class size			
Fire-fighting equipment			
Playgrounds and sports equipment			
Chapel			
School fence			

Comments

2. Resources

Qualified teachers			
Text books and reference books			
Laboratory apparatus and chemicals			
Computer lab			
Projectors			

Comments

3. Other activities and Services in the School

Medical first aid			
Food and drinking water			
Spiritual talks			
School magazine			
Guidance and counselling			
Mentoring program			

Comments

4. Teaching and Learning Process

Subject:

Date:..... Time:.....

a. Context

Teacher considers students' background

Students receive individualized attention

Teacher knows students by their names

Comments

b. Experience

Students participate actively in class

Teacher solicits students' reactions to what he teaches

Teacher uses simulations, audio-visual material and role playing

Comments

c. Reflection

Students are encouraged to ask questions

Students are challenged through thought provoking questions

Teacher uses small group discussion, group work and debates

Comments

d. Evaluation

The teachers check the mastery of knowledge through quizzes and tests

The teacher corrects the behaviours of students when they misbehave

Comments

General comments:

Appendix 11: Test of Reliability of Instruments

1. Students' Questionnaire

Reliability Statistics

Cronbach's Alpha	N of Items
.781	45

2. Teachers' Questionnaire

Reliability Statistics

Cronbach's Alpha	N of Items
.756	51

Appendix 12: Independent T-Test Tables

Q1) How Personal care and Concern for Students Contribute to Holistic Education

Group Statistics

	School	N	Mean	Std. Dev	S.E. Mean
Teachers take personal care and concern for each student	A	42	3.62	0.88	0.14
	B	44	3.14	1.25	0.19
Care and concern improve academic performance	A	42	3.98	0.78	0.12
	B	45	3.58	1.29	0.19
Care and concern for physical health leads to fitness	A	42	3.76	0.82	0.13
	B	44	3.82	1.15	0.17
Care and concern for feelings leads to honesty & respect	A	41	3.73	1.12	0.17
	B	44	3.64	1.1	0.17
Care and concern for spiritual needs leads to compassion	A	42	4.12	0.86	0.13
	B	44	3.02	1.44	0.22

Independent Samples Test

		Levene's Test for Equality of Variances		t- Test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff	Std. E. Diff	95% Confidence Interval of the Diff	
									Lower	Upper
Teachers take personal care and concern for each student	Equal variances assumed	5.62	0.020	2.06	84	0.042	0.48	0.23	0.02	0.95
	Equal variances not assumed			2.08	77.46	0.041	0.48	0.23	0.02	0.95
Care and concern improve academic performance	Equal variances assumed	16.76	0.001	1.73	85	0.087	0.40	0.23	-0.06	0.86
	Equal variances not assumed			1.76	73.27	0.083	0.40	0.23	-0.05	0.85
Care and concern for physical health leads to fitness	Equal variances assumed	6.80	0.011	-0.26	84	0.795	-0.06	0.22	-0.49	0.37
	Equal variances not assumed			-0.26	77.98	0.794	-0.06	0.21	-0.48	0.37
Care and concern for feelings leads to honesty & respect	Equal variances assumed	0.15	0.698	0.40	83	0.693	0.10	0.24	-0.38	0.57
	Equal variances not assumed			0.4	82.38	0.693	0.10	0.24	-0.38	0.57
Care and concern for spiritual needs leads to compassion	Equal variances assumed	10.75	0.002	4.26	84	0.001	1.10	0.26	0.58	1.61
	Equal variances not assumed			4.31	70.87	0.001	1.10	0.25	0.59	1.6

Q2) How Teaching and Learning Experiences Contribute to Holistic Education

Group Statistics

	School	N	Mean	Std. Deviation	S.E. Mean
Students have opportunities to deepen knowledge through class participation, visits, role playing and experiments	A	42	4.55	0.67	0.1
	B	45	3.76	1.33	0.2
Class participation, visits and experiments helps students academic performance	A	42	4.45	0.63	0.1
	B	45	4.13	1.2	0.18
Physical activities such as sports and manual work help students to remain physically fit	A	42	3.95	0.82	0.13
	B	45	4.18	1.01	0.15
Activities students engage in at school help them to acquire values such as honesty and respect	A	42	3.76	0.82	0.13
	B	44	3.39	1.22	0.18
Spiritual activities students engage in at school develop in them values such as compassion	A	42	4.48	0.63	0.1
	B	43	3.42	1.3	0.2

Independent Samples Test

		Levene's Test for Equal. Var.		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. E. Diff.	95% Conf. Inter. Diff.	
									Lower	Upper
Students have opportunities to deepen knowledge through class participation, visits, role playing and experiments	Equal variances assumed	17.53	0.000	3.46	85	0.001	0.79	0.23	0.34	1.25
	Equal variances not assumed			3.53	65.83	0.001	0.79	0.22	0.34	1.24
Class participation, visits and experiments helps students academic performance	Equal variances assumed	8.31	0.005	1.54	85	0.128	0.32	0.21	-0.09	0.73
	Equal variances not assumed			1.57	67.71	0.122	0.32	0.2	-0.09	0.73
Physical activities such as sports and manual work help students to remain physically fit	Equal variances assumed	1.67	0.199	-1.14	85	0.258	-0.23	0.2	-0.62	0.17
	Equal variances not assumed			-1.15	83.64	0.255	-0.23	0.2	-0.62	0.17
Activities students engage in at school help them to acquire values such as honesty and respect	Equal variances assumed	7.37	0.008	1.66	84	0.100	0.38	0.23	-0.07	0.82
	Equal variances not assumed			1.68	75.48	0.098	0.38	0.22	-0.07	0.82
Spiritual activities students engage in at school develop in them values such as compassion	Equal variances assumed	20.84	0.000	4.76	83	0.000	1.06	0.22	0.62	1.5
	Equal variances not assumed			4.8	61.35	0.000	1.06	0.22	0.62	1.5

Q3. Role of Reflection in Stimulating Holistic Education

Group Statistics

	School	N	Mean	Std. Dev.	S.E. Mean
Discussions, debates, personal reflection helps improve academic performance	A	42	4.26	0.59	0.09
	B	44	3.86	1.23	0.19
Reflection in physical activities such as sports and manual work help students to perform them better and keep fit	A	42	3.79	0.84	0.13
	B	43	3.84	1.19	0.18
Reflecting on experiences at school help students internalize values such as honesty and respect	A	42	3.71	0.71	0.11
	B	42	3.43	1.29	0.20
Personal reflection during spiritual activities help students to develop values such as compassion	A	42	4.17	0.66	0.10
	B	42	3.45	1.27	0.20

Independent Samples Test

		Levene's Test for Equal. of Var.		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. E. Diff.	95% Confid. Inter. of the Diff.	
									Lower	Upper
Students have chance to engage in group discussions, debates and personal reflection	Equal variances assumed	.00	.982	.19	84.00	0.851	.04	.23	-.41	.50
	Equal variances not assumed			.19	83.99	0.851	.04	.23	-.41	.50
Discussions, debates, personal reflection helps improve academic performance	Equal variances assumed	14.98	0.000	1.9	84	0.061	0.4	0.21	-0.02	0.82
	Equal variances not assumed			1.93	62.21	0.058	0.4	0.21	-0.01	0.81
Reflection in physical activities such as sports and manual work help students to perform them better and keep fit	Equal variances assumed	5.64	0.020	-0.23	83	0.819	-0.05	0.22	-0.50	0.4
	Equal variances not assumed			-0.23	75.59	0.819	-0.05	0.22	-0.50	0.39
Reflecting on experiences at school help students internalize values such as honesty and respect	Equal variances assumed	15.68	0.000	1.26	82	0.212	0.29	0.23	-0.17	0.74
	Equal variances not assumed			1.26	63.65	0.213	0.29	0.23	-0.17	0.74
Personal reflection during spiritual activities help students to develop values such as compassion	Equal variances assumed	21.39	0.000	3.23	82	0.002	0.71	0.22	0.27	1.15
	Equal variances not assumed			3.23	61.54	0.002	0.71	0.22	0.27	1.16

Q4) Role of actions in motivating Holistic Education

Group Statistics

	School	N	Mean	Std. Dev.	S.E. Mean
Students in the school manifest some positive change as a result of what they learn	A	41	3.46	0.9	0.14
	B	42	3.17	1.41	0.22
Students in this school study harder and this improves their academic performance	A	41	4.41	0.59	0.09
	B	43	3.53	1.37	0.21
Students in this school have high level of participation in physical activities and sports	A	41	3.32	1.11	0.17
	B	44	3.41	1.42	0.21
Students in this school are honest and respect each other as a result of what they learn	A	41	3.39	0.74	0.12
	B	44	3.05	1.26	0.19
Students in this school are compassionate toward one another and support each other	A	41	4.05	0.77	0.12
	B	44	3.16	1.24	0.19

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. E. Diff.	95% Confid. Inter. Diff.	
									Lower	Upper
Students in the school manifest some positive change as a result of what they learn	Equal variances assumed	8.19	0.005	1.14	81	0.26	0.3	0.26	-0.22	0.82
	Equal variances not assumed			1.15	69.68	0.256	0.3	0.26	-0.22	0.81
Students in this school study harder and this improves their academic performance	Equal variances assumed	37.26	0.000	3.79	82	0.000	0.88	0.23	0.42	1.34
	Equal variances not assumed			3.85	57.69	0.000	0.88	0.23	0.42	1.34
Students in this school have high level of participation in physical activities and sports	Equal variances assumed	3.97	0.049	-0.33	83	0.741	-0.09	0.28	-0.64	0.46
	Equal variances not assumed			-0.33	80.52	0.739	-0.09	0.27	-0.64	0.46
Students in this school are honest and respect each other as a result of what they learn	Equal variances assumed	6.64	0.012	1.53	83	0.130	0.34	0.23	-0.1	0.79
	Equal variances not assumed			1.56	70.33	0.124	0.34	0.22	-0.1	0.79
Students in this school are compassionate toward one another and support each other	Equal variances assumed	9.22	0.003	3.94	83	0.000	0.89	0.23	0.44	1.34
	Equal variances not assumed			4	72.81	0.000	0.89	0.22	0.45	1.33

Q 5 Effect of Evaluation on holistic education

Group Statistics

	School	N	Mean	Std. Dev	S.E. Mean
Teachers evaluate what they teach in and outside class	A	41	3.59	0.81	0.13
	B	44	2.93	1.19	0.18
Evaluation feedback helps students improve academic performance	A	41	4.12	0.68	0.11
	B	44	3.95	0.96	0.15
Evaluation of physical activities and sports helps enhancing students' fitness	A	41	3.63	1.07	0.17
	B	44	4.05	1.16	0.17
Evaluation of students' behaviours helps them develop values such as honesty and respect	A	41	3.71	0.84	0.13
	B	44	3.55	1.19	0.18
evaluation of spiritual activities helps in stimulating values such as compassion values of compassion	A	39	4.23	0.67	0.11
	B	44	3.23	1.26	0.19

Independent T-Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. E. Diff.	95% Confidence Interv. Diff.	
									Lower	Upper
Teachers evaluate what they teach in and outside class	Equal variances assumed	2.02	0.159	2.95	83	0.004	0.65	0.22	0.21	1.09
	Equal variances not assumed			2.98	75.97	0.004	0.65	0.22	0.22	1.09
Evaluation feedback helps students improve academic performance	Equal variances assumed	0.62	0.434	0.92	83	0.36	0.17	0.18	-0.19	0.53
	Equal variances not assumed			0.93	77.37	0.36	0.17	0.18	-0.19	0.53
Evaluation of physical activities and sports helps enhancing students' fitness	Equal variances assumed	0.000	0.977	-1.7	83	0.09	-0.41	0.24	-0.89	0.07
	Equal variances not assumed			-1.7	82.99	0.09	-0.41	0.24	-0.89	0.07
Evaluation of students' behaviours helps them develop values such as honesty and respect	Equal variances assumed	5.79	0.018	0.72	83	0.47	0.16	0.23	-0.29	0.61
	Equal variances not assumed			0.73	77.63	0.47	0.16	0.22	-0.28	0.61
evaluation of spiritual activities helps in stimulating values such as compassion values of compassion	Equal variances assumed	12.7	0.001	4.46	81	0.000	1.00	0.22	0.56	1.45
	Equal variances not assumed			4.62	67.08	0.000	1.00	0.22	0.57	1.44

