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Abstract

This action research study investigated teacher and student perceptions regarding the impact of worldviews on educational outcomes in an urban, lower income setting in Nicaragua. Two Christian schools, one representing a holistic biblical approach and the other a dualistic approach in similar socio-economic settings were selected for a primarily non-experimental quantitative study to find out whether a holistic biblical worldview orientation in teachers was perceived as more effective in producing student transformation that connected with service to the community. A third school representing a secular approach was included as additional point of comparison. Participants included seven teachers and twelve fourth-grade students from each school. Teachers were surveyed to broadly identify each participant's perceptions of their own professed worldview orientation and what they presented in the classrooms. Students were also broadly surveyed to evaluate if a worldview orientation made a difference in producing transformative elements. A connection between worldview orientation and perceived positive student impact for transformation was quantified. The results of the study suggested that the school with the holistic biblical worldview had a greater positive student impact for social transformation than the dualistic worldview school.

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Action Research Report Submitted in Partial Fulfillment Of the Requirements for the Degree of Master of Education

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in a Latin American Community

by

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Action Research Report
Submitted in Partial Fulfillment
Of the Requirements for the
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Department of Education
Dordt College
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May, 2015

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Abstract

This action research study investigated teacher and student perceptions regarding the impact of worldviews on educational outcomes in an urban, lower income setting in Nicaragua. Two Christian schools, one representing a holistic biblical approach and the other a dualistic approach in similar socio-economic settings were selected for a primarily non-experimental quantitative study to find out whether a holistic biblical worldview orientation in teachers was perceived as more effective in producing student transformation that connected with service to the community. A third school representing a secular approach was included as additional point of comparison. Participants included seven teachers and twelve fourth-grade students from each school. Teachers were surveyed to broadly identify each participant's perceptions of their own professed worldview orientation and what they presented in the classrooms. Students were also broadly surveyed to evaluate if a worldview orientation made a difference in producing transformative elements. A connection between worldview orientation and perceived positive student impact for transformation was quantified. The results of the study suggested that the school with the holistic biblical worldview had a greater positive student impact for social transformation than the dualistic worldview school.

In recent years, there has been a growing interest in Latin America in education with a biblical worldview. Much of the interest is due to the great social and economic problems and political unrest that have plagued the region for decades, and which have predisposed attitudes toward new alternatives for change (“Latin America’s Left,” 2013). Christians, both Protestants and Catholics alike, have been challenged to ask questions regarding the relevance of their faith in addressing these issues (Boff & Boff, 1987; World Council of Churches, n.d.). The period of turbulence has turned into an opportunity for the gospel and the region has exploded with new Christian churches everywhere.

Following the growth of Protestant churches, many Christian schools were opened. The schools often filled an urgent need in areas where governments were unable to provide schools of their own. However, after nearly two decades of Christian educational experience in Latin America, the impact for social transformation has been only minimally visible.

The increased concern for greater effectiveness in social transformation through Christian education motivated a small, but growing number of Latin American educators to start establishing schools with a holistic biblical worldview approach to education. Several such schools were opened in Nicaragua as a result of fruitful, collective reflections on the need for greater impact through Christian education (Klompenburg & Biddle, 2011).

Problem

Significant research has already been done related to the need for a holistic biblical worldview to correct the current deficit of impact of dualistic Christian education (Brickhill, 2010; Wood, 2008). Nevertheless, there is a gap that needs to be filled to determine whether in

practice the different approaches actually achieve different results. The need for this research is even greater in communities that are looking for solutions to poverty and to violence, and in communities who have failed to find political answers or other solutions.

Research Questions

This research study sought to answer this question:

Is teaching with a holistic biblical worldview more effective in producing transformative elements in its participants and community as compared to teaching with a dualistic approach or with a secular approach?

To answer this overarching question, the following sub-questions must be addressed:

1. How do teachers understand their own worldview orientation?
2. How do teachers perceive the worldviews and values of the community where the schools function and how are they seen as contributing or interfering with the education process?
3. Is it possible to present an education with a neutral perspective without entering into conflict with the community's worldviews?
4. How does the worldview guide the purpose, curriculum, pedagogy and methodology?
5. What is the purpose of Christian education and how is a holistic biblical transformation defined?
6. What does a holistic biblical transformation through education look like in a real setting and what are the keys that contribute towards its success?

Definition of Terms

For the purpose of this paper, the following definitions will be used. The definitions provided are the author's own unless otherwise indicated.

Worldview: a particular philosophy of life or conception of the world, “ways of seeing” the world (Walsh & Middleton, 1984).

Christian Worldview: is a set of presuppositions and beliefs that uses the Bible as the lens to interpret and form opinions about humanity, purpose in life, duties in the world, responsibilities to family, interpretation of truth, social issues, etc. (Slick, n.d.)

Holistic Christian worldview or biblical worldview: holds the same as above but takes a larger view of the kingdom, in that “every square inch of creation belongs to God” (Kuyper, 1880). In this paper the two terms will be used interchangeably.

Dualism: a theory that considers reality to consist of two irreducible elements or modes; the quality or state of being dual or of having a dual nature. In this study, it refers to the separation of realities into spiritual and secular, eternal and temporal (Walsh & Middleton, 1984, p. 95).

Transformation: In the Bible, transformation means “change or renewal from a life that no longer conforms to the ways of the world to one that pleases God” (Romans 12:2). This is accomplished by the renewing of our minds, an inward spiritual transformation that will manifest itself in outward actions. In this study, the term means a transformation that goes beyond the individual to the greater, social level (Bridges, 2012).

Social Transformation: Large scale social changes as in cultural reform or transformations. In this study, social transformation has *shalom* as its goal. (Wolterstorff, 2004)

Shalom: In the words of Wolterstorff (2004), shalom is “a vision in the Bible for what God wants for God’s human creatures – a vision of what constitutes human flourishing and of our appointed destiny” (p. 23).

Literature Review

Background

The failure of Christian education to promote greater social transformation has been an important topic of debate among Christian leaders and educators in recent years (Wolterstorff, 2004). Christian education has not been successful in producing individuals who are fully able to engage with the world and make a difference beyond the individual testimony level (Barna Group, 2004; Brickhill, 2010; Cardus, 2011; Crenshaw, 2013; Wood, 2008). Research attributes this deficiency to a weak biblical foundation at the base of Christian education (Barna Group, 2004; Glanzer & Talbert, 2005) and to the interference that comes from other preexisting worldviews that may have been part of the teachers’ formation. Teachers are unable to integrate faith with learning and life because they also failed to receive adequate teacher training at the university level (Crenshaw, 2013). Christian universities, in turn, failed to prepare the students for social engagement and action because the purpose of education did not envision a sphere of influence that included social transformation (Cardus, 2011). All of these issues were the effects of a syncretism between the Christian faith and dualism that has infiltrated Christian churches since its early history (Miller & Guthrie, 2001; Sire, 1997; Walsh & Middleton, 1984).

The implications of a dualistic influence on Christian education are profound because such an influence directly compromises the potential to impact the world, which has often been a stated purpose of education. Many in Latin America are looking for answers to social issues, and Christian education may provide an avenue toward change.

Transformation, a Christian Issue

According to Hunter (2010), changing the world for the better is inherent in Christian belief and practice. It should be a natural by-product of the reign of Christ by nature (2 Corinthians 5:17) and by calling (Matthew 28: 16-20). To be transformed individuals by the message of the gospel who were called to be salt and light is to understand that the Christian identity is in essence that of an agent of transformation (Bridges, 2012). The theme of transformation is threaded throughout the biblical narrative and it is an ever present topic from Genesis to Revelation. God's creative power touches all areas of life transforming what was to something better. Bringing transformation, change, and renewal is the business of God, and it is also the business of the church; therefore, it is the central business of Christian education. Wolterstorff (2004) stated that the chief purpose of education is to bring shalom transformation for the greater benefit of mankind, here and now. This translates into concrete contributions made for social change.

In the Latin American context, especially in the last two decades, Christian education has made invaluable social contributions by meeting the most immediate needs for schools, in offering perhaps the only available formal education to underprivileged children who otherwise might have had to walk several miles on foot to the nearest school. In addition, the schools have served as places of refuge and shelter and have opened an important economic gateway for family sustenance (Salazar, as cited in Jeynes, 2012). However, in terms of enabling greater social transformation, Christian education has been less than far reaching because for most Latin American educators, the only approach to education they know is a dualistic view inherited from those who brought the gospel to these lands.

Worldviews: What They Are

Walsh and Middleton (1984) defined a worldview as perceptual frameworks, a way of seeing the world around. Sire (1997) took a step further and said that “a worldview is a commitment, a fundamental orientation of the heart expressed in a story or a set of presuppositions that we hold about the basic constitution of reality, and that provides the foundation on which we live, move and have our being” (p. 20). Miller and Guthrie (2001) said that, “every culture holds many beliefs. Some beliefs might be stronger than others in creating a preponderance of belief towards certain positions. Ideas produce behaviors and lifestyles that affect people, cultures, nations and history” (p. 34). Therefore, ideas are not neutral. Behind ideas are ways of seeing that shapes action (Miller & Guthrie, 2001). Because ideas are not neutral, the worldview underlying any education is not neutral.

Worldviews answer some of the most fundamental questions about our existence. McCallum (1997), classified worldviews into five major categories: naturalistic, pantheistic, theistic, polytheistic and postmodern. These worldviews shape the way we see reality, man, truth and values (see Appendix A for more detailed explanation of the five worldview categories). The Christian theistic worldview has the following distinct views about God, man, truth and moral values that differ from all the other views:

- *View of God:* An infinite, personal God exists. He created a finite, material world. Reality is both material and spiritual. The universe as we know it had a beginning and will have an end.

- *View of man:* Humankind is the unique creation of God. People were created "in the image of God," which means that we are personal, eternal, spiritual, and biological.
- *View of truth:* Truth about God is known through revelation. Truth about the material world is gained via revelation and the five senses in conjunction with rational thought.
- *View of moral values:* Moral values are the objective expression of an absolute moral being. (McCallum, 1997)

Holistic Versus Dualistic Approach

Dualism: the problem.

Dualism is an idea that originated with the Greeks and Romans and infiltrated the church in its early days. Essentially it was a split vision whereby the world was divided into the sacred and the secular, the spiritual and the material, the eternal and temporal (Walsh & Middleton, 1984, p. 96). In Christian dualism, the reign of God pertained to the spiritual and sacred; and, therefore, He had no influence on the material nor the secular. The spiritual and sacred was considered higher and better than the material or secular. Thus Christians were exhorted to seek the higher of the two. While there was an attempt to counter this erroneous notion, the church was ultimately unable to completely escape the dominant thoughts prevailing at that time (Walsh & Middleton, 1984, p. 108).

Under this split mindset the church produced only a split outreach, concentrating on saving souls but neglecting the physical needs (Padilla, 1986). For Christian education, it meant that neither God nor the worldview presented in the Bible had any relationship with the subjects nor with the purpose of education. God and the Bible pertained to the spiritual and sacred. The

content of the curriculum was not affected by the spiritual because it was outside the realm of governance of Christ.

Holistic biblical worldview.

In contrast to the dualistic view where God's sphere of influence is seen as limited to the spiritual and sacred, a holistic biblical worldview sees Christ as the Lord of all creation, as noted in the words of Kuyper (1880), "there is not a square inch in the whole domain of our human existence over which Christ who is Sovereign over all, does not cry, Mine!" (p. 26). A holistic worldview sees only one single reality in which God is Lord over all. Everything is sacred. Everything is important. Everything has unity and coherence. There is no division between the spiritual and material where one aspect is greater or more important than the other. A holistic biblical worldview begins with God who created all things and ends with God. Fall came through man's sin. Christ came to redeem and restore all things back to God. The subjects reveal the aspects of God's creation and explain how His world works. Mankind was placed on earth to steward over His creation. This is the central theme and the foundation of the Christian worldview that defines the purpose, the direction, the method and the curriculum for Christian education (Edlin, 2015; Van Dyk, 2000, pp. 27-28).

Obstacles to Transformation

Although transformation was what a Christian education should bring, this was not a process that happened automatically in Latin America.

Inability to articulate the Christian worldview.

The understanding of the role of the church in society will be determined by the worldview it embraces (Padilla, 2003). Historically, dualism has been the predominant

worldview of the church and has limited its influence and impact in the world (Padilla, 1986). This limited understanding spread to all aspects of the church's ministries and education has been no exception.

Crenshaw (2013), Glazer and Talbert (2005) conducted studies to determine the impact and implications of faith in the practice of teaching. In determining the worldview of the participants, studies revealed that while there was a clear moral orientation to their practice, teachers were unable to clearly articulate a biblical worldview. Most often, these articulations were broad doctrinal statements using Christian or theological terms, or represented denominational traditions or were general and vague religious statements. For most teachers in the studies, the Christian worldview had to do with a moral life and personal testimony. Study participants were unable to explain what guided the direction of their curriculum, methodology, or pedagogy. In some cases, participants believed that faith should not be imposed in the classroom.

Wood (2008) found that comparing K-12 teachers' educational preparation with public school and Christian education showed minimal differences in their worldview. Only a small segment formed under classical Christian education fared significantly better (Wood, 2008). Teachers were not able to provide a biblical worldview because they could not give what they did not have (Barna Group, 2009a).

This lack of clarity in understanding what a worldview is and inability to articulate a biblical worldview was evident in the vision and mission statements of Christian schools, including for higher education (Cardus, 2011; Crenshaw, 2013;). The references made in the vision and mission statements of schools were more of an ideal to follow such as "shaping

leaders for the future,” “transforming the next generation,” and “transforming the world for Christ,” -- indicating official intentions that did not match the operational intentions (Edlin, 2015).

Crenshaw’s (2013) findings traced the teachers’ inability to satisfactorily articulate a biblical worldview to their teacher education training which also lacked a clear worldview articulation. There were ideals held to follow without necessarily being a decisive, intentional and all-embracing commitment to bring about transformation in the world (Crenshaw, 2013).

An unclear purpose.

In the documents declaring the *Christian World View of Education* from the Coalition on Revival (Lappert, 1989) the following affirmations were made about Christian education: “ a) The primary purpose of education is to both to reveal God and to bring students into conformity with His revealed will, b) The ultimate goal of education should be to orient human beings biblically toward the knowledge of God, humanity, and the rest of God’s creation, in order to prepare them to take their places in family, Church, and society to the glory of God and in the service of Christ’s Kingdom and their fellowman” (p. 1). However, these declarations stand in sharp contrast with a predominance of a theme on the failure of Christian education in bringing about significant social transformation (Barna Group, 2004; Brickhill, 2010; Cardus, 2011; Crenshaw, 2013; Glanzer & Talbert, 2005; Wood, 2008). Crenshaw (2013) sought to examine how several Christian universities prepared future K-12 social studies teachers for transformation through social engagement. The findings revealed that despite most of the schools’ stated orientation and the godly commitment of the teachers, there were gaps in the integration of faith and learning at the point of engagement with the world. This gap could be traced to an unclear

understanding of what a biblical worldview is; in fact, a dualistic underlying worldview that resulted in an equally unclear purpose and ultimately in short-reached transformational impact.

Not being familiar with the place of action.

Wolterstorff (2004) asserted that in order to be a transformational education, social analysis is indispensable (p. 89). Teachers need to understand the world in which they teach if they are going to enable their students to understand the world where they live. Effective transformation is not possible without having an intimate understanding of the social context and habitat of the students (Wolterstorff, 2004). Teachers operate in several worlds simultaneously: the world of the classroom, the world of the school and the ambient world enfolding the school (Van Dyk, 2000). Cardus (2011) showed that most Christian educational institutions tended to focus almost entirely on the first world and second world, but minimally on the largest world, the community in which the school existed. Much like the seed that is planted in a particular soil, a school planted in a community with particular characteristics will invariably find elements that will facilitate or impede transformation (Holloway, 1999). This is where the opposing or competing worldviews are lurking to infiltrate and silently overpower the classroom (Van Dyk, 2000, p. 114). An education worldview that does not take into account the importance of this larger world will ultimately fail in bringing significant transformation (Wolterstorff, 2004). This is because the community is often the critical place of encounter between the worldviews of the school and the community and its most direct platform of action. An education that views the community as a key place of impact and as a territory claimed by Christ will be vastly different in approach from one that views it as outside the realm and interest of Christ.

Under the holistic biblical worldview, the ways of the people and their affairs are the concern of the church, therefore, the concern of Christian education. The holistic worldview

understands that because the express object of God's affection is for the inhabitants of this world, (as Jesus declared in John 3:16) Christian education must center on the same objects: the society, its people and their ways, their affairs and concerns. An education of non-involvement cannot be transformational (Wolterstorff, 2004; Crenshaw, 2013; Cardus, 2011).

Lacking the tools to teach Christianly.

Another obstacle to transformation was the lack of adequate tools for teacher training to teach Christianly (Van Dyk, 2000): a curriculum content, pedagogy and methodology that reflected a faithful holistic biblical worldview. Teachers lacked the ability to integrate learning with faith and were unable to systematically develop course plans based on a sound holistic biblical worldview (Crenshaw, 2013). In the case of Latin American Christian schools, this gap was more pronounced partly due to the relative newness of Christian education as well as resources for teacher training. In most cases, what made an education Christian was that the teacher was a Christian while the subjects taught were totally secular in content.

Keys for Transformation

Educating for shalom.

Wolterstorff (2004) proposed what he thought was the right purpose for Christian education: an education for shalom. Several models for Christian education have been considered throughout its history: service, humanist, academic-discipline and vocation. Wolterstorff (2004) believed that none of these in themselves were able to fulfill adequately the scope of the transformative power inherent in the Christian faith. The shalom model served as a ground that included and explained all the other models and satisfied Christ's mandate for bringing redemption, restoration and flourishing of the places where we are sent (Wolterstorff, 2004).

The idea of bringing shalom transformation through education echoed with Freire's (2000) ideas which declared that the chief purpose of education was to liberate the people through the practice of freedom by which they could deal critically with reality and take an active part in transforming their world. To bring freedom and transformation for the flourishing of humanity seemed to capture more faithfully the essence of Christian education. This idea of shalom transformation was inherent in the gospel and was defined by a change that was always for the better and higher, beginning with transformation at the individual level that spread to the social level (Wolterstorff, 2004). Therefore, a Christian education that did not bring shalom transformation did not carry the genuine seed of a biblical worldview.

Evaluating for shalom.

Inspired by the thoughts of Wolterstorff (2004) on the idea of educating for shalom, So (2013) conducted a study with a class at a Christian school in South Korea using tools for assessment of learning that promoted shalom in the students and the class. The study was motivated by the concern that despite using a curriculum content faithful to a biblical worldview, neither the students nor the class experienced an effect of shalom after a period of academic assessment. So's aim was to suggest that learning assessment or education evaluation be identified as a single theory in Christian education--not separate in worldview from the curriculum content or any of its parts. Through the study, So (2013) argued for the process of the assessment and evaluation of learning to be an integral extension of learning instead of being a final step of learning.

So (2013) identified two main methods of evaluating learning in educational practice. The first method was by scoring and ranking students into success and failure categories. The second method was by improving or adjusting the teaching and learning method based on the

outcome of the assessments. In the first method, the evaluation was focused on the content learning while the evaluation in the second, evaluation extended to both the learner and the teacher.

So (2013) observed that although most Christian schools agreed and tried to fulfill the purpose of education by following content selection and methods, the learning evaluation methods did not deviate significantly from that of secular education. Following Wolterstorff's (2004) thoughts, So (2013) argued that evaluations must be made according to the standards of a biblical purpose of education--for responsible actions, gratitude and shalom. These standards must be evident by service, recovery of the community (others) and by celebration.

To test these concepts, So (2013) designed evaluation tools integrating opportunities to demonstrate these qualities without sacrificing mastery of content and skills. So (2013) reported a remarkable change in spirit in her students: the assessments created cooperation, mutual affirmation, joy and wonder towards God and His world. There was clear evidence for a heart of service and gratitude. The sum of these internal transformations was bound to be reflected in the external causing a ripple effect in the community.

Clear articulation of the vision and mission.

Each school must know why it exists in a particular community and for what purpose. The vision and mission statement of schools can be flawed if there is a weak understanding of its worldview. This seemed to be precisely the Achilles heel of Christian education. Weak understanding leads to weak articulation and ultimately to weak implementation (Barna, 2009a; Cardus, 2011; Crenshaw, 2013; Van Dyk, 2000, p. 19).

Choi (2013) illustrated the above principle by describing how a Christian university was birthed in response to a specific need in his nation of South Korea. At the time education in South Korea was undergoing through a crisis. Public education had failed to provide adequate training for their students to meet the challenges of the 21st century global world. Other alternative schools (mostly Christian schools) had also failed to provide a distinctly Christian education due to secularization. Created to meet this need, Christian University X was established on a solid biblical worldview foundation with the vision to “educate honest and competent global leaders through total education, integrating faith, learning and life together combining moral and academic training geared for today’s global and information era” (Choi, 2013, p. 1). Choi (2013) reported that the Christian University X startup was evaluated as one of the most successful ones in South Korea in terms of bringing transformation. He attributed this success to a clear ultimate purpose, foundation, and concrete goals of Christian education, and strategies implemented for an age of transition (Choi, 2013). Some of these concrete goals were expressed in concrete teaching actions such as the emphasis placed on the moral preparation of the students as future agents of change in the global world. The vision and mission were not only clearly evident in the course syllabi. The actual training in how faith and leaning will engage with the world was entirely incorporated in the courses. For example, all students were required to take a Christian worldview course to understand the biblical perspective in a pluralistic world. Preparation for global leadership required ability and character development. These illustrations stood in sharp contrast with the report given earlier by Crenshaw (2013) about the gap observed between the stated worldview and the actual implementation of the worldview in the teaching.

The role of the teacher.

The ultimate end of Christian education is discipleship in the likeness of Christ (Romans 8:29) to serve God through serving others in all areas life. Christians believe their calling to be salt and light in this world: to be radically transformational (Matthew 5:13-16). Because Christian education originates from this calling, it has the power to be radically transformational in the world. As the leaders and guides in the classroom, teachers have the critical key to facilitate the transformative process in the students and in turn, make these students transformational where they will be planted (Choi, 2013). Therefore, there cannot be too much emphasis placed on the important role of the teacher and on the necessity to provide all the tools to turn them into transformational teachers. Christian teachers must be personally committed to Jesus Christ and must model Christian love and the fruits of the Spirit. But these characteristics alone are not sufficient for teaching Christianly. The teachers needed to possess “leadership skills and competence in the knowledge of subject matter and ability to prepare and implement effective lessons” (Van Dyk, 2000, p. 115).

Addressing the deficiency with inadequate worldview formation in Christian teacher preparation in the classrooms, Wood (2008) suggested a good curriculum with a biblical worldview was a good first step. However, Akers and Moon (1980b) and Choi (2013) contended that a biblical worldview must happen first within the teacher. The application of the worldview, or the integration of faith, must take place first within the teacher’s mind and heart before he or she can teach it. “Integration is the natural process of the Christian mind and heart that takes captive every thought to make them obedient to Christ” (Choi, 2013, p. 2). Choi (2013) believed that nominal Christian teachers could not truly present a biblical worldview because of the immaturity in Christian reasoning. They would likely experience inner frustrations and conflicts

created with other preexisting worldviews that shaped their knowledge base and teacher training. Conversely, any mature Christian teacher will be able to integrate faith, science and life together with any textbook, be it Christian or secular (Choi, 2013). Thus, while textbooks based on a biblical worldview might be helpful, it is by the renewed mind of the Christian teacher through the work of the Holy Spirit that integration could take place (Choi, 2013).

Training for critical involvement.

In reflecting on how the Christian education's relationship should be to the world, Wolterstorff (2004) used the concept of critical involvement. The role of Christian education is not limited to teaching under a biblical worldview, but it must move to the point of this critical involvement, not leaving the students with non-involvement. There cannot be transformation with non-involvement. Theron (2013) conducted a qualitative study on the impact of Christian higher education in students in Mozambique. The specific issue addressed was on the problem of corruption and how this affected their immediate communities and their own lives. Through the discussion-oriented style of the class, students gave testimonials of their own individual transformation and understanding that came through the necessity for transformation to take place at the individual level before it could be expected at the global level. Students saw specific ways they could change to join in the fight against corruption in their own communities (Theron, 2013).

Perkins (1987) spoke of the need for a sense of identification and ownership with the issues plaguing our communities if Christian churches were to be effective in bringing change. A biblical worldview sees the world with a real face and a real place; it is the community and neighborhoods in our midst (Perkins, 1987). Wolterstorff (2004) said that the justice or shalom model of education is one that sees the suffering world as the chief beneficiaries of Christian

education. Crenshaw (2013) saw the weakness of connection between education and the suffering world as an important reason why students failed to engage with social concerns. This weakness in connection, in turn, results from the vague articulation of the school mission statements regarding transformation (Crenshaw, 2013). There cannot be real transformation without a deliberate and strong commitment to the recipient of transformation (Wolterstorff, 2004).

Nurturing for justice and moral development through empathy and caring.

Another key related to training for critical engagement that Wolterstorff (2004) espoused was the importance of a nurturing community comprised of caring adults to shape moral character (Carlie, n.d.). Cooper (2004) noted in his study that the interaction between teachers and students played a key role in predisposing the attitudes of children towards a moral formation for justice and empathy, love and concern for others. Holloway (1999) further found that the Christian notion of children being image bearers of God directed the teachers and other adults to treat children as unique and special. Children learn to appreciate and value others as they experience appreciation and emotional empathy in teachers and other caring adults. Hoffman (2000) and Vogt (2003) further verified the relationship of empathy and moral development and its implications for caring and justice. Children learn to value others as they feel valued by their closest caring adults in the community which are comprised first family members, then teachers, pastors, friends and community members (Holloway, 1999). Theron (2013) and Choi (2013) stated that above all objectives, Christian education needed to nurture individuals with a strong moral character through biblical worldview if they are to be transformational leaders in their contexts.

Evaluating for Transformation

Evaluation for student transformation that links specifically with social change has been precisely the weak point for Christian education (Brickhill, 2010; Cardus, 2011; Crenshaw, 2013; Wood, 2008). Beerens (2013), however, proposed an evaluative tool which seeks to make this link. Beerens (2013) expressed the ideals for desired student outcomes resulting from a biblical worldview education and curriculum. The outcomes are grouped into ten key categories for guiding and assessing towards successful student transformation (see Appendix D). The Beerens (2013) Student Flourishing Indicators have the following areas of growth:

- a) Passion for learning
- b) Desire to serve and make a difference
- c) Ability to see connections
- d) Blooming where planted
- e) Thinking divergently and creatively about problems/solutions
- f) Ability to demonstrate empathy for others
- g) Desire to act morally and ethically across all aspects of life
- h) Understanding how God has gifted and called them
- i) Demonstration of effective life habits and spiritual disciplines
- j) Determination to bring joy and hope into the lives of others

Beerens (2013) sought to make the connection between flourishing and curriculum, to create what he called “truth revealing learning” by which students were led into wonder: understanding creation, having a sense of awe, beauty, complexity, design and excellence; wisdom: understanding the theme of fall and redemption, the master story, gaining perspective and discernment and work: whereby the students take an active participation in God’s work of restoration by discovering and using their God-given talents and gifting to serve others and the world (see Appendix D).

Beerens (2013) proposed the following qualities that should be present in a flourishing Christian education: connection, competence, coherence, contribution, community, creativity and Christlikeness. Of these, Beerens noted that connection and Christlikeness were distinctive or inherent with being a Christian (Beerens, personal communication, March 26, 2015). The rest of the qualities--competence, coherence, contribution, community and creativity--were more contingent on the understanding and development of each individual teachers, meaning that, “the teacher or institution will help students flourish in these 21st century skills only to the degree that we are congruent with Biblical principles” (Beerens, personal communication, March 26, 2015).

Methods

The ultimate aim of this study was to discover if there was evidence in the field that Christian education guided by a distinct holistic biblical worldview was more effective than dualistic or secular education in producing positive student outcomes consistent with positive change for social transformation in the community in Nicaragua. The measure used to evaluate this was Beerens Student Flourishing Indicator (see Appendix D), which aligned well with these goals. The study was conducted using a quantitative research method to evaluate for perceptions and attitudes of teachers’ worldviews and their impact on the student outcomes in the local

schools (Rudestam & Newton, 2007; Shutt, 2012). The quantitative study was conducted using a non-experimental method because it sought to describe perceptions and attitudes without any manipulation of an independent variable (Patidar, n.d.).

Participants

The participant selection process relied on purposeful sampling (Patton, 1990) based on the criteria established as good candidates for the research study. The decision for selecting Nicaragua as a research field was threefold: first, in order to make more evident the impact of transformation, the participants had to have a condition that needed transformation. Second, it had to be at a place where its inhabitants understood the impact of worldviews because of their history. Third, it had to be a place where a significant work had been done with a biblical holistic approach to education. Nicaragua met all these criteria.

For the proposed study, three similar fourth-grade classrooms in Nicaragua participated in the quantitative study representing a public school, a dualistic Christian school and an intentional holistic, biblical worldview-guided school. All schools were located within similar lower socio-economic urban communities. From each school, seven teachers and twelve students were selected randomly without gender specification.

For the selection process, the entire research proposal was first distributed to key members of a leading Christian school association in Nicaragua, ACECEN. Discussions resulted in their recommendations on the best suitable participants for the research according to the criteria established. Once the selection was finalized, a letter was sent via email with a personal referral from the president of ACECEN to each head of the schools to procure his or her consent to the study along with a copy of the survey questions to be distributed to the teachers and the students.

The selection of the participants was contingent upon the following criteria:

- An elementary school functioning within the same or similar community in Nicaragua where the community is considered needing transformation: there are signs of poverty, of low socio-economic context.
- The student participants had to be fourth graders. Gender was mixed and no specifications were established for a demographic ratio.
- Students had to have been part of the educational institution for at least one year.
- The researcher must not have had any previous contact with the selected schools.

Description of Participating Schools

School A: Public school with over 20 years of service, K-12, 250 students, 15 teachers. The school was located in a lower socio-economic community, situated next to a local Christian church with a strong community presence. Several of the teachers in the school professed to be believers. 12 students and 7 teachers participated in the study.

School B: Christian school with less than 10 years of service, K-9, 150 students, 10 teachers. The school was located within a lower socio-economic level in a downtown area established with a mission to restore the community. This school employed a more traditional, dualistic approach. 12 students and 7 teachers participated in the study.

School C: Christian school with over 20 years of service, K-12, 250 students 15 teachers. The school was located in a lower socio-economic level community once considered highly unsafe. This school conscientiously sought to employ a biblical holistic approach. 12 students and 7 teachers participated in the study.

Materials

Two instruments were used in this study. The first was a teacher survey (see Appendix B); the second, a student survey (see Appendix C). Both instruments were designed by the researcher. Pilot tests were conducted one month prior to the field trip by sending copies of the teacher survey to two non-participating teachers who took the surveys. A pilot study was not possible for the students due to financial limitations but the pilot test teachers approved the survey for the students.

Design

The design of the teacher and student surveys were based on a descriptive non-experimental research method (Patidar, n.d) that sought to describe the nature of the education as it existed at the time of the study with respect to the variable of worldview. The survey questions for the teachers were originated from the five worldviews categories outlined by McCallum (1997): naturalism, pantheism, theism, spiritism and postmodernism. (See Appendix A). The teachers' surveys were divided in two sub-sections: one section focused on teachers' general perceptions of the school and community relationship, parental involvement, worldview presented in the classroom, curriculum coherence with schools worldview orientation, views on education reflecting a particular worldview and purpose of education. The second section asked the teachers to assess their own understanding and professed worldview using categorical type of questions. The variable was the worldview. The constants were grade level, number of teacher participants and similar community conditions.

The student surveys was designed as multiple choice questions using a three-point Likert scale where strongest tendency always corresponded with highest tendency towards holistic biblical orientation. The data was collected and grouped according to similarities and differences

in attitudes and outlooks. The variable was the worldview. The constants were grade level, number of student participants and similar community conditions. The results for the student surveys were gathered, grouped and then analyzed for student flourishing evidences according to the Beerens Student Flourishing Indicator (see Appendix D).

Procedure

Before conducting the study, recruitment letters were sent and accepted by the prospective participating schools and email communication was sent to the heads of each school through the director of the ACECEN (Nicaraguan Association of Christian Schools) in Nicaragua along with the summary of the research proposal and a copy of the proposed survey questions to be distributed to each selected head of school prior to the researcher's arrival into the field. School visits were scheduled and received due consent via email. A field visit was arranged one month after the preliminary presentation and introduction of the study.

The researcher used these sources for data collection. First, the survey questions from the literature review, particularly from the five worldviews chart designed by McCallum (1997) were used to determine evidence of any understanding of what worldviews were both in the students as well as teachers. The survey questions used deliberate worldview terms under the assumption that those who had the opportunity to learn about worldviews would recognize the nature of the questions and that those who were unfamiliar would most likely not understand the direction of the questions. A quantitative method was used to survey participants from three similar fourth grade classrooms. Students and teachers of each school were surveyed through multiple choice questions to get a sense of worldview understanding, perceptions and attitudes. The students' preexisting notions and beliefs brought from home and community were surveyed along with students' perceptions of the teachers' worldviews as presented through their teaching.

Second, ACECEN parameters for successful holistic worldview teaching were also referenced in preparing the surveys. ACECEN provided the researcher with the evaluations documents that it had gathered over ten years (see Appendix E). These documents provided important insight on how the Nicaraguan Christian teachers interpreted Christian worldview curriculum for their local application and how they evaluated its effectiveness through quantitative and qualitative records. The source served as an important point of comparison with the results of this study.

Results

Data Analysis

Student survey responses were gathered, sorted and interpreted using the Beerens Student Flourishing Indicators (See Appendix D). A connection was made between the curriculum and student flourishing or transformation where the curriculum-related questions were surveyed to look for transformation indications (see Appendices D and F). The relationship between the school's education worldview orientation and outcome as perceived by the students' responses was analyzed using the Beerens Student Flourishing Indicators categories (see Appendix D):

- Passion for learning.
- Desire to serve and make a difference.
- Ability to see connections.
- Blooming where planted.
- Thinking divergently and creatively about problems and solutions.
- Ability to demonstrate empathy for others.
- Desire to act morally and ethically across all aspects of life.
- Understanding how God has gifted them and called them.

- Demonstration of effective life habits and spiritual disciplines.
- Determination to bring joy and hope into the lives of others.

In addition, teachers of each school were surveyed to determine how their worldview impacted their teaching, curriculum content and sense of purpose of education using the theoretical lenses applied to this study:

- *Biblical worldview*: teachers exhibit a solid understanding of what a worldviews is and how a holistic biblical worldview differs from others, including secular Christian dualist approaches.
- *Purpose of education*: teachers clearly see the purpose of their teaching and find total congruence in the articulation of the curriculum with a biblical worldview.
- *Integration of faith and learning*: teachers present their lessons with coherence and unity and students perceive the interconnectedness between faith and learning.
- *Justice model for education*: teachers exhibit a commitment to instill a love, concern and desire to serve the community through their education (Crenshaw, 2013; Theron, 2013, Wolterstorff, 2004).

Findings

Teacher Survey Results

The first research question was: How do teachers understand their own worldview orientation? The question sought to analyze how teachers viewed their own worldview orientation in order to understand how this might impact their teaching and how it might impact students' perceived attitudes towards transformation. In order to answer this question, the teachers responded to the two-part survey. The participants self-assessed their views on each of

the following areas: view of reality, view of man, view of truth and view of values. These were categorical, non-Likert questions analyzed for frequency where the total number of responses for a theistic orientation for each sub-category were added and divided by the total number of possible responses (Table 1).

Table 1

Teacher Worldview Self-Assessment: Number Who Identify as Theistic

	School A <i>n</i> = 7	School B <i>n</i> = 7	School C <i>n</i> = 7
View of Reality	4	6	7
View of Man	5	1	7
View of Truth	3	6	7
View of Values	1	3	7
Total Theistic Responses	13	16	28
Percent of Total Responses	46%	57%	100%
Total Possible Responses	28	28	28

School C, representing the biblical worldview education, had decisively higher scores for each sub-category. Comparing Schools A and B, School B, with a dualistic orientation, scored the lowest for a theistic view of man while School A, representing the secular orientation, scored noticeably higher than School B; however, on the view of truth, Schools B and C, which were both Christian schools, scored similar results while School A showed the lowest theistic orientation on truth. On the view on values, School A showed the lowest theistic tendency while School B had middle ground position for theistic and School C showed the most clearly decisive theistic tendency. Overall, School C showed a clear and decisive theistic orientation, while Schools A and B were more similar with a less decisive theistic orientation.

The second research question was: How do teachers perceive the worldviews of the community where the schools function and how are they seen as contributing or interfering with the education process?

In order to answer this question a 3-point Likert scale was used for the teachers' opinions on how the community and the school shared the same values (Table 2). Question 2 of the teacher survey addressed this issue (see Appendix B).

Table 2

Teacher Perception of School vs Community Values

	School A <i>n</i> = 7		School B <i>n</i> = 7		School C <i>n</i> = 7	
	<i>Mdn</i>	<i>SD</i>	<i>Mdn</i>	<i>SD</i>	<i>Mdn</i>	<i>SD</i>
Community: School represents community values	2	.49	3	.69	3	1.41

In the category of community and school values, there was a meaningful statistical difference in how compatible teachers felt the school's values were with their community. The two-tailed T-value of Schools A and B was 2.683282. The P-value was 0.019916 and the result was significant at $p < 0.05$. With School C, the standard deviation was high and the result was not significant: the T-value compared to School A was 1.263228, the P-value was 0.11525 and the result was not significant at $p < 0.05$. Compared to School B, the T-value was 2.78543. The P-value was 0.007358 and the result was significant at $p < 0.05$. Thus, schools A and B saw significant difference between the values of the school and community while for School C, the result was inconclusive.

The third research question was: Is it possible to present an education with a neutral perspective without entering into conflict with the community's worldviews? Is an integral

education possible without a religious or spiritual component? Questions 3, 10, 14 and 22 of the teacher survey (see Appendix B) were grouped and teachers' perceptions are shown in Table 3.

A 3-point Likert scale was applied.

Table 3

Teacher Perceptions: The Neutrality of Education

Likert Scale: 3 = Strongly Agree	School A <i>n</i> = 7		School B <i>n</i> = 7		School C <i>n</i> = 7	
	Mdn	SD	Mdn	SD	Mdn	SD
Integral: Education is not neutral and needs religious and moral components.	1	.97	2.5	.84	3	.57

Regarding the relationship of faith and religious/moral components with integral education, School A scored the lowest and School C scored consistently very high. There was no statistical difference between schools A and B: T-value = 1.616017, P-Value = 0.055959 and the result was not significant at $p < 0.05$. On the other hand, the T- and P-values of School C were clear: T-value of A and C was 4.369445, P-Value was 2.8E-05. The result was significant at $p < 0.05$. The T-value of B and C was: 2.78543. The P-Value was 0.007358 and the result was significant at $p < 0.05$.

The fourth research question was: How does the worldview guide the purpose, curriculum, pedagogy and methodology? This question sought to find how teachers see the worldview orientation of education in their schools and how the curriculum is coherent with the worldview. Table 4 shows the areas of apparent agreement for a theistic orientation. The worldview questions in the teacher survey were numbers 13 and 19 and questions related to coherence of curriculum with worldview were 6, 7, 11 and 25 (see Appendix B).

Table 4*Teacher Perceptions: Worldview and Integral Curriculum*

Likert Scale: 3 = Strongly Agree	School A <i>n</i> = 7		School B <i>n</i> = 7		School C <i>n</i> = 7	
	<i>Mdn</i>	<i>SD</i>	<i>Mdn</i>	<i>SD</i>	<i>Mdn</i>	<i>SD</i>
Worldview practiced in teaching is theistic	3	.61	3	.63	3	.76
Integral Education: Curriculum is coherent and the parts work together to form the whole	3	1.07	3	.98	3	1.09

While in the self-assessed worldview orientation, Schools A and B scored weaker than School C (Table 1); in practice, all three schools indicated their teaching is theistic and there was no significant difference in responses. For Schools A and B, the T-value for this area was 0.303642 and the P-Value was 0.381909. The result was not significant at $p < 0.05$. For Schools B and C, the T-value was 0.813029 and the P-Value was 0.211792 and the result is not significant at $p < 0.05$. For Schools A and C, the T-value was 1.099683, the P-Value was 0.140774 and the result was not significant at $p < 0.05$.

The schools also did not differ significantly in responses that the curriculum they used was coherent and consistent with their worldview. For Schools A and B, the T-value was 0.390812. The P-Value was 0.348737 and the result was not significant at $p < 0.05$. For Schools B and C, the T-value was 0.514811, the P-Value was 0.304393 and the result was not significant at $p < 0.05$. For Schools A and C, the T-value is 0.123894, the P-Value is 0.45093 and the result is not significant at $p < 0.05$.

The fifth research question asked: What is the purpose of Christian education and how is a biblical transformation defined? Table 5 shows responses to categorical questions evaluated looking for frequency data for areas of agreement on teachers' perceptions and areas of agreements for a biblical worldview on the purpose of education as addressed in question 4 of the teacher survey (see Appendix B) and specifically how biblical education, as addressed in question 21 of the teacher survey, was seen as related to justice (see Appendix B). Regardless of the worldview orientation, all three schools believed that education had a have a moral component which ultimately related to the greater common good of others.

Table 5

Teacher Perceptions: Areas of Agreement

Total for categorical responses	School A <i>n</i> = 7	School B <i>n</i> = 7	School C <i>n</i> = 7
Purpose of education: integral formation (nominal question) Total responses: 14	7	6	7
Justice: Students should be educated to serve community Total responses: 7	6	7	7

In summary, the greatest difference found among the three schools was in professed worldview, as shown in Table 1, with School C, 100% for theistic orientation in view of reality, man, truth and values, and in the view that education should be neutral (shown in Table 3). There was great commonality on the purpose of education and this related to justice and service to community (shown in Table 5) with strongly agreed perceptions. All three schools believed that

the chief purpose of education was to ultimately serve the greater community and seek the common good.

Student Survey Results

The final research question was: What does a biblical transformation through education look like in a real setting and what are the keys that contribute towards its success?

The Student Survey questions were grouped according to Beerens Indicators for Student Flourishing (see Appendix F). The primary intent of this study was to compare the results in student outcomes for Christian education where either a dualistic or holistic biblical worldview education was used. The secular school student outcomes were also compared for areas of similarity or differences where applicable. (It must be noted that a significant portion of the student survey asked explicitly Christian faith related questions that would not be addressed in secular education settings). Schools B and C were compared for meaningful scores for each indicator category (refer to Appendix F for specific questions). The student responses are shown in Table 6 and Table 7.

Table 6*Student Responses: Frequency of “Strongly Agree”*

Beerens Criteria for Student Flourishing	School A <i>n</i> = 12	School B <i>n</i> = 12	School C <i>n</i> = 12
Passion for learning Number of responses: 48	47	45	46
Desire to serve and make a difference Number of responses: 48	44	34	42
Ability to see connections Number of responses: 120	102	96	111
Blooming where planted Number of responses: 36	33	25	32
Demonstrate empathy Number of responses: 180	154	129	154
Desire to act morally and ethically across all aspects of life Number of responses: 36	31	22	30
Understanding how God has gifted and called them Number of responses: 192	173	149	180
Demonstration of effective lifelong habits Number of responses: 84	62	67	69
Determination to bring joy and hope to others Number of responses: 24	22	16	20
	Summary Of Indicators		
Total number of possible responses: 768	668	583	684
Percentage (%) of total responses	87	76	89

Table 7*Student Responses Expressed in Median and Standard Deviation*

	School A <i>n</i> = 7		School B <i>n</i> = 7		School C <i>n</i> = 7	
	<i>Mdn</i>	<i>SD</i>	<i>Mdn</i>	<i>SD</i>	<i>Mdn</i>	<i>SD</i>
Passion for learning.	3	.29	3	.24	3	.45
Desire to serve and make a difference.	3	.28	2.5	1	3	.33
Ability to see connections.	3	.62	3	.58	3	.47
Blooming where planted.	3	.40	3	.88	3	.32
Moral teaching and empathy.	3	.52	3	.74	3	.43
Desire to act morally and ethically across all aspects of life.	3	.59	3	.55	3	.47
Understanding how God has gifted and called them.	3	.48	3	.72	3	.36
Demonstration of effective lifelong habits.	3	.76	3	.53	3	.65
Determination to bring joy and hope to others.	3	.28	2.75	.92	3	.38

Areas where the T- and P-values indicate a significant statistical difference at $p < 0.05$ included the following: *Desire to serve and make a difference*: School B had a lower score and Schools A and C had similar scores. The T-value for A and B was 3.224629 and the P-value was 0.000868. For Schools B and C, the T-value was 2.843027 and the P-value was 0.005482; *Ability to see connections*: Schools A and B had similar scores and School C had the high score. The T-value for Schools B and C was 2.234006 and the P-value was 0.013208; for Schools A and C the T-value was 1.756022 and the P-value was 0.040185. For *Blooming where planted*: Schools A and C had similar scores while School B had the lower score. The T-value for School A and B was 2.769699 and the P-value was 0.003589. For Schools B and C, the T-value was 2.859228

and the P-value was 0.002796. For *Empathy and values*: again, Schools A and C had similar scores with School B as the low score. The T-value for Schools A and B was 3.293205 and the P-value was 0.000545. For Schools B and C, the T-value was 4.00922 and the P-value was 2.07×10^{-5} . Under *Desire to act morally and ethically in all areas of life*: School B had the low score while School C had the high score. Schools B and C had a T-value of 1.83948 and a P-value of 0.035043. For *Understanding how God has gifted and called them*: School B had the low score and Schools A and C were similar. Schools A and B had a T-value of 3.40225 and a P-value of 0.000334. Schools B and C had a T-value of 4.768913 and a P-value of .00001. For *Demonstration of effective lifelong habits*: School A had the high score while Schools B and C were similar. For Schools A and B, the T-value was 1.753304 and the P-Value was 0.040698. For *Determination to bring joy and hope to others*: Schools A and C had similar scores and School B was lower. The T-Value for Schools A and B was 2.747285 with a P-Value of 0.004276. For Schools B and C the T-value was 2.247402 and the P-value was 0.014747. Finally, for *Determination to bring joy and hope to others*: Schools A and B: the T-value was 2.747285 and the P-Value was 0.004276. For Schools B and C, the T-value was 2.247402 and the P-Value was 0.014727.

Between the two Christian schools, students indicated greater significant flourishing under biblical worldview for School C. Four specific question groups directly related to curriculum seemed to have influenced all the remaining categories of attitudes for transformation suggesting that curriculum did play an important role in student outcome.

Discussion

Summary

This research study ultimately sought to determine if a biblical worldview education had greater effectiveness in bringing transformation that connected with attitudes towards service for the community and social engagement than a dualistic approach. A quantitative method was used to survey perceptions in students and teachers from three schools of varying worldviews. The findings showed significant difference between the dualistic and biblical and secular worldview education in the area of teachers' professed worldview and on the view of non-neutrality of education. Areas of greatest similarities were in the purpose of education existing for service to the community and the coherence between curriculum and the view that education must be integral. The student surveys indicated a significantly higher perception of student flourishing with School C under biblical worldview education as opposed to School B under dualistic worldview education. The student results from School A were unreliable due to the fact that the participants chose "Strongly agree" on many questions that were explicitly Christian in nature though as a matter of law public schools do not teach with a biblical orientation.

Implications and Recommendations

The results of the present research study seemed to suggest that there is a difference between a biblical worldview education and a dualistic education in producing student attitudes that incline them for transformation in social engagement that includes a sense of love, duty for community and concern for a just society as a result of a holistic biblical education. Any educational endeavor must be frequently evaluated against the objectives established. In responding to the question as to what transformation looked like in practice and what were the key factors in producing attitudes for transformation, it was evident that there is critical

importance in aligning purpose stemming from a holistic biblical worldview with a curriculum content and pedagogy that fosters a total nurturing of students by a caring environment, represented by the role of the teacher, parents and greater community at large. The ideal situation for successful Christian education with a holistic approach is that it is accompanied with a vibrant local church and community that shares and reinforces the same worldview and values.

Holloway (1999) pointed out how this dynamic relationship with community and school greatly enhanced the education process. Thus, one of the recommendations is to strongly encourage and include the community and the local church in conversations regarding Christian education.

For effective Christian schools, it is crucial to examine what is taught and how it is taught to measure its potential for impacting and transforming lives with the end view of raising key kingdom builders within the specific communities. Because ideas, especially worldviews, are not neutral, Christian schools cannot take the worldviews guiding their teaching lightly but must strive to be faithful biblically. Educational leaders and teachers must be encouraged to engage in frequent and regular conversations on how to maintain a worldview that is faithful to the biblical standards. Beerens (2013) suggested that teachers engage in frequent intentional conversations regarding curriculum articulation, scheduled reflection time and strive to grow as Christian teachers (see Appendix D). Future researchers are encouraged to conduct the same or similar studies with a larger sample, possibly using a mixed method study, to find more in depth data that this study was not able to provide due to the stated limitations below.

Limitations of Study

The present study purposefully selected three schools in a community of low socio-economic level with needs for transformation. The aim of the study was to get a general sense of

perceived worldview by the students and an equally general sense of the impact of a biblical education. The study was limited to comparing only one representative from each approach; therefore, it is considered insufficient for generalization. Possible issues that could have affected the reliability of the test results were clarity of the questions and honesty of the responders. There were questions that overlapped which in some cases strengthened the findings but in other areas made it more difficult to clearly see the distinctions. For these reasons, the study findings should be used only as indicators of general tendencies to spur further investigation.

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Appendix A

Five Main Worldviews

(adapted from the book *Christianity, a faith that makes sense* by Dennis McCallum)

	REALITY	MAN	TRUTH	VALUES
<i>Naturalism</i> Atheism; Agnosticism; Existentialism	The material universe is all that exists. Reality is "one-dimensional." There is no such thing as a soul or a spirit. Everything can be explained on the basis of natural law.	Man is the chance product of a biological process of evolution. Man is entirely material. The human species will one day pass out of existence.	Truth is usually understood as scientific proof. Only that which can be observed with the five senses is accepted as real or true.	No objective values or morals exist. Morals are individual preferences or socially useful behaviors. Even social morals are subject to evolution and change.
<i>Pantheism</i> Hinduism; Taoism; Buddhism; much New Age Consciousness	Only the spiritual dimension exists. All else is illusion, Maya. Spiritual reality, Brahman, is eternal, impersonal, and unknowable. It is possible to say that everything is a part of God, or that God is in everything and everyone.	Man is one with ultimate reality. Thus man is spiritual, eternal, and impersonal. Man's belief that he is an individual is illusion.	Truth is an experience of unity with "the oneness" of the universe. Truth is beyond all rational description. Rational thought as it is understood in the West cannot show us reality.	Because ultimate reality is impersonal, many pantheistic thinkers believe that there is no real distinction between good and evil. Instead, "unenlightened" behavior is that which fails to understand essential unity.
<i>Theism</i> Christianity; Islam; Judaism	An infinite, personal God exists. He created a finite, material world. Reality is both material and spiritual. The universe as we know it had a beginning and will have an end.	Humankind is the unique creation of God. People were created "in the image of God," which means that we are personal, eternal, spiritual, and biological.	Truth about God is known through revelation. Truth about the material world is gained via revelation and the five senses in conjunction with rational thought.	Moral values are the objective expression of an absolute moral being.

<i>Spiritism and Polytheism</i> Thousands of Religions	<p>The world is populated by spirit beings who govern what goes on. Gods and demons are the real reason behind "natural" events. Material things are real, but they have spirits associated with them and, therefore, can be interpreted spiritually.</p>	<p>Man is a creation of the gods like the rest of the creatures on earth. Often, tribes or races have a special relationship with some gods who protect them and can punish them.</p>	<p>Truth about the natural world is discovered through the shaman figure who has visions telling him what the gods and demons are doing and how they feel.</p>	<p>Moral values take the form of taboos, which are things that irritate or anger various spirits. These taboos are different from the idea of "good and evil" because it is just as important to avoid irritating evil spirits as it is good ones.</p>
Postmodernism	<p>Reality must be interpreted through our language and cultural "paradigm." Therefore, reality is "socially constructed."</p>	<p>Humans are nodes in a cultural reality – they are a product of their social setting. The idea that people are autonomous and free is a myth.</p>	<p>Truths are mental constructs meaningful to individuals within a particular cultural paradigm. They do not apply to other paradigms. Truth is relative to one's culture.</p>	<p>Values are part of our social paradigms as well. Tolerances, freedom of expression, inclusion, and refusal to claim to have the answers are the only universal values.</p>

Appendix B

Teacher Survey

Section A: Perceptions on community-school relationships, worldview orientation, curriculum coherence, neutrality of education.

1. I perceive the community where my school functions has an orientation predominately:
 - a. Religious
 - b. Neutral
 - c. Mixed
 - d. Resistant to religion
2. I perceive that my school represents the predominant values of the community in which it is located.
 - a. Slightly
 - b. Moderately
 - c. Strongly
 - d. No connection
3. I believe that education as a body of knowledge must remain neutral and should not mix with religious values.
 - a. I agree
 - b. I moderately agree
 - c. I disagree
4. Regarding the roll of education I believe that its fundamental task is:
 - a. Transmit and transfer knowledge to the students
 - b. Integral preparation of individuals for service to their communities
 - c. Perpetuate the values and traditions of the communities in which they reside

5. In regards to my perspective concerning the value of life in itself and its relation to education I would say my orientation is:
 - a. Existentialistic: "Significance is determined by each person's own self."
 - b. Deistic: "God created the world but is presently distant from daily life."
 - c. Theistic: "God created the world and is personally involved in daily life."
 - d. Naturalistic: "The material world is all that is real and understandable."
6. Regarding the subjects that I teach I would say that I see a lot of coherence, integration and unity with the other subjects.
 - a. I do not see unity. All knowledge appears fragmented and disconnected.
 - b. I sometimes see connections and relationships, but not always.
 - c. Many times I see the unity between the subjects and try to teach accordingly.
 - d. I see total unity and connection between the subjects I teach and the other subjects, and my students also feel the same.
7. I can distinguish clearly the orientation of the educational program I teach.
 - a. I agree
 - b. I moderately agree
 - c. I disagree
 - d. I think that education always needs to have a moral component for the development of the students.
 - e. Never, because education needs to stay neutral.

8. Sometimes because education needs to support the formation of civic duties in the students.
 - a. Almost always because education needs to be the transmitter of the values of the community.
 - b. Always because education has to do with the formation of a moral being in service to the community.
9. I would describe that education today faces great social challenges.
 - a. I agree
 - b. I moderately agree
 - c. I disagree
10. I believe that all education projects a philosophical base that dictates a specific orientation.
 - a. I agree
 - b. I moderately agree
 - c. I disagree
11. I would say that I know clearly what I am aiming for in my teaching.
 - a. I agree
 - b. I moderately agree
 - c. I disagree
12. The world is a world created by a divine being and my education reflects this notion.
 - a. I agree
 - b. I moderately agree
 - c. I disagree

13. I believe there is a difference in results in an education that is based on the notion of God from whom comes all knowledge.
- a. I agree
 - b. I moderately agree
 - c. I disagree
14. I believe it is possible to have an integral formation of a student without including a religious component.
- a. I agree
 - b. I moderately agree
 - c. I disagree
15. I believe that the philosophy that best reflects the educational approach in my institution is:
- a. Constructivist
 - b. Cognitivist
 - c. Conductivist
 - d. A combination of the above
16. When I think of my students I think that what I teach is not sufficient for their full development.
- a. I agree
 - b. I moderately agree
 - c. I disagree

17. I feel that I receive sufficient support from the parents of my students in the process of their development.
 - a. I agree
 - b. I moderately agree
 - c. I disagree
18. I feel very successful as a teacher because my students enjoy the learning process.
 - a. I agree
 - b. I moderately agree
 - c. I disagree
19. I feel that it is perfectly possible to be a religious institution and still produce bad results.
 - a. I agree
 - b. I moderately agree
 - c. I disagree
20. Which of the following reflects how you are teaching the origin of the world?
 - a. I don't know how the world came into being.
 - b. It's possible the world has been created by a divine being but there is no solid proof.
 - c. A divine being created this world intentionally

21. The goal of education is:
- a. Provide the knowledge necessary for the future career or vocation of the student
 - b. Develop the student in an integral manner for service to his community and therefore to God
 - c. Develop the student in an integral manner for service to the community because it is ethical
 - d. Enrich the intellect of the student.
22. Education needs to be presented in a neutral manner without inclining toward one perspective or another.
- a. I agree
 - b. I disagree
23. I am very satisfied with education in general as it stands today.
- a. I agree
 - b. I disagree
24. I think that the challenge most important that I encounter in teaching is:
- a. The predominance of the influence of the surroundings over my students
 - b. The predominance of the influence of the parents over my students
 - c. The predominance of the influence of the students' friends
 - d. "a" and "b"
 - e. "a" and "c"
 - f. "a," "b," and "c"

25. I see much coherence in the curriculum that I am assigned to teach.
- I agree
 - I disagree
26. Which of the following reflect your orientation regarding history?
- History is linear. It has a clear beginning and a clear ending.
 - History repeats itself
 - We know very well the present but we don't know where things started.
27. My definition of success in education is:
- A student that obtained the highest grades in each of his classes
 - A student that progressed integrally as a person although she did not get the highest grades in all of her classes.
28. My students see the sense in what they learn and appreciate it.
- I agree
 - I moderately agree
 - I disagree
29. I think that education is an occupation clearly pertaining to:
- The intellect
 - The heart
 - The intellect and the heart
30. I think that what my students struggle the most with learning is:
- Significance: they do not see the meaning or sense of what they are learning
 - Quantity of material
 - Capacity to acquire knowledge

Teachers Survey Section B: Self-assessed worldview orientation**WHICH REPRESENTS YOUR PERCEPTION OF YOUR WORLDVIEW?**

1. Vision of reality:
 - a. The material universe is all that exists. Nothing else, such as soul or spirit exists. Everything is explainable by natural laws.
 - b. Only the spiritual dimension exists. Everything is an illusion. Spiritual reality is eternal, impersonal and not knowable. Everything is part of God and God is part of everything and in everything.
 - c. There exists one God, infinite and personal. He created a finite world and all things material. The reality is both material and non-material. The universe as we know it had a beginning and will have an end.
 - d. The world is surrounded by spirits which govern the activities of the world. God and the demons are the real causes behind “natural” events. Material things are real, but have spirits associated with them in such a way that they can be interpreted spiritually.
 - e. Reality needs to be interpreted by means of our language and paradigms of culture. In this way, reality is constructed socially.
2. Man is:
 - a. Human beings are a knot in the cultural reality. They are the products of their social conditions. The idea that people are autonomous and free is a myth.
 - b. Human beings are unique creations of God. People were created “in the image of God”, which means that we are personal, eternal, spiritual and biological beings.

- c. Man is a product of chance from a biological process. Man is entirely material. One day man species will cease to exist.
 - d. Man is a creation of the gods just like the other creatures on the earth. Often the tribes or races have a special relationship with some of these god who can protect them or punish them.
 - e. Man is one with the ultimate reality. Therefore man is spiritual, eternal and impersonal. The idea that man is an individual is an illusion.
3. Truth is:
- a. Truth is the experience of unity with the “unity” of the universe. Truth is outside of any rational description. The rational thought conceived in the Western world cannot show us this reality.
 - b. Truth is a meaningful mental construct for some individuals within the same cultural context. They are not applicable in other paradigms. Truth is relative to one’s culture.
 - c. Truth about God is known through revelation. The truth about the material world is understood through revelation and the five senses along with rational thinking.
 - d. The truth about the world is discovered by the figure of a shaman (witch) who receives visions that communicate the will of the demons.
4. Values:
- a. Because the ultimate reality is impersonal there is no real difference between good and evil. One can only speak of an “enlightened” behavior o one that is not enlightened.

- b. The values are part of the social paradigm. Tolerance, freedom from oppression and rejection of holding onto an absolute truth are the only universal values.
- c. Moral values are a type of taboo that can irritate or provoke anger in the bad spirits as well as in the good ones.
- d. Moral values are an objective expression of an absolutely moral being.
- e. There are no values nor morality. Moralities are the individual preferences or useful social behaviors. Even the social morals are subject to evolve and change.

Appendix C

Student Survey

Dear Student:

Thank you for agreeing to participate in this survey and for your valuable contribution. This is NOT an exam, only a survey of your opinions in how you describe the background in which you live, such as your environment, what you think about your education and how it affects your thinking and development. There are no correct or incorrect answers, only answers that best approximate your opinion concerning these aspects.

The questions always have the same options:

- a. Disagree
- b. Somewhat agree
- c. Strongly agree

Please choose the response that best represents your opinion in the most honest way possible.

Don't take too much time with the questions. You have 30 minutes to complete the survey.

Thank you.

1. Everything they teach me in the school is important. ____
2. Everything I learn in the school helps me grow as a person. ____
3. Everything I learn in the school is very interesting. ____
4. I am treated well by my teachers. ____
5. I am courteous and respectful with everyone. ____
6. I have been taught that God exists. ____
7. I have been taught that another life exists after death. ____

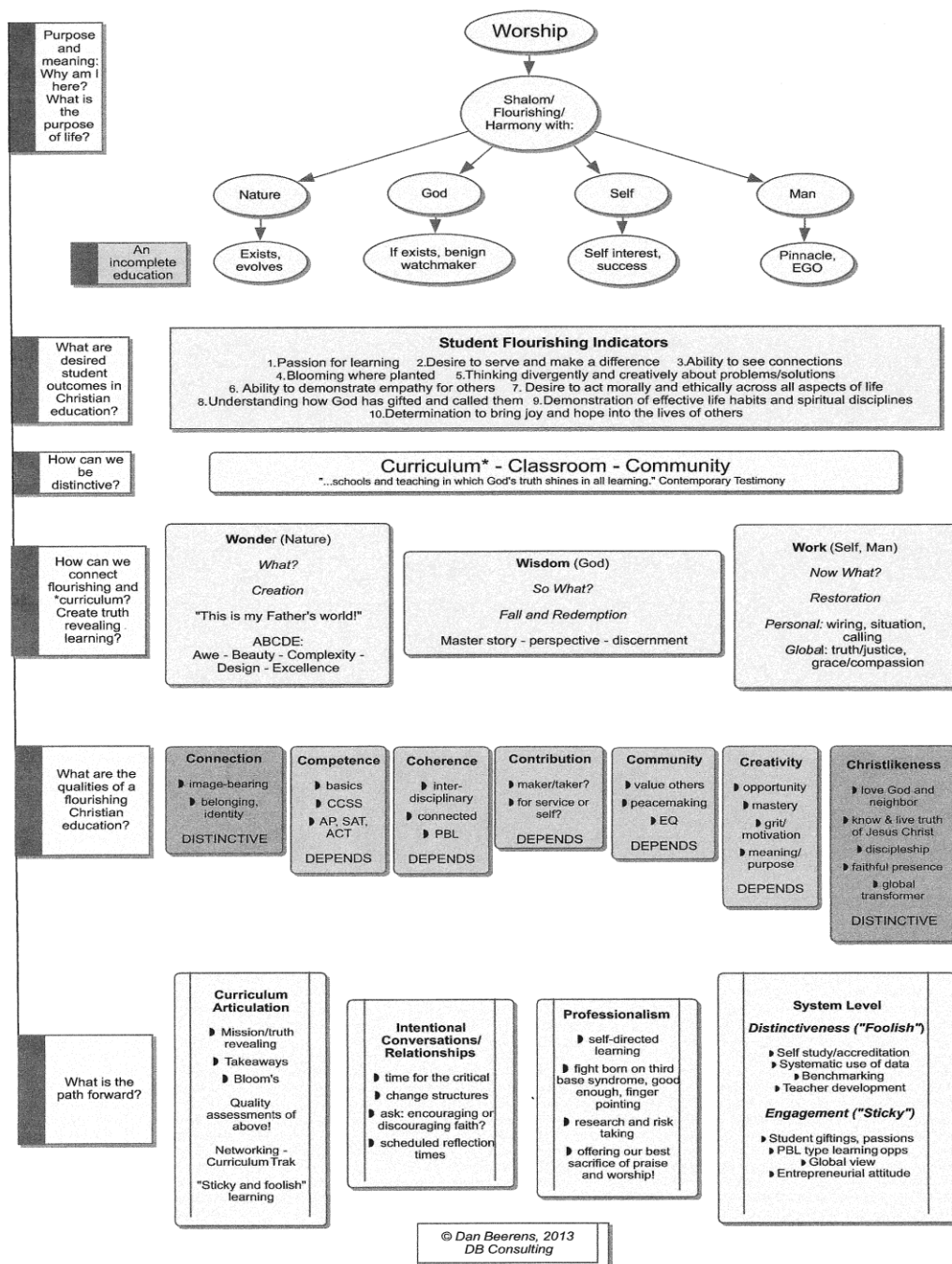
8. I receive a lot of help in my development through the television programs that I watch. ____
9. I receive a lot of support from my teachers. ____
10. I receive a lot of support from my family. ____
11. I receive a lot of support from my church. ____
12. I would like that what is taught in science classes include an explanation on the origins of the world. ____
13. All my subjects speak to me about God. ____
14. My parents, my school and my community think the same way about things. ____
15. My parents and my teachers think the same way. ____
16. My parents value my education. ____
17. I have been taught that there is an intelligent design in this world by a divine being. ____
18. My parents participate in all the activities of the community. ____
19. My parents appreciate the way my teachers are teaching me. ____
20. My teachers live what they teach. ____
21. My teachers teach me that a God exists. ____
22. My grandparents and my uncles and aunts teach me good values that help me. ____
23. My father teaches me to be honest because he believes in God. ____
24. My mother instills in me the same attitudes, ideas and values as my teachers. ____
25. I have been taught that the physical laws that maintain all things in their order are put in their place by God. ____

26. My education at school makes me a person that is helpful to society. ____
27. My community promotes values that make me a better person. ____
28. My community is important to me. ____
29. I feel important and special (valued). ____
30. I like living in my community. ____
31. I have been taught that it is important to be good in school. ____
32. The police in my community always help the people. ____
33. What my parents teach me and what my teachers teach me are the same. ____
34. What is taught in school is what my parents' desire. ____
35. A nation that lives according the values of God will be a just nation. ____
36. What I learn in school makes me a more moral person. ____
37. I limit the time I spend in front of the television. ____
38. The things I learn in school make me a better person. ____
39. School is interesting because it makes a lot of sense to me. ____
40. Science and religion are compatible. ____
41. This world someday will come to an end. ____
42. It is very important to get an education for my future. ____
43. It is important to believe in God. ____
44. It is easy and interesting everything I learn in school. ____
45. I understand very well how they teach me in school. ____
46. In my community they teach respect to older people. ____
47. In school I learn that history has a beginning and an end. ____
48. In school I learn that the world exists because a divine being created it. ____

49. The world was created by God. ____
50. The world was created with a marvelous purpose. ____
51. When school is over I want to serve my community. ____
52. When I grow up I want to be like one of my teachers. ____
53. I believe that humans are different from the other animals. ____
54. I believe God has much to do with the lives of people. ____
55. I was taught that Jesus is the one that maintains the molecules in place and the planets in their position. ____

Appendix D

Beerens Student Flourishing Indicators (used by permission)



Appendix E

ACECEN Parameters

Parameters for Student Successful Worldview Development, ACECEN

(Used by permission and translated from Spanish into English)

MEASURABLE AREAS INDICATING THAT THE APPLICATION OF BIBLICAL WORLDVIEW IS BEING EFFECTIVE IN THE CHRISTIAN SCHOOLS SERVED BY ACECEN (Association of Christian Schools of Nicaragua)

Leading students to Christ is one of the key ways to achieve the goal for a meaningful change in the academic process. We have been working on this objective through the curriculum that contains the following seven elements:

Focus: The student is treated as a whole person created as God's image bearer, in His likeness.

Overarching theme: The unchanging eternal values of God's kingdom and love which according to the Scriptures is the integrating value for all subjects.

Globalizing foundation: The application of the biblical worldview for the current global context having as its foundation the biblical principles that model indicators for success.

Methodology: It is active and interactive allowing the development of strategies that lead the students to participate with interest at all times for meaningful learning, the principle of: "I learn," "I practice," "I apply."

Assessment: The qualitative scope determines the quantitative scope through evaluation tools with indicators for integral improvement in process, surveys and student records, with specialized education where needed.

Key tool: Mentoring and supervision of properly trained teachers for the pedagogical, social and spiritual areas.

Tools: Materials created by ACECEN and by teachers used as guides to writing curriculum, manuals or digests accumulated from teachers experience from workshops, quality circles and class participation.

Another tool used is the Learning Resources Center whether they are located in the classroom or at a centralized office.

The use of the Bible is the foundational tool and the application of the text adapted to the context and the process of teaching and learning.

IMPORTANT ACHIEVEMENTS IN THE PROCESS

- Students who once had undesirable conduct prior to the application of biblical worldview turn into leaders within the school community.
- Students who were transferred from other schools with secular worldview with deficient academic standing, come to know Christ through the various subjects, turn from negative behavior and attitudes of indifference that once were linked to poor academic performance and have been able to complete the academic year with high markings.
- Students who before were considered brilliant students with high academic performance become even more excellent students after coming to Christ, developing a spirit of service for the community.

- Students with learning difficulties through the process of integrating the Scriptures in the various subjects, endeavor to overcome their limitations. While their learning is slower and more concrete, they achieve greater performance overall.
- Teachers and students who were once out of fellowship with God become involved in their local churches and improve their personal relationships within the community.

(Used by permission and translated from Spanish into English)

*ASPECTOS MEDIBLES QUE INDICAN QUE LA APLICACIÓN DE COSMOVISIÓN BÍBLICA
ESTA SIENDO DE ÉXITO EN LAS ESCUELAS CRISTIANAS ATENDIDAS POR ACECEN*

La forma de llevar el conocimiento de Cristo a los estudiantes, es una de las claves para lograr el propósito de cambio significativo en la comunidad escolar. Lo hemos venido trabajando a través del currículo de estudio que presenta los siguientes siete elementos:

1. **Enfoque:** El estudiante tratado integralmente como una persona hecha a la imagen y semejanza de Dios.
2. **Eje Transversal:** Los valores inmutables y eternos del reino de Dios, y el amor según la Biblia, como valor integrador de todas las disciplinas pedagógicas.

3. **Base Globalizadora:** Aplicación de la cosmovisión bíblica en medio del contexto global actual. Y que toma como base principios bíblicos que modelen los indicadores de logro.
4. **Metodología:** Activa y participativa, que permita el desarrollo de estrategias que conduzcan al estudiante a participar con interés todo el tiempo, para un aprendizaje significativo. En este caso APA (Aprendo, Practico y Aplico.)
5. **Evaluación:** El alcance cualitativo determina al alcance cuantitativo mediante formatos de evaluación con indicadores de superación integral en proceso, encuestas e historial del estudiante. En casos específicos en atención personalizada.
6. **Instrumento clave:** La mentoría y monitoreo al docente capacitado debidamente en el área pedagógica, social y espiritual.
7. **Herramientas:** Uso de material elaborado por ACECEN y por los docentes como pautas para iniciarnos en elaboración de currículo, manuales u compendios surgidos de la experiencia docente en talleres, círculos de calidad y acompañamiento a pie de aula. Otra herramienta es el uso de CRA, Centros de Recursos de Aprendizaje, ya sea ubicados por aula o centralizados en la institución.

El uso de la Biblia es la herramienta fundamental y el aplico del texto adaptado al contexto, en el proceso de enseñanza aprendizaje.

LOGROS SIGNIFICATIVOS EN PROCESO.

- Estudiantes de conducta deplorable que durante el proceso de aplico de cosmovisión bíblica llegan a convertirse en líderes dentro de la comunidad escolar.

- Estudiantes trasladados de colegios de formación secular por ser considerados deficientes en su rendimiento académico, al venir instruyéndose en el conocimiento de Cristo, a través de las diversa materias, superan conducta y actitudes de indiferencia e indisciplina que le ligaban a un bajo rendimiento académico y han logrado cursar el grado con notas consideradas en los rangos de normal alto.
- Estudiantes que antes de conocer de cosmovisión bíblica han sido considerados brillantes y de un alto rendimiento académico, en su proceso de conocimiento de Dios, alcanzan mayor excelencia, desarrollando un espíritu de servicio a la comunidad.
- Estudiantes con problemas de aprendizaje, en el proceso de ser instruidos integrando la Palabra a las diversas materias de estudio, se esfuerzan por superar sus limitaciones y aunque su aprendizaje es más lento y concreto, logran alcanzar mejor rendimiento en el aspecto integral.
- Docentes y estudiantes fuera de la comunión con Dios, integrados a sus comunidades eclesiales y mejorando sus relaciones interpersonales en la comunidad.

APPENDIX F**Student Survey Question Groupings****Student Survey Questions Grouped by Beerens Student Flourishing Indicators****a) Passion for learning (Curriculum related)**

1. Everything they teach me in the school is important.
3. Everything I learn in the school is very interesting.
39. Science and religion are compatible.
44. I understand very well how they teach me in school.

b) Desire to serve and make a difference

26. My community promotes values that make me a better person.*
35. A nation that lives according the values of God will be a just nation.*
42. It is very important to get an education for my future.
51. When school is over I want to serve my community.*
52. When I grow up I want to be like one of my teachers.*

c) Ability to see connections (Curriculum related)

1. Everything they teach me in the school is important.
2. Everything I learn in the school helps me grow as a person.
3. Everything I learn in the school is very interesting.
12. I would like that what is taught in science classes include an explanation on the origins of the world.
13. All my subjects speak to me about God.
17. I have been taught that there is an intelligent design in this world by a divine being.
25. My education at school makes me a person that is helpful to society.*
26. My community promotes values that make me a better person.

43. It is easy and interesting everything I learn in school.

45. I understand very well how they teach me in school.

d) Blooming where planted

30. I have been taught that it is important to be good in school.

51. When school is over I want to serve my community.*

52. When I grow up I want to be like one of my teachers.

e) Demonstrate empathy and values (as attitudes acquired by nurturing adults and role models for values)

4. I am treated well by my teachers.

5. I am courteous and respectful with everyone.

9. I receive a lot of support from my teachers.

11. I receive a lot of support from my church.

20. My teachers live what they teach.

21. My teachers teach me that a God exists.

22. My grandparents and my uncles and aunts teach me good values that help me.

23. My mother instills in me the same attitudes, ideas and values as my teachers.

24. I have been taught that the physical laws that maintain all things in their order are put in their place by God.

27. My community is important to me.*

28. I feel important and special (valued).

32. What my parents teach me and what my teachers teach me are the same.

46. In my community they teach respect to older people.*

51. When school is over I want to serve my community.*

52. When I grow up I want to be like one of my teachers.*

f) Desire to act morally and ethically across all aspects of life

- 5. I am courteous and respectful with everyone.
- 36. What I learn in school makes me a more moral person.*
- 46. In my community they teach respect to older people.*

g) Understanding how God has gifted them and called them (Curriculum related)

- 2. Everything I learn in the school helps me grow as a person.
- 4. I am treated well by my teachers.
- 6. I have been taught that God exists.
- 9. I receive a lot of support from my teachers.
- 10. I receive a lot of support from my family.
- 11. I receive a lot of support from my church.
- 17. I have been taught that there is an intelligent design in this world by a divine being.
- 26. My community promotes values that make me a better person.*
- 29. I like living in my community.*
- 38. School is interesting because it makes a lot of sense to me.
- 42. It is important to believe in God.
- 45. I understand very well how they teach me in school.
- 51. When school is over I want to serve my community.
- 52. When I grow up I want to be like one of my teachers.
- 53. I believe that humans are different from the other animals.
- 54. I believe God has much to do with the lives of people

h) Demonstration of effective lifelong habits (Curriculum related)

- 8. I receive a lot of help in my development through the television programs that I watch.
- 21. My teachers teach me that a God exists. (Spiritual formation habits)
- 31. I have been taught that it is important to be good in school.

- 37. I limit the time I spend in front of the television.
- 38. The things I learn in school make me a better person.
- 43. It is important to believe in God. (Spiritual formation habits)
- 44. I understand very well how they teach me in school.

i) Determination to bring joy and hope to others

- 51. When school is over I want to serve my community.
- 52. When I grow up I want to be like one of my teachers.

Observation: * Questions related to nurturing of attitudes for becoming agents of transformation for shalom (Wolterstorff & Joldersma, 2004)

Additional groupings: related with nurturing input for student moral formation towards social transformation (not included in the Beerens Categories)

a) Coherence and unity perceived between the school culture and community

- 9. I receive a lot of support from my teachers.
- 10. I receive a lot of support from my family.
- 11. I receive a lot of support from my church.
- 14. My parents, my school and my community think the same way about things.
- 15. My parents and my teachers think the same way.
- 16. My parents value my education.
- 18. My parents participate in all the activities of the community.
- 19. My parents appreciate the way my teachers are teaching me.
- 22. My grandparents and my uncles and aunts teach me good values that help me.
- 23. My mother instills in me the same attitudes, ideas and values as my teachers.
- 27. My community is important to me.

- 30. I have been taught that it is important to be good in school.
- 32. What my parents teach me and what my teachers teach me are the same.
- 33. What is taught in school is what my parents' desire.
- 46. In school I learn that history has a beginning and an end.

b) Worldview: Dualistic vs biblical specific questions

- 12. I would like that what is taught in science classes include an explanation on the origins of the world.
- 13. All my subjects speak to me about God.
- 17. I have been taught that there is an intelligent design in this world by a divine being.
- 25. My education at school makes me a person that is helpful to society.
- 40. This world someday will come to an end.
- 47. In school I learn that history has a beginning and an end.
- 55. I was taught that Jesus is the one that maintains the molecules in place and the planets in their position.

c) Values acquisition by nurturing and modeling received from surrounding adults

(teachers, parents, community)

- 5. I am courteous and respectful with everyone.
- 20. My teachers live what they teach.
- 21. My teachers teach me that a God exists.
- 23. My mother instills in me the same attitudes, ideas and values as my teachers.
- 24. I have been taught that the physical laws that maintain all things in their order are put in their place by God.
- 26. My community promotes values that make me a better person.
- 27. My community is important to me.
- 28. I feel important and special (valued).

- 30. I have been taught that it is important to be good in school.
- 32. What my parents teach me and what my teachers teach me are the same.
- 33. What is taught in school is what my parents' desire.
- 37. The things I learn in school make me a better person.
- 42. It is important to believe in God.
- 51. When school is over I want to serve my community.
- 54. I believe God has much to do with the lives of people.

d) Significant adult input affirming sense of self as image bearer of God

- 4. I am treated well by my teachers.
- 8. I receive a lot of help in my development through the television programs that I watch.
- 9. I receive a lot of support from my teachers.
- 10. I receive a lot of support from my family.
- 29. I like living in my community.
- 51. When school is over I want to serve my community.
- 52. When I grow up I want to be like one of my teachers.
- 53. I believe that humans are different from the other animals.

e) Areas of differences or low affirmative scores

- 2. Everything I learn in the school helps me grow as a person.
- 4. I am treated well by my teachers.
- 5. I am courteous and respectful with everyone.
- 7. I have been taught that another life exists after death.
- 8. I receive a lot of help in my development through the television programs that I watch.
- 10. I receive a lot of support from my family.
- 11. I receive a lot of support from my church.
- 13. All my subjects speak to me about God.

14. My parents, my school and my community think the same way about things.
15. My parents and my teachers think the same way.
16. My parents value my education.
17. I have been taught that there is an intelligent design in this world by a divine being.
18. My parents participate in all the activities of the community.
19. My parents appreciate the way my teachers are teaching me.
20. My teachers live what they teach.
24. I have been taught that the physical laws that maintain all things in their order are put in their place by God.
26. My community promotes values that make me a better person.
27. My community is important to me.
29. I like living in my community.
30. I have been taught that it is important to be good in school.
32. What my parents teach me and what my teachers teach me are the same.
33. What is taught in school is what my parents' desire.
36. I limit the time I spend in front of the television.
40. This world someday will come to an end.
41. It is very important to get an education for my future.
46. In my community they teach respect to older people.
47. In school I learn that history has a beginning and an end.
52. When I grow up I want to be like one of my teachers.
53. I believe that humans are different from the other animals.

f) Lowest score area: Parents and teachers agree

5. I am courteous and respectful with everyone.
8. I receive a lot of help in my development through the television programs that I watch.

- 13. All my subjects speak to me about God.
- 14. My parents, my school and my community think the same way about things.
- 18. My parents participate in all the activities of the community.
- 20. My teachers live what they teach.
- 24. I have been taught that the physical laws that maintain all things in their order are put in their place by God.
- 33. What is taught in school is what my pare