

# Understanding *Laudato Si'*'s View of Ecological Education and Well-Being from an Indigenous Relational Perspective

Inna Reddy Edara, SVD\*

Graduate Institute of Educational Leadership & Development  
Fu Jen Catholic University, Taiwan

**Abstract:** Pope Francis, in the encyclical *Laudato Si'*, speaks of an “integral ecology” that combines environmental, economic, social, cultural and spiritual ecologies in caring for our common home. Pope Francis also sees the important role of environmental education in increasing awareness and creating a “culture of care” for our common home and promoting quality of life or well-being. While promoting environmental education, many researchers argue in favor of the effectiveness of the indigenous ecological knowledge and practices to protect and maintain natural environments. Indigenous ecological knowledge systems are based on a process of an intimate relational perspective and a sort of symbiotic relationships between people and the ecological system. These assumptions of indigenous relational perspective and symbiotic relationships demand a holistic or global consciousness, which involves that people recognize the importance of other people and of other species to the global community’s integrated and comprehensive well-being. Based on the premise that indigenous knowledge and ecological systems should be recognized as a foreground in ecology; as an antidote to globalization in sustaining the environment, and as an invaluable tool in providing better quality of life, this paper proposes an integral ecological education model of an “indigenous relational perspective of ecological education and comprehensive well-being.” In this integral ecological education model, specific emphasis is placed on interconnectedness between indigenous aspects of environmental knowledge, kincentric ecology, ecological conversion and harmony, and ecological spirituality in creating a ‘culture of care’ for our common home and in promoting our common good, quality of life, and

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\* Inna Reddy Edara can be contacted at 065049@mail.fju.edu.tw.

well-being. In the light of *Laudato Si'* and the proposed model, some concrete examples implemented at Fu Jen Catholic University in Taiwan are elucidated.

**Keywords:** *integral ecology; indigenous knowledge; relational perspective; ecological conversion; kincentric ecology; ecological spirituality; quality of life; well-being*

## Introduction

During the recent decades, a whole range of discussions and mechanisms have evolved to address the loss of nature, environmental degradation, and ecological corrosion. Along an emphasis on these issues, there is also an increasing focus on the role of environmental communication, ecological education and learning in finding an adequate response to what is nowadays seen as a global challenge in dealing with environment degradation and ecological corrosion. Historically speaking, one could say that there has been an evolution from nature conservation education to environmental education to the recent idea of education for sustainable development. But, Pope Francis, in his encyclical *Laudato Si'*, goes a step ahead and speaks of an education in “integral ecology” that combines environmental, economic, social, cultural and spiritual ecologies in caring for our common home. Pope Francis also sees the important role of environmental education in increasing awareness and changing habits, and in creating a culture of care for our common home.<sup>1</sup> If we want to tread along this line of thought, valuing indigenous cultures and traditions in the care for our common home cannot be ignored. Responding to the message of Pope Francis and as the whole world continuously searches for a more satisfying and sustainable way to live on this planet, the depth of indigenous knowledge rooted in the long inhabitation of a particular place and environment offers lessons that can benefit everyone, from a common person to student to educator to scientist.

Many researchers argue in favor of the effectiveness of the traditional or indigenous ecological knowledge and practices to protect and maintain natural environments.<sup>2</sup> The research also cites various examples of how indigenous people live in harmony with their natural environment, such as rural communities in Hawaii,<sup>3</sup> the Kayapo Indians of Middle Xingu Valley in Brazil,<sup>4</sup> and the indigenous ethnic

<sup>1</sup> Pope Francis, *Laudato Si': On care for our common home* (Vatican City, 2015).

<sup>2</sup> Fikret Berkes, “Religious traditions and biodiversity,” *Encyclopedia of Biodiversity*, 5 (2001): 109-120.

<sup>3</sup> Deborah McGregor, “Hawaiian subsistence, culture and spirituality, and natural biodiversity” in *Cultural and spiritual values of biodiversity* (London: UNEP and Intermediate Technology Publications, 1999), 114-116.

<sup>4</sup> Darrell Posey, “Cultural and spiritual values of biodiversity. A complementary contribution to

group of Dai in southwest China.<sup>5</sup> In other words, indigenous people throughout the world have tried to sustain and maintain their unique worldviews and associated knowledge systems through a process of an intimate relational perspective and a sort of symbiotic relationships between them and the ecological system,<sup>6</sup> which I think, can be conceptualized as an “indigenous relational perspective of ecological education.”

### **Indigenous Relational Perspective of Ecological Knowledge**

Indigenous understanding of ecological knowledge systems are inseparable from their views of symbiotic relationships between them and all of the aspects of ecology. There is a mutual and two-way link between relationship and knowledge, to an extent that one cannot comprehend one aspect without understanding the other. Here, I will give a brief description of these two concepts.

#### *Indigenous Relational Perspective*

Indigenous relational perspective proposes that everything in life is interdependent and connected. While all living beings may be conceived as independent in particular contexts, in reality they are tied into many overlapping and interlocking subsystems, such as families, religions, cultures, economies and ecologies. This innate relational tendency in all organisms leads them to co-exist in a state of belonging, helping them to thrive in the midst of mutually beneficial and supportive relationships. This interconnectedness is also essential for the growth and development of all life forms and for each organism to achieve its unique identity. These assumptions of relational perspective and symbiotic relationships demand a holistic or global consciousness, which involves that people recognize the importance of other people and of other species to the global community's integrated well-being.<sup>7</sup>

Therefore, indigenous relational perspective challenges us, personally and professionally, to participate in the individual and communal struggle to live in the knowledge and awareness of our essential connectedness to the ecological system, which may in turn lead us to a moral responsibility to live harmoniously within the

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the global biodiversity assessment” in *Cultural and spiritual values of biodiversity* (London: UNEP and Intermediate Technology Publications, 1999), 1-19.

<sup>5</sup> Corvallis Shengji, “The holy hills of the Dai” in *Cultural and spiritual values of biodiversity* (London: UNEP and Intermediate Technology Publications, 1999), 381.

<sup>6</sup> Ray Barnhardt and Angayuqaq O. Kawagely, “Indigenous knowledge systems and Alaska native ways of knowing,” *Anthropology & Education Quarterly*, 36, no. 1 (2005): 8-23.

<sup>7</sup> John Coates, Mel Gray, and Tiani Hetheerington, “An ecospiritual perspective: Finally, a place for indigenous approaches,” *The British Journal of Social Work*, 36, no. 3 (2006): 381-399.

biosphere.<sup>8</sup> It also requires that we have a sense of deep connection to all beings, a compassionate awareness that our individual and collective actions are intimately linked, and an understanding that they can be constructively linked to the well-being of others. A basic expression of this connection and relation to other beings can be recognized through concrete actions in promoting that other people and other species not only have a right to live, but also have the right to a reasonable quality of life.<sup>9</sup>

Thus, Coates and colleagues<sup>10</sup> suggest that in integrating the indigenous ecological knowledge into the current educational models, there is a primary need to be able to connect knowledge and skills with the indigenous relational perspective, in which health and wellness constitute a balance of four major factors: the body, the mind, the context and the spirit. In the relational perspective, “body” includes genetics, nutrition, chemistry, sleep and rest, age and health condition; “mind” includes intellect, emotion, memory, judgment and experience; “context” includes family, culture, work, community history and environmental factors, including climate and weather, and “spirit” includes spiritual practices and teachings, dreams, symbols, stories, gifts, intuition, grace, protecting and negative forces.

Poonwassie and Charter<sup>11</sup> describe several indigenous practices symbolic of cyclical connectedness and interpretations of life; symbolic circles such as The Medicine Wheel, The Wheel of Life, The Circle of Life and The Pimatisiwin Circle. These circles contain four elements — physical, mental, emotional and spiritual; four directions — North, East, South and West, and other aspects of relatedness, interdependence and harmony. Coates et al.<sup>12</sup> say that the spiritual presence at each of these directions gives a specific type of wisdom, knowledge and relationship to the world. These interpretations offer only a glimpse of the types of forces that need to be in balance for an indigenous person to experience a sense of well-being. But, all over the world, the overarching principles of indigenous cultures, such as wholeness, harmony, balance and a close relationship of the physical, economic, cultural and spiritual, are consistent with the foundational beliefs of relationality and interdependence,<sup>13</sup> which forms a basis for indigenous knowledge and education systems.

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<sup>8</sup> Raoul Berger and James G. Kelly, “Social work Burgess in the ecological crisis,” *Social Work*, 38, no. 5 (1993): 521-526.

<sup>9</sup> Coates et al., *An ecospiritual perspective*, 381-399.

<sup>10</sup> Ibid.

<sup>11</sup> Anne Poonwassie and Ann Charter, “An aboriginal worldview of helping empowering approaches,” *Canadian Journal of Counselling*, 35, no. 1 (2001): 63-73.

<sup>12</sup> Coates et al., *An ecospiritual perspective*, 381-399.

<sup>13</sup> Four Worlds Development Project, *Twelve principles of Indian philosophy* (Lethbridge, Alberta, University of Lethbridge, 1982).

### *Indigenous Ecological Knowledge and Education*

Castellano<sup>14</sup> identified three specific sources for knowledge acquisition: *traditional knowledge*, which is passed on from generation to generation; *empirical* or *scientific knowledge*, which is gained from observation; and *revealed knowledge*, which is acquired through spiritual origins and usually recognized as a gift. The traditional and revealed sources of knowledge find a suitable place in the indigenous knowledge systems. Indigenous people engage in a form of ecological science and education by involving in the annual cycle of subsistence activities, knowing a great deal about the flora and fauna, and classifying systems and versions of meteorology, physics, chemistry, earth science, astronomy, botany, pharmacology, psychology, and the sacred or spirituality.<sup>15</sup> Even while undergoing major social upheavals as a result of transformative forces beyond their control, indigenous communities saw to it that their core values, beliefs, and practices associated with their worldviews have survived and be recognized as being just as valid for today's people as they were for generations in the past.<sup>16</sup>

Grounded in the basics of human nature, the foundations of indigenous education include the spiritual, environmental, mythic, visionary, artistic, affective, and communal or cultural elements.<sup>17</sup> Cajete<sup>18</sup> says that these elements formed the foundations in the indigenous person's life for discovering one's true face (character, potential, identity), one's heart (soul, creative self, true passion), and one's foundation (true work, vocation), all of which lead to the expression of a complete life. In fact, the indigenous elders say that they speak to spiritual connections, which serve as the sources of finding an ecological vision of indigenous ecological education and as one's guardian spirits and gifts in the context of a life journey.<sup>19</sup>

Further, it should be acknowledged that the indigenous method of education and acquisition of knowledge is of holistic worldview, which is ecologically oriented,<sup>20</sup> experientially grounded,<sup>21</sup> contextual,<sup>22</sup> and place-based.<sup>23</sup> The current typical

<sup>14</sup> Brant Castellano, "Updating aboriginal traditions of knowledge," in *Indigenous knowledges in global contexts: Multiple readings of our world* (Toronto, ON: University of Toronto Press, 2000): 21-36.

<sup>15</sup> Paul W. Burgess, *Traditional Knowledge: A Report Prepared for the Arctic Council Indigenous Peoples' Secretariat* (Copenhagen: Indigenous Peoples' Secretariat Arctic Council, 1999).

<sup>16</sup> Barnhardt and Kawagley, *Indigenous knowledge systems and Alaska native ways of knowing*, 8-23.

<sup>17</sup> Gregory Cajete, *Look to the mountain: An ecology of indigenous education* (Durango, CO: Kavaki Press, 1994).

<sup>18</sup> Ibid.

<sup>19</sup> Marie Battiste, *Indigenous knowledge: Foundations for First Nations* (2005).

<sup>20</sup> Berkes, *Religious traditions and biodiversity*, 109-120.

<sup>21</sup> Cajete, *Look to the mountain: An ecology of indigenous education*.

<sup>22</sup> David Gruenewald, "The best of both worlds: A critical pedagogy of place," *Educational Researcher*, 32, no. 4 (2003): 3-12.

<sup>23</sup> Angayuqaq Kawagley and Ray Barnhardt, *Education indigenous to place: Western science meets native reality* (1988).

approaches to education which tend to focus on compartmentalized knowledge with little regard for how academic subjects relate to one another or to the surrounding universe have much to learn from the indigenous ecological education.<sup>24</sup> In addition, current systems of education should recognize the traditional knowledge as a process,<sup>25</sup> rather than as content, and integrate it into the existing educational methods by reframing the old debate on a science *versus* traditional knowledge into a science *and* traditional knowledge in mutual dialogue and partnership.<sup>26</sup> Cajete, thus, describes an ecology of indigenous education as a translation of foundational indigenous educational principles into a contemporary framework of thought. He advocates for a contemporary culturally based educational process founded upon traditional indigenous values, orientation, and principles, while simultaneously using the most appropriate concepts, technologies, and content of modern education.<sup>27</sup>

### Indigenous Relational Perspective of Ecological Education and Well-Being

Based on the aforementioned background, I propose the model of “Indigenous Relational Perspective of Ecological Education,” wherein there is an interconnectedness and synergy between environmental knowledge, ecological conversion and harmony, eco-spirituality, and kincentric ecology, through which there can be uplifting of the overall quality of life, well-being, and common good. This model is given in Figure 1 and brief explanation of each aspect of the model is given in the following paragraphs.

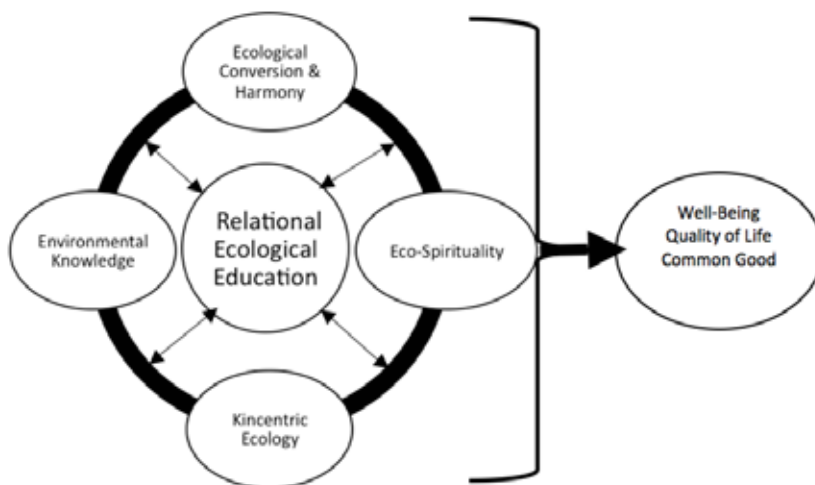


Figure 1: Theoretical Model of Indigenous Relational Perspective of Ecological Education and Well-Being

<sup>24</sup> Barnhardt and Kawagley, *Indigenous knowledge systems and Alaska native ways of knowing*, 8-23.

<sup>25</sup> Berkes, *Religious traditions and biodiversity*, 109-120.

<sup>26</sup> Ibid.

<sup>27</sup> Cajete, *Look to the mountain: An ecology of indigenous education*.

### *Environmental Knowledge*

The foundational element of indigenous ecological education is the place or environment and the ecological life. McGregor suggests that it is important for people to understand that in the indigenous worldview, knowledge comes from Creation itself and that education by nature is an environmental knowledge, which itself is a way of living within the context of flux, paradox, and reconciling opposite forces. In other words, McGregor says that indigenous knowledge is something one does, rather than simply something one knows.<sup>28</sup>

In view of the importance of the environment or place in the indigenous knowledge and education, Gruenewald proposes a critical pedagogy of place, which may challenge all educators to reflect on the relationship between the kind of education they pursue or engage in and the kind of places we inhabit and leave behind for future generations. A critical pedagogy of place is a combination of “critical pedagogy” and “place-based education.” On the one hand, critical pedagogy often distances itself from the fact that human culture has been, is, and always will be nested in ecological systems.<sup>29</sup> Indigenous views of the world and approaches to education have been jeopardized with the spread of Western social structures and institutionalized forms of cultural transmission.<sup>30</sup> On the other hand, place-based approaches, in their focus on local and ecological experience, are sometimes hesitant to link ecological themes with critical pedagogical themes such as urbanization and global capitalism. In other words, if place-based education emphasizes ecological and rural contexts, critical pedagogy emphasizes social and urban contexts at the negligence of the ecological and rural scene.

Given these polarized approaches, Gruenewald<sup>31</sup> says that a critical pedagogy of place is a much needed framework for educational theory, research, policy, and practice, so that the education might have some direct bearing on the well-being of the social and ecological places that people actually inhabit. Therefore, necessary efforts must be made to reconnect education to a sense of place through direct experience in the natural environment, wherein the laboratory for teaching and learning are embedded in the place where one lives.

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<sup>28</sup> McGregor, *Hawaiian subsistence, culture and spirituality*, 114-116.

<sup>29</sup> Gruenewald, *The best of both worlds*, 3-12.

<sup>30</sup> Kawagley, *Education indigenous to place: Western science meets native reality*.

<sup>31</sup> Gruenewald, *The best of both worlds*, 3-12.

### *Kincentric Ecological Culture*

The recognition of close links between the lifestyles of indigenous people and biodiversity is seen as crucial not only for the survival of biological diversity but sometimes also for the protection of cultural diversity.<sup>32</sup> Pope Francis says that the roots of the ecological problems lie in technocracy and in an excessive self-centeredness of human beings. Moreover, an increasing ethical and cultural decline has accompanied the deterioration of the natural environment. Pope Francis says that in reality, we are not faced with two separate crises, one environmental and the other social or cultural, but rather with one complex crisis, which demands an integrated approach to the solution. Pope Francis further says that what is needed is an integral ecology that clearly respects its human, inter-relational, and social dimensions, which are inextricably linked to the environmental awareness and ecological education.<sup>33</sup>

The concept of culture, cultural integration and relevance is a powerful tool to use in education.<sup>34</sup> A basic premise in both ecological anthropology<sup>35</sup> and biocultural diversity<sup>36</sup> is that the relationship between humans and their environments is mediated by culture. Therefore, Saul<sup>37</sup> called for the integration of cultural aspects in environmental education that can change our culture and address the serious environmental problems we all face. Nakata<sup>38</sup> talks about cultural interface between two knowledge systems, Indigenous and Western. In the space between Indigenous and Western knowledge systems, Nakata says that there are multiple and interconnected discourses, sociocultural practices and knowledge technologies which condition how we all view the world, know and understand our changing realities every day, and how and what knowledge we operationalize in our daily lives.

In indigenous cultures throughout the world, there exists a close bond between the people and the environment. Salmon calls this bond a kind of “kincentric ecology” which refers to kincentricity with the natural world.<sup>39</sup> Pope

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<sup>32</sup> Michelle Cocks, “Moving beyond the realm of indigenous and local people,” *Human Ecology*, 34, no. 2 (2006): 185-200.

<sup>33</sup> Francis, *Laudato Si’: On care for our common home*.

<sup>34</sup> Benjamin Feinstein, “Learning and transformation in the context of Hawaiian traditional ecological knowledge,” *Adult Education Quarterly*, 54, no. 2 (2004).

<sup>35</sup> Sarah Laird, “Forests, culture and conservation,” in *Cultural and spiritual values of biodiversity* (London, U.K.: UNEP and Intermediate Technology Publications, 1999).

<sup>36</sup> Fikret Berkes, John Colding, and Carl Folk, “Rediscovery of traditional ecological knowledge as adaptive management,” *Ecological Applications*, 10, no. 5 (2000): 1251-1268.

<sup>37</sup> Darin Saul, “Expanding environmental education: Thinking critically, thinking culturally,” *The Journal of Environmental Education*, 31, no. 1 (1999): 5-8.

<sup>38</sup> Martin Nakata, “The cultural interface,” *The Australian Journal of Indigenous Education*, 36, (2007): 7-14.

<sup>39</sup> Enrique Salmon, “Kincentric ecology: Indigenous perceptions of the human-nature relationship,” *Ecological Applications*, 10, no. 5 (2000): 1327-1332.

Francis encyclical even better explains the concept of kincentric ecology. The encyclical *Laudato Si'* takes its name from invocation "Praise be to you, my Lord" of Saint Francis in his *Canticle of the Creatures*, reminding everyone that the earth, our common home "is like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us." Pope Francis says that the human meaning of ecology is the conviction that everything in the world is connected.<sup>40</sup> Salmon says that if humans fail to recognize their kin-role in the complexities of life in the nature, the life suffers and loses its sustainability.<sup>41</sup>

The indigenous philosophy of kincentric ecology is further validated by Raven Sinclair's<sup>42</sup> two key concepts of "all my relations" and "sacredness of life" that underlie the indigenous perspective. "All my relations" is a foundational belief in the indigenous cosmology which reminds that individuals are related in their immediate and extended family and community, which then extends to all animals and plants, and to both the animate and inanimate worlds. Moreover, this belief in the indigenous cosmology with relational perspective is an encouragement to accept the social and ecological responsibility for living a harmonious and moral life in the present, in honoring the past suffering, memory and spiritual well-being of the dead, and in taking care of the Earth for many generations to come. Thus, since each has equal status and is subject to the same universal power in the relational perspective, it leads one to a recognition of the interrelatedness and interconnectedness of all life forms. But unfortunately, this equal status and interconnectedness is broken by the human desire to subdue, control and misuse the natural resources, which in turn, summons humans for rediscovering a reconnection and harmony through change of heart and a process of reconciliation.<sup>43</sup>

### *Ecological Conversion and Harmony*

In introducing the concept of kincentricity<sup>44</sup> and elaborating on it, Salmon says that, to the indigenous people, humans are at an equal standing with the rest of the natural world, because they are kindred relations and they live interdependently and harmoniously with all forms of life. Their physical, social, cultural, spiritual, and mental health and well-being depends on the ability to live harmoniously and interdependently with the natural world. Therefore, according to the kincentricity, it is understood that a person who harms the natural world also harms oneself and the

<sup>40</sup> Francis, *Laudato si'*: *On care for our common home*.

<sup>41</sup> Salmon, *Kincentric ecology*, 1327-1332.

<sup>42</sup> Raven Sinclair, "Aboriginal social work education in Canada: Decolonizing pedagogy for the 7<sup>th</sup> generation," *First Peoples Child and Family Review*, 1, no. 1 (2004): 49-61.

<sup>43</sup> Francis, *Laudato si'*: *On care for our common home*.

<sup>44</sup> Salmon, *Kincentric ecology*, 1327-1332.

community. The direct positive correlation between harming the natural world and harming oneself is also echoed by Pope Francis,<sup>45</sup> who says that the earth, mistreated and abused, is lamenting, and groaning just like those of all the forsaken of the world. According to him, the Bible teaches that the harmony between the creator, humanity, and creation was disrupted by our presuming to take the place of God and refusing to acknowledge our creaturely limitations. Pope Francis, thus invites us to an “ecological conversion” in “changing direction” by taking on the responsibility of “caring for our common home.”

Pope Francis’s encyclical<sup>46</sup> indicates how a true ‘ecological debt’ exists in the world. Reflecting on the Gospel of creation, Pope Francis says that in the Bible, the God who liberates and saves is the same God who created the universe, and these two divine ways of acting are intimately and inseparably connected. He suggests that human life is grounded in three fundamental and closely intertwined relationships: with God, with our neighbor and with the earth itself. According to the message of the Bible, these three vital relationships have been broken, both outwardly and internally, because of excessive anthropocentrism, which leads to a rupture among three vital relationships and the ultimate result is sin.

Pope Francis,<sup>47</sup> thus, invites everyone to an ecological conversion through the change of motivation and process of education. The starting point in this conversion process is to aim for a new lifestyle, made up of simple daily gestures which break with the logic of violence, exploitation and selfishness. Harrop<sup>48</sup> says that the phrase “Living in harmony with nature” used at the Convention on Biological Diversity (CBD) held in Nagoya in 2010, sought to reconcile human use of natural resources with biodiversity preservation. Harrop wrote, “If we are to be ‘living in harmony with nature’ by 2050 we surely need a more robust portfolio of regulations. Without such evidence of commitment the phrase might be better deployed to headline a Disney film rather than representing the end game of an international hard law convention.”<sup>49</sup> (p. 128).

Therefore, if the goal of “living in harmony with nature” is to be achieved, immediate process of ecological conversion is mandatory. Pope Francis<sup>50</sup> says that ecological conversion becomes easier when started with a faith-based contemplative

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<sup>45</sup> Francis, *Laudato si’: On care for our common home*.

<sup>46</sup> Francis, *Laudato si’: On care for our common home*.

<sup>47</sup> Ibid.

<sup>48</sup> Stuart Harrop, “Living in harmony with nature? Outcomes of the 2010 Nagoya conference of the Convention on Biological Diversity,” *Journal of Environmental Law*, 23, no. 1 (2011): 117-128.

<sup>49</sup> Ibid, p. 128.

<sup>50</sup> Francis, *Laudato si’: On care for our common home*.

outlook that as believers, we do not look at the world from without but from within, conscious of the bonds with which God has linked us with all beings and the whole creation. Another tool to achieving the ecological conversion and harmony is the regular examination of conscience, a spiritual practice that the Church has always recommended to the believers to orient one's life in light of the relationship with the Lord. The practice of the examination of conscience should include a new dimension, in which one ought to reflect seriously on how one has lived in communion, not only with God, with others and with oneself, but also with all creatures and with nature.

Thus the heart of the Pope Francis' encyclical is an integral ecology as a new paradigm of justice; an ecology which respects our unique place as human beings in this world and our relationship to our surroundings, and which acknowledges that nature cannot be regarded as something separate from ourselves or as a mere setting in which we live. Our care for our common home and our goal for common good is achieved through integral ecology, in which ecological conversion and relational harmony is established or rather re-discovered.<sup>51</sup> But such a conversion doesn't take place if a person loses a sense of spirituality and sacredness that forms a key aspect of indigenous relational perspective of ecology.

### *Eco-Spirituality*

Groenfeldt says that the indigenous societies have much to teach us about the profound religious and philosophical relationship of humans and nature, as well as about the practical relationship of human societies with natural ecosystems.<sup>52</sup> Coates et al.,<sup>53</sup> advocate for an environmentally friendly and culturally relevant ecospiritual perspective that moves us to a much broader holistic understanding of our world and one more akin to that of indigenous societies and cultures. Coates and colleagues say that spirituality and ecology emphasize, respectively, a search for meaning and sustainability, further validating the ecospiritual perspective. Thus, the ecospiritual worldview is one that encompasses care and consideration not only for the well-being of all in the universe but also for the universe as a whole. Such an encompassing indigenous ecospiritual approaches, through their increased emphasis on spirituality and ecology, have been shown to provide meaningful innovative and educational insights in responding to the challenges facing the world, including the ecological crisis.

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<sup>51</sup> Ibid.

<sup>52</sup> David Groenfeldt, "Water development and spiritual values in Western and Indigenous societies," in *Water and indigenous peoples* (Paris: UNESCO, 2006), 108-117.

<sup>53</sup> Coates et al., *An ecospiritual perspective*, 381-399.

Sinclair<sup>54</sup> says that the indigenous perspective on “sacredness of life” is manifested in an array of behaviors integrated into daily life; practices such as sunrise ceremonies honoring the new day and simple prayers uttered during the day. Some researchers use the concept of biophilia to highlight how indigenous people are innately connected and attracted to the natural environment, creating a deep-spiritual connection.<sup>55</sup> The biophilia concept hypothesizes that associating with nature and the natural environment offers meaning and purpose to human life and results in improved health and wellbeing.<sup>56</sup> The concept of biophilia is strengthened by Groenfeldt’s interpretation that Western (developed) spiritual traditions identify less completely with nature, and externalize a deity that is seen as separate from nature. Even the more naturalistic themes that are found in Western religions mostly occupy minority positions within the Western society.<sup>57</sup>

For example, in Western cultural theory, water is an economic resource, which is not alive, has no consciousness, is inert and which can be fully defined in terms of its physical properties. In the indigenous cultural theory, water is not only an aspect of indigenous spirituality but a very major component of that spiritual world. Water, whether as a substance, or in the form of water bodies (rivers, lakes) and meteorological phenomena (rain, snow, fog, clouds), are seen through a spiritual lens, not an economic one.<sup>58</sup> Kingsley et al. describe that the Australian Indigenous people use *Land* and *Country* interchangeably and talk about it in the same way that they would talk about a person, such as being pulled toward the land, which gives them a sense of belonging, empowers their sense of identity, and promotes their health and well-being.<sup>59</sup> Groenfeldt thus says that such differences between the Western commercial views and the indigenous spiritual values about water or land suggest a great potential for including the concept of eco-spirituality in education.<sup>60</sup>

Pope Francis says that all the Catholic faithful should realize that their place within creation, and their responsibility towards nature and the Creator, are an essential part of their faith.<sup>61</sup> As in Coates et al.’s ecospiritual perspective,<sup>62</sup> Pope Francis indicates that everything is related; all human beings are united as brothers

<sup>54</sup> Sinclair, *Aboriginal social work education in Canada*, 49-61.

<sup>55</sup> Eleonora Gullone, “The biophilia hypothesis and life in the 21st century: Increasing mental health or increasing pathology?,” *Journal of Happiness Studies*, 1, no. 3 (2000): 293–321.

<sup>56</sup> Jonathan Kingsley, Mardie Townsend, Rebecca Phillips, and David Aldous, “If the land is healthy” it makes the people healthy: The relationship between caring for Country and health for the Yorta Nation, Boonwurrung and Bangerang tribes,” *Health & Place*, 15, no. 1 (2009): 291–299.

<sup>57</sup> Groenfeldt, *Water development and spiritual values*, 108-117.

<sup>58</sup> Ibid.

<sup>59</sup> Kingsley et al., *If the land is healthy*, 291-299.

<sup>60</sup> Groenfeldt, *Water development and spiritual values*, 108-117.

<sup>61</sup> Francis, *Laudato si: On care for our common home*.

<sup>62</sup> Coates et al., *An ecospiritual perspective*, 381-399.

and sisters, woven together by God's love for one another, which also unites them in fond affection with brother sun, sister moon, brother river and mother earth. Hence, Pope Francis proposes that the natural world is and must become integral to our sacramental and spiritual lives. Such an ecospiritual perspective not only helps to live in harmony with the nature, but also leads to achieve common good.<sup>63</sup> Therefore, in the proposed model of "Indigenous Relational Perspective of Ecological Education," if an inter-relationality, mutual connectedness and synergy between the indigenous cultural aspects of environmental knowledge, kincentric ecology, ecological conversion and harmony, and eco-spirituality is created and maintained, then there can be said to have an uplifting of the overall quality of life, well-being, and common good.

### *Quality of Life and Well-Being*

The themes of "common good" and "common home" in Pope Francis' encyclical<sup>64</sup> highlight the significance of the integral quality of life. He looks at how the environmental degradation has affected human society's quality of life. Quality of life in general can be described as the opportunity to experience the social, economic, cultural and environmental conditions that are conducive to promoting total well-being, comprising of physical, mental, psychological, sociocultural, and religious and spiritual aspects. This broader perspective on quality of life neither overemphasizes economic growth nor is it concerned only with human development. Rather, its concern is sustainable development, which is meant to provide a better balance and integration of social, environmental and economic goals and objectives to produce a high, equitable and enduring quality of life. Such a concern for the well-being of all in the context of interdependence leads to an understanding that individual well-being can only be maximized in the context of, and accompanied by, community well-being.<sup>65</sup>

Like in the general perspective on quality of life, the indigenous concept of quality of life and health is also holistic, involving physical, social, emotional, cultural and environmental wellbeing. In addition, indigenous concept of health is also a "whole of life" view, incorporating the relationship to the land, in which the land or earth is seen as a source of life rather than a resource,<sup>66</sup> and the cyclical concept

<sup>63</sup> Francis, *Laudato si': On care for our common home*.

<sup>64</sup> Ibid.

<sup>65</sup> Coates et al., *An ecospiritual perspective*, 381-399.

<sup>66</sup> Julian Robbins, and Jonathan Dewar, "Traditional Indigenous approaches to healing and the modern welfare of traditional knowledge, spirituality and lands: A critical reflection on practices and policies taken from the Canadian Indigenous example," *The International Indigenous Policy Journal*, 2, no. 4 (2011).

of life-death-life.<sup>67</sup> For instance, the Tahltan people in Canada look to the land for sustenance, guidance and healing. They say that like a mother, the land provides food, medicine and shelter. People, therefore, need a good knowledge base and a set of skills which enable them to live on the land. In the indigenous world, knowledge and skills are transmitted by relatives and elders, and everyone learns about the land in as much detail as possible.<sup>68</sup>

The analogy of a ‘wheel’ is used to describe the indigenous model of health in which when all factors, including food and nutrition, management of stress, contact with the land and nature, culture and identity, meaningful occupation, satisfactory human relations, are connected and strong, they contribute to a balanced health. On the contrary, ill health ensues if the “wheel wobbles” and these factors do not connect and become weak. Also, the past, present and future intertwine to impact the indigenous people’s health. In this indigenous model of health and well-being, therefore, the focus is on the health of the whole community rather than just on the individual.<sup>69</sup>

In summary, while proposing and explaining the indigenous relational model of ecological education and quality of life, some of the distinctions between Western mode of education and indigenous knowledge systems have also become evident. These distinctions, along with the others as mentioned by Ogunniyi,<sup>70</sup> are summarized in Table 1.

In addition, as it is described in the proposed model, the indigenous relational ecological education summons us to make our goal as living in harmony with the nature. Specifically, the indigenous assumption that all organisms in nature are interconnected and interdependent should help humans to co-exist in a state of belonging and develop a mindset of mutuality. Given the existing circumstances of human nature of subduing and controlling the nature, the process of developing a mindset of mutuality and interconnectedness can be started and carried out only through formal education and experiential training in a holistic or global consciousness, which involves that people should recognize the significance of not only of other people but also of other species to the global community’s comprehensive well-being and integral quality of life.

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<sup>67</sup> Kingsley et al., *If the land is healthy*, 291-299.

<sup>68</sup> Robbins and Dewar, *Traditional indigenous approaches to healing*.

<sup>69</sup> Kingsley et al., *If the land is healthy*, 291-299.

<sup>70</sup> Meshach Ogunniyi, “The Challenge of preparing and equipping science teachers in higher education to integrate scientific and indigenous knowledge systems for learners,” *South African Journal of Higher Education*, 18, no. 3 (2004): 289–304.

Moreover, the formal ecological education, first of all, should become an integral part of the mainstream education in the established settings. Secondly, it should be based on the indigenous assumptions that the ecological education should be place-based, context-oriented, and experiential in nature, with an important focus on both knowing and doing. As Pope Francis indicated, it also should recognize the spirituality or sanctity of ecology to achieve an integrated and a balanced, rather than the compartmentalized, comprehensive well-being and quality of life.<sup>71</sup>

*Table 1: Assumptions underlying Western and indigenous knowledge systems*

| Assumptions     | Western   | Indigenous  |
|-----------------|---|---|
| Nature          | <ul style="list-style-type: none"> <li>• Nature is real, observable and testable.</li> <li>• Humans are capable of understanding nature.</li> <li>• Nature can be subdued and controlled.</li> </ul>  | <ul style="list-style-type: none"> <li>• Nature is real and partly observable and testable.</li> <li>• Humans are capable of understanding only part of nature.</li> <li>• Live in harmony with nature.</li> </ul>  |
| Space           | <ul style="list-style-type: none"> <li>• Space is real and has definite dimensions.</li> </ul>  | <ul style="list-style-type: none"> <li>• Space is real, has definite dimensions but is ultimately incommensurable.</li> </ul>   |
| Time            | <ul style="list-style-type: none"> <li>• Time is real and has a continuous, irreversible series of duration.</li> </ul>   | <ul style="list-style-type: none"> <li>• Time is real, continuous, and cyclical.</li> </ul>   |
| Matter          | <ul style="list-style-type: none"> <li>• Matter is real and exists within time and space.</li> </ul>  | <ul style="list-style-type: none"> <li>• Matter is real and exists within time, space, and the ethereal realm.</li> </ul>   |
| Events          | <ul style="list-style-type: none"> <li>• All events have natural causes.</li> </ul>   | <ul style="list-style-type: none"> <li>• Events have both natural and unnatural causes.</li> </ul>  |
| Universe        | <ul style="list-style-type: none"> <li>• The universe is orderly and predictable – that is, nature is not capricious.</li> </ul>  | <ul style="list-style-type: none"> <li>• The universe is orderly, metaphysical, partly predictable and partly unpredictable.</li> </ul>   |
| Science         | <ul style="list-style-type: none"> <li>• Science is culture-free.</li> <li>• Scientific facts are tested observations.</li> </ul>   | <ul style="list-style-type: none"> <li>• Knowledge is a critical part of culture.</li> <li>• Facts are both tested and experiential.</li> </ul>   |
| Generalizations | <ul style="list-style-type: none"> <li>• Scientific laws/generalizations are causal, logical, rational, impersonal and universal.</li> <li>• Scientific generalizations (laws and theories) are declarative statements with universal application.</li> </ul> | <ul style="list-style-type: none"> <li>• Generalizations have causal, personal, rational/non-rational, logical/ non-logical dimensions.</li> <li>• Generalizations are relative statements which do not purport to have universal application.</li> </ul> |
| Education       | <ul style="list-style-type: none"> <li>• Critical-pedagogy</li> <li>• Laboratory</li> <li>• Classroom</li> </ul>  | <ul style="list-style-type: none"> <li>• Place-based</li> <li>• Context-oriented</li> <li>• Experiential</li> </ul>   |

<sup>71</sup> Francis, *Laudato si': On care for our common home*.

|                 |   |   |
|-----------------|---|---|
| Knowledge       | <ul style="list-style-type: none"><li>• Knowledge is culture-free.</li><li>• Knowledge is based on a dualistic world-view.</li><li>• Empirical</li><li>• Focus on knowing</li></ul> | <ul style="list-style-type: none"><li>• Knowledge is a critical part of culture.</li><li>• Knowledge is based on a monistic worldview.</li><li>• Environmental / Ecological</li><li>• Focus on both doing and knowing</li></ul> |
| Language        | <ul style="list-style-type: none"><li>• Language is not important to the workings of natural world.</li></ul>   | <ul style="list-style-type: none"><li>• Language is important as a creative force in the workings of both the natural and the unnatural worlds.</li></ul>   |
| Human Relations | <ul style="list-style-type: none"><li>• Individualistic and Independent</li></ul>   | <ul style="list-style-type: none"><li>• Collectivistic and Interdependent</li></ul>   |
| Consciousness   | <ul style="list-style-type: none"><li>• Local</li></ul>   | <ul style="list-style-type: none"><li>• Global</li></ul>  |
| Spirituality    | <ul style="list-style-type: none"><li>• Transcendental</li><li>• Abstract / Dogmatic</li></ul>  | <ul style="list-style-type: none"><li>• Immanent</li><li>• Holistic / Ecological</li></ul>  |
| Well-Being      | <ul style="list-style-type: none"><li>• Compartmentalized</li></ul>   | <ul style="list-style-type: none"><li>• Integrated / Balanced</li></ul>   |

Note: Adapted from Ogunniyi (2004) and slightly modified based on the relational model of this paper.

**Applications: *Laudato Si'*, Relational Perspective, and Fu Jen Catholic University**

Fu Jen Catholic University,<sup>72</sup> established in Beijing in 1925, was the first Catholic university in China. Moved and inspired by the Christian understanding of love and the Confucian ideals of education, the university adopted the name *Fu Jen* to give expression to its universal vision and mission realized through holistic education in the Chinese cultural context. The process of Fu Jen’s re-establishment in Taiwan<sup>73</sup> began in 1959 and it started operating formally in 1961. Right now, Fu Jen, as a leading private and Catholic institution in Taiwan, is considered as a comprehensive university offering holistic education and care for the students. Fu Jen University graduates a number of well-educated students, characterized by integrated physical, social, intellectual, aesthetic, moral, and spiritual development. Fu Jen also serves the society through various additional academic programs and community services. Aided by extensive scientific research, Fu Jen is committed to the pursuit of truth and the integration of Western and Chinese cultural values so as to promote the well-being of the human family. It has a well-balanced program between liberal education and professional training, with a special emphasis on humanistic discipline, which helps the students to foster personal development and prepare them to venture into the career world. Also, Fu Jen has established sister-school relationships with

<sup>72</sup> Fu Jen University, *About Fu Jen*.  
<sup>73</sup> Si-Ming Ke, “天主教輔仁大學90年歷史稿 1925~2015: 彰顯主榮的歷程與見證” (台北: 輔大書房, 2015).

renowned universities worldwide to stimulate international academic exchange, increase collaboration, and promote cultural dialogue.<sup>74</sup>

### *Course on Philosophy of Life*

In order to implement the emphasis on the education and formation of the whole person, Fu Jen University established Holistic Education Center, with the goal of imparting comprehensive knowledge to students so as to prepare them to adapt to their future social circumstances. Holistic Education<sup>75</sup> curriculum is designed according to the Fu Jen University's mission, goals and directives. Philosophy of Life<sup>76</sup> is one of the courses offered by the Holistic Education Center. It is a four-credit two-semester course, mandatory for all the undergraduate students. The course covers eight significant dimensions of life: (1) knowing oneself; (2) interpersonal relations; (3) marriage and family; (4) social issues and social justice; (5) environment; (6) aesthetics; (7) religion and faith; and (8) end of life issues and death. The core objectives of the Philosophy of Life course are: (1) guide students toward self-understanding; (2) help them foster life-long learning habits and independent thinking, (3) lead them to create a balanced and well-rounded formation of character; (4) make them to understand the value and dignity of humans; (5) inspire them to have a positive view of life; (6) encourage students to care for self, others, all life forms, and the environment; and (7) ultimately, help them to become aware of the ultimate meaning of life, experience the holiness and be one with the Transcendent or the God of their understanding.

In my experience of teaching the Philosophy of Life course, I try to include flipped classroom content and experiential activities. Most of the students like them and seem to learn a lot from such activities. I specifically include an activity on environmental experience and ecological awareness with such guidelines as creating a bond with the nature, finding one's place in the ecological world and re-establishing one's relationship with the natural world. Although I didn't have a specific focus on indigenous relational perspective of ecology, the reflections that the students share orally or in writing show that the whole activity implicitly is geared toward experiencing the relational perspective of ecology, including its aspects of co-dependency, harmony, spirituality, conversion, and well-being. In hindsight, I think this activity used the indigenous method of education and acquisition of knowledge, which is ecologically oriented, experientially grounded, and contextual and place-based. For example, one of the students said that "what I liked the most was a class

<sup>74</sup> Matthias Christian, "心火相傳：從歷史背景和時代發展看輔仁大學在台灣四十年牧靈福傳的歷史及展望。"

<sup>75</sup> Holistic Education. Fu Jen Catholic University.

<sup>76</sup> Philosophy of Life. Holistic Education Center.

and activity on human's relation with the natural environment. In particular, because the activity was carried out in a small group, I was able to feel my connection with the ocean and the creatures in it in the same length that I was feeling with my group members." Some of the students also shared that the activity changed their attitude toward the ecological life and that they would remember this awareness and use it in their life, particularly in their perspective on the relationship between the humans and the environment, an attitude that Pope Francis<sup>77</sup> called an ecological conversion or a change of life direction.

One significant aspect of Pope Francis' encyclical<sup>78</sup> is integral ecology as a new paradigm of justice. Such a paradigm of ecological justice respects our unique place as human beings in this world, our intimate relationship to our surroundings, and it acknowledges that nature cannot be regarded as something separate from ourselves. Our care for our common home and our goal for common good is achieved through ecological justice, through which ecological conversion takes place and relational harmony is established. I believe that a portion of this aspect of ecological justice is implemented when I also require Philosophy of Life students to plan a service learning activity in achieving the educational goal of social justice, which also includes ecological justice. In other words, some of the students plan and engage in environmental cleaning and protection, and sustenance activities as part of their learning through service and becoming aware of social justice issues. Such activities not only help them to be aware that the natural surroundings are integral to their lives, but also make them realize to give back what belongs to the nature.

### *Adventure and Exploratory Education*

One of the requirements for students of the Graduate Institute of Educational Leadership and Development (GIELD) at Fu Jen Catholic University is to participate in an outdoor adventurous and exploratory educational activity. Most of these activities are conducted in the natural environment, for as McGregor<sup>79</sup> says that indigenous knowledge is something one does, rather than simply something one knows. Some of the activities organized by GIELD include hiking, river trekking, boat racing, etc. The main goals of such activities are team building, leadership training, collaborative working, confronting fears, risk taking, experiential learning, and being one with the nature.<sup>80</sup>

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<sup>77</sup> Francis, *Laudato si': On care for our common home*.

<sup>78</sup> Ibid.

<sup>79</sup> McGregor, *Hawaiian subsistence, culture and spirituality*, 114-116.

<sup>80</sup> Graduate Institute of Educational Leadership and Development. Fu Jen Catholic University.

In the spring semester of 2015, I participated in the river trekking activity organized by the GIELD. The main purpose of the activity included facing one's mental, emotional, physical, motivational and collaborative challenges, and encouraging concurrent mastery in all the domains in the process of team building and achieving predetermined goals. These aspects are in line with the knowledge and skills of the indigenous relational perspective, in which health and wellness constitute a balance of four major factors: the body, the mind, the context and the spirit.<sup>81</sup> In our activity, mental challenges included thinking and planning; emotional challenges included facing inhibitions and fears; physical challenges included physical strength and endurance; motivational challenges included trying hard and working toward change, and collaborative challenges included interpersonal communication and working as a team. It was truly an adventurous activity for me and it indeed helped me personally to confront my fears of water and to trust others deeply in achieving the process of river trekking. I shared my experience with one of my indigenous friends, who instantly said: "This is natural for us the indigenous people." Truly, the indigenous people with their natural and familiar explorative skills can contribute a lot to the contemporary education methods, for from Salmon's perspective of kincentric ecology,<sup>82</sup> the natural world is not one of wonder but of familiarity to the indigenous peoples.

### *Adapting Laudato Si' to Everyday Life*

Pope Francis's *Laudato Si'*<sup>83</sup> is addressed to "every person on the planet," with a stern warning of the dangerous changes the earth's climate and ecosystems are undergoing. The encyclical considers the economic causes of the ecological problem, decries that problem's particularly disastrous impact on the poorest of the world, and offers a profound theological, moral and spiritual vision of the integral relationship between God, humanity and the natural world. In the midst of understanding these big and important topics, what is also necessary is to focus on what it might mean for an individual person to authentically live the teaching of *Laudato Si'* and what sort of impact this encyclical might have on the daily life of someone who authentically adapts the message to everyday life. In other words, Pope Francis<sup>84</sup> invites everyone to ecological conversion through change of motivation and process of education, and the starting point in this conversion process is to aim for a new lifestyle, made up of simple daily gestures.

<sup>81</sup> Coates et al., *An ecospiritual perspective*, 381-399.

<sup>82</sup> Salmon, *Kincentric ecology*, 1327-1332.

<sup>83</sup> Francis, *Laudato si: On care for our common home*.

<sup>84</sup> Ibid.

The Graduate Institute of Educational Leadership and Development, and the Bachelor Program in Educational Leadership and Technology Development in the College of Education at Fu Jen attempted to adapt the message of *Laudato Si'* to daily life. Since almost all the students are non-Catholic, one of the faculty members who is also a Catholic priest introduced the core message and spirit of the encyclical and led the students in making a year-long practical project where they can concretely implement the part of the encyclical's message in their daily lives. It was done as part of an Advent and the Christmas preparation in the month of December 2016 and the project is supposed to be implemented for one full year, after which the students will be facilitated to reflect on the process of implementation of their environmental and ecological plans. The project is titled "Covenant with the Nature."

Four batches of graduate students and two batches of undergraduate students came together a few times to discuss their team projects, and then shared them with all the students in the university chapel, which created an added atmosphere of spirituality and sanctity. Almost all the batches made a commitment to bring their own cutlery instead of using the disposable ones, and use the nondisposable shopping bags instead of using the plastic bags. Some also made a commitment not to buy the bottled water but rather use their own steel or other metal flasks and fill the water from the drinking water machine. Although these resolutions may sound small and silly, they are very important, for Pope Francis<sup>85</sup> said that ecological integration and conversion is made up of simple daily gestures. Moreover, these small steps and simple gestures are absolutely important in Taiwan where people often eat outside and mostly use the disposable utensils, particularly in the campus cafeterias. In addition to the above common commitments, some of the resolutions specific to some of the groups included reducing the usage of electricity and concretely measuring it by comparing the bills with the previous months and years, taking the stairs and avoiding the use of elevator, faithfully sorting out the garbage both at home and in school, catching oneself when one fails to follow the resolutions and even self-punishing for the violation. In order to encourage and motivate one another in implementing these resolutions, some of the batches decided to make use of the multimedia such as Twitter or Facebook to post what each one is doing, how they are doing and the challenges they face in implementing the plans and the ways to solve their problems. Also, every now and then, the students decided to share in small groups their achievements and challenges, assess their goals, and evaluate the results of their concrete actions. Of course, as I write this paper, I do not have concrete results of the students' implementation of their projects, but what I hear is that they continue to remain faithful to their projects.

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<sup>85</sup> Francis, *Laudato si': On care for our common home*.

In summary, from the contents of the students' projects on "Covenant with the Nature" based on the message and spirit of the *Laudato Si'*, it becomes obvious that the projects include the ecological, personal, spiritual, and moral visions of the encyclical. These visions are concretely implemented in one's family life, in small groups, and one's personal life. The students' projects also reflect the implicit spirituality, for Francis says that "Christian spirituality proposes a growth marked by moderation and the capacity to be happy with little. It is a return to that simplicity which allows us to stop and appreciate the small things."<sup>86</sup>

#### *Workshop for Dormitory Student Leaders*

Being a Catholic university and under the guidance of the Vice President for Mission and Identity, Fu Jen continuously attempts to fulfill its Catholic mission and evangelization through various forms, such as sacramental ministry, liturgies, faith-based and spiritually-oriented activities, care for the students and staff, ethical training, and character formation. As part of the character formation, Fu Jen's Dormitory Service Center organized a day of workshop for the dormitory student leaders on the topic of "Living and Transmitting the *Laudato Si's* Spirit through Experiential Activities."

Pope Francis<sup>87</sup> elaborates that in addition to the interpretation of the concept of environmental protection from the point of environmental education, it is necessary for humanity to have the most basic qualities to pay the "ecological debt" by promoting the ecological balance. The basic qualities necessary for this process include humility, respect, inclusiveness, empathy and gratitude. The workshop designed many experiential activities to guide students to focus on these basic qualities and to reflect on how to use them in their daily life, especially in relation to our common home.

In helping students to cultivate the aforementioned basic qualities, the workshop also focused on challenging the students' individual-oriented doctrine and self-centered consumerism<sup>88</sup> in their relation to the ecology and environment. The temptation to compulsive consumerism is probably strong for people in Taiwan, because it appears to be in the very cultural air that they breathe, and thus, many people easily become avid participants in a consumerist way of life without even realizing it. Hence, focusing on compulsive consumerism, the workshop also

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<sup>86</sup> Ibid, No. 222.

<sup>87</sup> Ibid.

<sup>88</sup> Francis, *Laudato si: On care for our common home*, Nos. 184, 209.

helped students to change their attitudes towards the nature and creation. Overall, the students had fun participating in the experiential activities. Although, no formal survey was done on the effects of the workshop, the feedback from the facilitator, evaluation by the organizers and casual conversations with the participants suggested that the workshop was quite successful in transmitting the message of the encyclical and in strengthening their character formation.

## Conclusion

From the above analyses and explanations, it becomes clear that the greatest challenge for educational reformers, especially for those who are promoting ecological education, is to find a respectful way to compare Western and indigenous methods of knowing and include both of them in contemporary modern education. It is challenging, yet crucial, not to distort local knowledge by making it conform to the Western epistemology endemic of educational culture,<sup>89</sup> particularly in the field of ecological education, that, as Pope Francis<sup>90</sup> says, must become a part and parcel in creating a culture of care and raising global awareness for our common home.

Merriam<sup>91</sup> discussed the relationship between research and knowledge in terms of three paradigms: (1) the *positivist or empirical-analytic view*, whose aim is to uncover laws that will explain the aspects of an objective reality through methods of measurement, observation, and analysis; (2) the *interpretive view*, which, in contrast to the positivist paradigm, assumes that there are multiple realities constructed by the human mind, and therefore, the context and the meaning that people make of that context are of utmost importance, and (3) the *critical paradigm*, which accepts multiple realities constructed by people's interpretations in their particular contexts, while recognizing the possibility that people's interpretations of the world may be ideologically distorted because of the possibility of the existing social structures being coercive and oppressive. In addition to these three paradigms, and in order to make space for a relational ecological perspective in our modern education system, a significant "paradigm shift" is necessary in which indigenous knowledge and ways of knowing are recognized as complex knowledge systems with an adaptive integrity of their own for our current education systems.<sup>92</sup> Indigenous knowledge and ecological systems should be recognized as a foreground in ecology; as an antidote to

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<sup>89</sup> Battiste, *Indigenous knowledge: Foundations for First Nations*.

<sup>90</sup> Francis, *Laudato si: On care for our common home*.

<sup>91</sup> Sharan Merriam, "How research produces knowledge," in *Adult education: Evolution and achievements in a developing field of study* (San Francisco, CA: Jossey-Bass, 1991), 42-65.

<sup>92</sup> Barnhardt and Kawagley, *Indigenous knowledge systems and Alaska native ways of knowing*, 8-23.

globalization in sustaining the environment,<sup>93</sup> and as an invaluable tool in providing better quality of life and promoting well-being.

Along these lines of thought, therefore, it must be said that the indigenous peoples and scholars in indigenous knowledge systems should be encouraged to introduce indigenous culture into educational systems using a holistic and an appropriate approach, through which not only the indigenous people but also non-indigenous people, educators and students, would benefit.<sup>94</sup> In other words, indigenous students would be empowered if indigenous knowledge, heritage, and languages are integrated into the national educational system,<sup>95</sup> and non-indigenous students will benefit from the traditionally valued and effective indigenous knowledge systems. This approach can never be false with regard to implementing the ecological education in raising global awareness of kincentricity with the nature and interdependence among all creatures, protecting and sustaining the environment, reconciling with nature, experiencing the sacred in nature, and promoting the quality of life and well-being.**PS**

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<sup>93</sup> Marie Battiste, *Animating sites of postcolonial education: Indigenous knowledge and the humanities* (Manitoba, MB, 2004).

<sup>94</sup> Wendy Brady, "Indigenous Australian education and globalization," *International Review of Education*, 43, nos. 5-6 (1997): 413-422.

<sup>95</sup> Battiste, *Indigenous knowledge: Foundations for First Nations*.

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