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FEATURE

Wish to WISHCRAFT: A Peek into an Environmentally Friendly School

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Abstract. *Mother earth is groaning harder than ever before due to the increasing environmental problems. Air and water pollution, waste mismanagement, and global warming are only few of the items in a long list of environmental problems contributing to this alarming state. The typical belief among citizens of developing countries is that these environmental issues are the responsibilities of various organizations be it NGOs, or governments. However, there are examples, though few and far between, of individuals and schools taking charge and making a positive difference in healing mother earth through their innovative environmental stewardship efforts. This qualitative case research probes WISHCRAFT, the recycling project of a private school in the Philippines that does not only help heal the earth, but also provides opportunities for quality education of its less privileged students.*

Keywords: WISHCRAFT, recycling, social responsibility, Education, school initiative, community, collaboration, Philippines, case study, inclusion, curriculum integration

Introduction

"When I grow up, I want my kids to grow up in a healthy world," wrote a 9-year old from Maryland to Jennifer DuBuisson, senior manager, environmental sustainability at LEGO (Clark, 2016, para. 2). In response to such letters from children, the LEGO Group launched "Build the Change" initiative in 2007 which consists of a series of yearly events that foster creativity in children to build their future school, neighborhood, or city. In the context of this example, one of the trends for the 21st century predicted by Marx (2018) is, millennials insisting on "solutions to accumulated problems and injustices" (para. 2). While threats to

planetary security abound, common opportunities that involve individuals of all ages, as well as corporate entities abound. Governments and non-profit organizations such as NGOs continue to do their bit in conserving nature in many developing countries (Asfaw, Botes, & Mengesha, 2017). However, every individual and organization has the social responsibility to be accountable for the benefit of the society and environment.

Social responsibility can be seen in various forms and organizations such as schools are influential agents to promote it. Cavite Institute (CI) in Silang, Philippines is a school that has taken social responsibility rather seriously through recycling. The recycling project, with the acronym WISHCRAFT, is intended to foster social responsibility that does not only benefit Mother Nature, but also its stakeholders, especially the students. This project is as an example of a school initiative which fosters collaboration among stakeholders while serving students with special needs and financial challenges. This qualitative case study was conducted to understand the functioning of WISHCRAFT as a contributor to social responsibility.

Review of Literature

The earth is suffering from the pollution of the air, water, and land as a result of indiscriminate disposal of waste. An analysis of the environmental condition points out that humankind in general, has not practiced responsible environmental stewardship, but has carelessly disregarded conservation of the environment (Temocin, 2016). Waste and its disposal are global issues as countries, organizations, and individuals are concerned about the effects of the pollution caused by trash on the people as well as the environment (Alam & Ahmade 2013; Ejaz, Akhtar, Nisar, & Ali Naeem, 2010; Hammed, Sridhar, Olaseha, Oloruntoba, & Ana, 2012; Howell, 2015; Lehmann, 2010; Mohamed, Al-Gheethi, & Yaakob, 2017; Rahman, Siwar, & Begum, 2017; Sullivan, 2014). As mentioned in Lehmann's study (2010), the widespread understanding of global warming and the effect of climate change are creating increased consciousness about waste management.

Recycling and reusing of wastes are increasingly becoming the cry of many as an effort to protect the environment. Various cities, companies, and organizations now adopt recycling projects (Cantu, 2011; Hammed et al., 2012; Lehmann, 2010; Mohamed et al., 2017; Rahman et al., 2017). With increase in recycling efforts, less waste materials are left lying around to contaminate the environment. Training in waste management can happen from early years of life—families and schools playing important roles.

Interestingly, environmentalist researchers advocate the inclusion of environmental issues in the curriculum of schools (Ardoin, Clark, & Kelsey, 2013). Studies show that several schools across the world integrate waste and

environmental education into the curriculum (Belamide & Mondejar, 2004; Cutter-Mackenzie, 2010; Mohamed et al., 2017). This integration teaches the students the importance of caring for the environment. An increased awareness in the younger generation, in turn, reduces earth-threatening activities from them.

School children as young as those in preschool and kindergarten can be educated on how to take care of the environment thus, leaving a lasting impression on their young minds (Belamide & Mondejar, 2004; Kahriman-Öztürk, Olgan, Güler, 2012; Mohamed et al., 2017). They grow up caring for mother earth. This education reduces the chances of them engaging in earth polluting activities when they become older.

The trash that litters the environment can however be useful. Studies show that various countries have adopted the collection of trash to generate much needed income and rid the earth of some of its waste (Fox, 2010; Mohamed et al., 2017; Rahman et al., 2017). Collected wastes are recycled or reused in order to reduce the amount of trash that pollutes the earth. Schools can promote recycling.

Successful school recycling projects do not happen by chance. There exists a strong collaboration between the school entities—from the administrators in their offices to the students in their classrooms (Cutter-Mackenzie, 2010). A definite action plan on how to carry out these recycling activities contributes to its success. People in the institution see how the recycling works and they are motivated to push on with the project (Belamide & Mondejar, 2004; Cutter-Mackenzie, 2010).

One may begin to wonder how to motivate young people to get involved in collecting and managing trash from home and the community. Having ownership of recycling projects however, gives students the needed motivation to contribute, hence increasing its success in the school. Students get a sense of purpose as they bring in their recyclables (Cutter-Mackenzie, 2010; James & Card, 2012). Thus from a young age, the valuable lesson of caring for the environment can become a passion.

Raising awareness on environmental care, however, is considered only "half the job of environmental education" (Saylan, as cited in Nijhuis, 2011, para. 3). Saylan suggested that students be given opportunities to address the environmental issues around their own neighborhood. Blumstein and Saylan (2007) pointed out the failure to make connection between students' personal experiences and the surrounding environmental situations. Over-consumption is seen as the heart of the state of environmental crisis. Teaching consumption control, according to Blumstein and Saylan (2007), is seen as one of the solutions to preservation of environment. Unfortunately, environmental stewardship is a rather neglected area in curriculum, even in Christian institutions. Carmichael (n.d.) lamented that "the focus of faith community's work on environmental issues has been on adult advocacy and civic engagement. . . but has left out intentional outreach to children and youth" (para. 1). In her online survey conducted in 2013 among a wide range

of Christian professionals (religious leaders, laity, faith-based environmental professionals), it was found that while the materials were adequate for children's Sunday School programs, lack of training in implementation was identified as a major barrier for the effectiveness of the curriculum. A study conducted in a Christian theological seminary found the curriculum lacking in environmental stewardship (Le Roux, 2017).

About two decades ago, Tucker (2001) challenged Christian schools, especially Adventist schools, on the need to uphold (a) environmental stewardship, (b) inclusive education, and (c) integrated curriculum. One of the suggestions he gave was that on-campus groups plan "responsible stewardship of the planet that God so loved that He gave His only begotten Son to save it (John 3:16)" (p. 180). Surely this challenge needs to be considered by Christian educators.

Realizing a need exists for the practice of environmental stewardship and thus the need for more studies of schools that represent social responsibility in this area, this study was seen appropriate. Studies point to the need to enhance environmental awareness among school students (Jaramillo, 2014; Mahajan & Darbari, 2014; Poonam, 2013) and to identify models that promote sustainable environmental stewardship. This study addresses the gap in literature to describe a model of a private school that implement environmental stewardship in a sustainable manner, that also supports inclusion and integrated curriculum.

A private school in Silang, Philippines is found to be a model in Asia to creatively and collaboratively implement environmental care through its recycling project, WISHCRAFT. Therefore, this present study set out to probe the following questions: (a) How can WISHCRAFT be described? (b) In what ways does WISHCARFT contribute to social responsibility? and (c) What challenges are along the way of this project?

Methodology

A qualitative research method was selected to study the in-depth functioning of a creative recycling system. A case study design was used to capture the uniqueness of the case. A short description of this research design is given as follows.

Research Design

As an appropriate qualitative design to conduct research in social sciences (Gaikwad, 2017), case study is defined by Merriam as "an in-depth description and analysis of a bounded system" (2009, p. 40) with importance given to it being a study conducted within a contemporary, real-life context (Yin, 2014). Creswell and Poth (2018) outline the features of case studies as the following: (a) Identification of the case, (b) Definition of bounded system, (c) Intention of the study with the case as instrumental—for general understanding or intrinsic—

unusual or unique, (d) Presentation of an in-depth view of the case, (e) Selection of data analysis—single or multiple cases, (f) Generation of case themes, and (g) Formation of assertions by the researcher, as lessons learned from the case study.

Specifically, this case study used the single instrumental case study type. The intent is to provide a general understanding of WISHCRAFT, a single case. Research questions reflect the insights that are to be gleaned from this study.

Research Setting

In the present case study research, the case is WISHCRAFT, a recycling project of CI. The bounded system consisted of the school, which included related school facilities, project coordinators and support team, teachers, and students of CI. Cavite Institute is a private school in Silang, Philippines in Asia that practices inclusion. The school's initiatives to be distinct and proactive in helping to heal the environment led to the birth of the WISHCRAFT project. The school partners with business enterprises, professional organizations, communities, and individuals to transform trash to cash for the scholarship students, including those with special needs. The soul of this project in the school is to change the perception of students towards taking care of the environment (Belamide & Mondejar, 2004).

This research study is on WISHCRAFT, which exemplified social responsibility, both in the curriculum and practice, and financially supported students with special needs. We realized the significance of WISHCRAFT during a fieldtrip to CI by the Inclusive Instruction class. A few months after this event, we sought permission to conduct a study on WISHCRAFT from the administrators of CI and the coordinators of WISHCRAFT.

Sampling

A purposive sampling was carried out to select the participants who were involved directly with the project and who were willing to share information. Four coordinators, two teachers, and two students were chosen as participants for the study. The research tools used were interviews, observations, documents, and audiovisual materials.

Data Collection

Data collection procedures began after obtaining permission to study from the CI gate-keepers (administrators of CI and coordinators of WISHCRAFT) and Ethical Review Board of Adventist International Institute of Advanced Studies. We made prior appointments for interviews and observations. Upon learning about our research interest, the responsible personnel provided us with valuable documents and a video pertaining to WISHCRAFT.

Observations were carried out once a week for three months at the recycling site of the school in order to study the procedures for recycling. On appointed days we interviewed four coordinators, two teachers, and two students. Data was recorded in field notes in the form of observation notes and interview transcripts. Our own personal memos of the research experiences were also part of the field notes. We, as researchers, also discussed our reflections at the end of each data collection session. Field notes in this study are referenced using the acronym FN.

Issues of quality criteria for this qualitative case study are established through the validity, reliability, and generalizability. Validity, which in qualitative research stands for credibility, was ascertained by providing direct quotations from data so that readers can verify the claims touching on the issue of trustworthiness of interpretations (O'reilly & Kiyimba, 2015). Credibility and thus validity was also established through triangulation by using multiple data sources (See Table 1).

An important evaluative criterion for qualitative research is trustworthiness, which is carried out through checking (a) credibility, (b) dependability, (c) transferability, and (d) confirmability. *Credibility* has to do with structuring the study to "seek and attend to complexity throughout a recursive research design process," (Ravitch & Carl, 2016, p. 188) which refers to the accuracy of the findings. Using triangulation of data collection and data analysis, and peer review (data was collected and analyzed by two of us as researchers) credibility was enhanced. *Dependability* is assured through the consistency of data processing with the findings (Merriam, 2009). In this study, we used triangulation and a clear audit trail—an account of how the research was conducted to enhance reliability (O'reilly & Kiyimba, 2015).

Transferability was established following O'reilly and Kiyimba's (2015) suggestion. They have suggested that in qualitative research, and thus in this study, analytical generalization is used by which readers may value the soundness of argument made and applicability to their own situations. Therefore, generalizations in qualitative research is considered representational—a context more representative of the one studied, the more applicable the results. We, as researchers, have attempted to provide a detailed description of the research context and setting. *Confirmability* points to seeking confirmable data even through researcher's subjectivity (Miles, Huberman, & Saldana, 2014). Strategies of triangulation and strengthening data through literature were used for this purpose.

Data Analysis

The data obtained through interviews, observations, documents, and audiovisual materials was analyzed using content analysis. Field notes were read multiple times to form codes, categories, and themes using an inductive process.

Triangulation of findings was possible comparing data obtained through multiple sources (observations, interviews, documents, and audio visual materials).

Table 1

Triangulation Matrix

Research Question	Data Source 1	Data Source 2	Data Source 3	Data Source 4
1. What is WISHCRAFT?	Document	Interview		AV Materials
2. How does WISHCRAFT contribute to social responsibility?	Observations	Interviews	Documents	AV Materials
3. What challenges are along the way of this project?	Interviews	Documents		

Ethical Considerations

After obtaining permission from CI and Ethical Review Board of our own institution to conduct the study, we followed ethical procedures dealing with human subjects through obtaining informed consent from the participants. They were informed of voluntary participation and could withdraw anytime. Though the institution's name was still retained (as given permission by the CI school director), the specific participants' names are not identified in this research report. Feedback was provided of the study when representatives of the WISHCRAFT project were invited to a research conference presentation that featured the study.

Results

The data collected helped answer the three research questions of this study: (a) How can WISHCRAFT be described? (b) In what ways does WISHCARFT contribute to social responsibility? and (c) What challenges are along the way of this project? Each of these questions is addressed in the section below.

Description of WISHCRAFT

The first research question addresses the description of WISHCRAFT. The acronym WISHCRAFT has had two interesting derivations of expressions, the first one being "Win a scholarship through the collection of recyclables and frequently generated trash" (Belamide & Mondejar, 2004). This expression was eventually substituted by "We Integrate Scholarship with the Collection of Recyclables and

Frequently Generated Trash." This label is posted in the trash collection shed of the school and in other contexts of spelling out WISHCRAFT (FN, p. 8).

As described by Belamide and Mondejar (2004), WISHCRAFT is a recycling project conceptualised by Elin Mondejar. There was a pilot testing of the project in 2002. However, it was officially launched in 2004. Students bring recyclables from their homes, neighbors, and relatives. Teachers, staff, and administrators also bring recyclables. At the classroom level, there are bins labeled for various kinds of trash. The trash collected from each classroom, after depositing in the recovery facility and receipted, is used to sponsor a scholar from that class. The whole school is involved in the project. Members of the community also contribute to the project by bringing recyclables.

The recyclables brought to the school are taken to the recovery facility where they are segregated into cartons, paper, metal, plastic, bottles, and used equipment. These items are then labeled and receipted. Up to five consignments per day are received at the recovery facility (FN, p. 1). Trucks come at scheduled times to take the trash to junk shops and the cash is paid to the school. Cash equivalents allocated for scholarship—individual or general. The individual scholarship goes to a particular student, while the general is reserved for deserving students (FN, p. 2).

Ways WISHCARFT Contributes to Social Responsibility

The second research question on how WISHCRAFT contributes to social responsibility has taken us to data obtained from all the sources—observations, interviews, documents, and audiovisual materials. Analyzing the data helped

identify seven themes that contribute to the response to the research question. These themes (see Figure 1) are (a) Environmental consciousness, (b) Earth preservation, (c) Collaboration, (d) Scholarship, (e) Community building, (f) Sustainability, and (g) Growth. Each of these themes is elaborated subsequently.

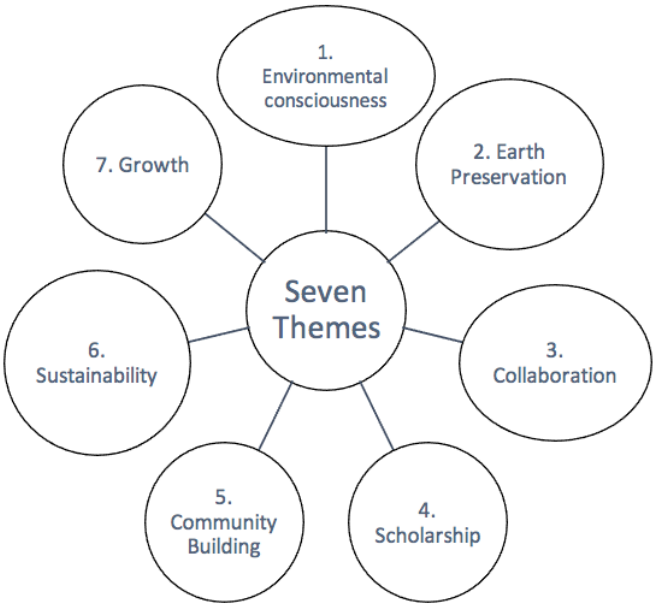

Figure 1. Themes on social responsibility through WISHCRAFT.

Theme 1: Environmental consciousness. The recycling concept at CI has shown total involvement of the school: students, school personnel, families and community. Students who are part of the scholarship expressed the long-term impact of this project as it not only contributes to their scholarship but also it helps them look at trash in a positive way. "There is a big difference in the way I look at trash these days. Before I used to ignore trash lying around, but now I pick them up and dispose them properly. If they are recyclables that can be brought to school, I do that too" said a student (FN, p. 3). Another student stated that even after graduating from the school, she would continue to practice proper recycling and encourage others to do so. It is obvious that WISHCRAFT has imprinted a strong impression of social responsibility in the young minds.

Theme 2: Earth preservation. The project has opened up a creative and productive avenue for trash recycling that did not exist before. One of the project coordinators said, "We are committed to support this project that makes the

environment around us cleaner" (FN, p. 2). This is a feeling that all the participants shared. The awareness of the harm non-recyclable trash can do to the environment has been an impetus to also reduce trash.

Theme 3: Collaboration. Interestingly, WISHCRAFT has created a sense of collaboration that is unique to CI. Even as the typical school activities bring collaboration of teachers, students, parents and administrators, this project has taken it to another new level. At the classroom scene, students and teachers actively engage in sorting and depositing recyclable trash for scholarship. Classes have scholars who are selected based on criteria such as good scholastic performance, financial challenges, and talents. "The participation [in the project] is voluntary. There is no competition among the students," (FN, p. 2) stated a project coordinator. With this background, everyone in a class contributes to the recycling project.

This collaboration extends to the family and even to the community. Families of CI students have made known the project around the neighborhood. In some communities, neighbors pool together the recyclables and deposit them at a designated place. These items are brought by those responsible to the school to count toward the scholarship of a specific student or for a general scholarship fund. The news of WISHCRAFT has spread around, and even interested well-wishers and businesses contribute higher-valued trash such as white paper, used equipment, and other recyclables. It is noteworthy that corporate sponsorships through bulk trash (Santos, 2010) also support collaboration.

Theme 4: Scholarships. Quality education comes with a cost and thus affordability is an issue for families in the low-income bracket. The class size at CI is limited to 25 to 30 students (Santos, 2010) and also as seen through observations. CI has provided access to quality education, in this school at discounted rate. "I am grateful that my parents would pay less fees," stated a student (FN, p. 3). WISHCRAFT was seen as a "big help for my family," another student affirmed (FN, p. 4). At the school level, the project also class-based, implying that students and teachers of a specific class support the selected scholars within that class through bringing recyclables. These scholars appreciate the support of other classmates who do not benefit financially and are not part of the WISHCRFT scholarship. "We have a lot of unity in our class for others," (FN, p. 3) mentioned a student referring to the collaboration of non-scholars. The scholars are also motivated to keep up their academic performance recognizing this peer and teacher support and also to sustain the scholarship.

An important dimension of scholarship also has to do with the financial support of those students with special needs who are enrolled in CI. Being an inclusive school, CI accepts students with identified special needs who are placed using the principle of Least Restrictive Environment. While there is a special education facility in the school, students are integrated in general education classes when they show evidence of preparedness. Observations of classes showed that

these inclusive classes had additional support members such as a special education teacher and paraprofessionals. Thus, the tuition fee for the students with special needs "costs as much as 50,000 pesos a year" (Santos, 2010, para. 15) which exceeds that of the regular students (which is about 30,000 Philippine pesos per year). WISHCRAFT makes education affordable to the families of these students with special needs.

It was interesting to note that more than 800 students in CI (enrollment of more than 1000+) receive discount in fee annually through WISHCRAFT. Teachers' children are also recipients of this discount as teachers too actively engage in this recycling project, as mentioned by a teacher (FN, p. 3). While this is impetus for teachers with children who are studying at CI, other teachers too are involved in this project.

Theme 5: Community development. The fifth theme deriving from the data has to do with the positive changes in the society deriving from WISHCRAFT. Care for neighborhoods through trash management has created cleaner communities. Since environmental awareness is also part of the school curriculum theoretically and practically, the school trains students in consumer habits. "We have shown the social benefit . . . they [students] can do something," (FN, p. 6) stated a project coordinator. The students are alerted on food packaging using non-biodegradable materials and are discouraged to buy those foods. The CI school canteen provides natural food items (not packed in plastic). This message is also shared with other schools where WISHCRAFT is promoted.

Another reminder on non-biodegradables' impact on environment comes through the use of eco bricks. Observation of school vicinity reveals special benches primarily made of plastic bottles stuffed with non-biodegradable plastic (FN, p. 10). While these plastic materials are put to good use, students are constantly made aware of the impact of non-biodegradable packaging.

The school director described the outreach activities of CI in other schools and barangays (neighborhood). "The support of the town officials has been good," (FN 6) said a project coordinator. The school had received in 2004 an award by the World Bank Group for the innovative development ideas through WISHCRAFT (Belamide & Mondejar, 2004). Part of the money from this award was used to conduct training in recycling at other neighboring schools. CI is continuing to nurture partnerships with other schools to have recycling programs. The school director is currently also working with another municipality, the personnel who seem enthusiastic about the recycling project and she expressed much satisfaction about this (FN, p. 5).

Theme 6: Sustainability. On the issue of sustainability of the project, the very fact that the project has been ongoing for the past 15 years (since its beginnings in 2002) points to it being sustainable. Sustainability is attributed to several factors. The strongest support comes from the project administrators and school

administrators. "The school management leadership promotes the activities. We have 100% participation, . . . and the attitude of all is that of cooperation and helping," said one of the project coordinators (FN, p. 2).

Since recyclables are accepted on a daily basis on working days, the project is kept alive. About five consignments from outside the school come in daily, according to another project personnel (FN, p. 1). On-call appointments to turn in recyclables also come from the community. If the recyclables are substantial, trucks are sent to pick them up.

One of the important sustainability traits of WISHCRAFT is evident in the mindset of the students. Students expressed their desire to continue to support conserving and preserving environment even after they leave the school. One student said, "This idea is important to me and after graduating, I will still continue to support the environment" (FN, p. 4).

Theme 7: Growth. From its beginnings with 48 scholars in 2002, the number of scholars receiving funds through WISHCRAFT has increased to over 850. The project also has seen alternative practices in other schools. As examples, a public school uses recyclables for funding school supplies; a farm school uses trash-to-cash to pay teachers' salaries; and a theatre school considers recyclables towards entrance fee (FN, p. 6).

Challenges of WISHCRAFT

The third and final research question addresses the challenges that WISHCRAFT faces. The answer was mainly found in the interview questions and documents. According to a project coordinator, plastic waste was still a big problem. "Factories continue to package items in plastic which are not bio-degradable or are only oxo-biodegradable as these are not fully bio-degradable but only disintegrate into pieces," (FN, p. 6). She wished that factories and companies would be more responsible in their packaging. The packaging of fast foods and snacks has also taken its toll in increasing trash.

The project has seen low times, according to the teachers and project coordinators (FN, pp. 3, 5). To recover from such situation, CI has started a talent search program called Mr. & Miss WISHCRAFT. Outstanding WISHCRAFT scholars are identified and recognized in a cultural program. The selected students are dressed beautifully in recyclable materials and paraded. Parents and community members attend the cultural program which gives special mention of environmental care.

Another challenge the project faces is related to adoption in other schools. Though WISHCRAFT has been promoted in other private as well as public schools by CI personnel and has received much acceptance, most of these schools have not sustained the project for long. Possibly the leadership support and school-wide

participation factors could be areas that can be tapped for better adoption of WISHCRAFT or similar recycling projects.

Conclusion and Recommendations

The above discussion has provided a description of what WISHCRAFT project in CI looks like. It is obvious that CI, can be considered as a school that integrates environmental education in the curriculum like the schools mentioned in previous studies (Belamide & Mondejar, 2004; Cutter-Mackenzie, 2010; Mohamed et al., 2017). It is also clear that waste management can look like a trash-to-cash project, given a favorable environment for the project to flourish. CI's environmental education also gives empowerment to students, especially those with special needs, through the generation of income (Fox, 2010; Mohamed et al., 2017; Rahman et al., 2017). Another important finding of the study is that WISHCRAFT addresses the much-needed connection between students' personal experiences and the immediate environmental as pointed by Blumstein and Saylan (2007). Reducing trash has also been a related outcome of WISHCRAFT. Most importantly, WISHCRAFT also serves as a model of collaboration in social responsibility initiated by a school, addressing the challenges presented by Tucker (2001) for schools to strengthen environmental stewardship, enhance integrated curriculum, and promote inclusion. Though challenges exist especially from outside sources beyond one's control, continuing to pursue the cause for a greener environment is still possible and necessary. It can be asserted from this study that instead of just *wishing* to do great things for environmental stewardship, schools adopt projects like *WISHCRAFT*. Surely, wish to WISHCRAFT is a practical route to social responsibility.

Recommendations deriving from this study are as follows: Other Christian schools, especially Adventist schools, promote social responsibility adopting a similar model as WISHCRAFT; a historical study of WISHCRAFT that focuses on the growth and elements of sustainability through the past 15 years of its functioning be carried out; and quantitative study of the attitude towards WISHCRAFT of students, teachers, and administrators of CI be conducted in order to understand the intensity of social responsibility of this project. This would reveal if there exists any relationship between attitude and effectiveness of environmental projects such as WISHCRAFT.

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