

A Framework for the Integration of Education for Sustainable Development in the Handicraft Curriculum of the Philippines

Kristyn T. Caragay

University of the Philippines College of Home Economics,
Diliman, Quezon City
PHILIPPINES.

kitty.caragay@gmail.com

ABSTRACT

The current handicraft curriculum (HC) of the Philippines is mainly concerned with vocational and entrepreneurial applications. The author crafted a framework that integrated UNESCO's Education for Sustainable Development (ESD) framework to provide a holistic approach to the HC. The paper aimed to investigate the interconnection of Sustainable Development (SD) principles, which are the basis for ESD, and handicraft concepts in terms of environmental, economic and socio-cultural themes. It created a visual representation based on Flint's "Sustainability Symbolism (2010)" in showing how to achieve balance between the three themes of SD through the HC. It also provided suggestions on appropriate pedagogical techniques that can be adapted to the HC to help address ESD goals. Finally, it gave recommendations on how the framework can be implemented through the re-orientation of the HC and enabling handicrafts teachers integrate ESD in the curriculum.

Underscoring the multidisciplinary nature of ESC, the framework provides a broader perspective of handicraft. Integrating ESD principles to the HC and adopting the framework as a whole, will promote socio-cultural, economic as well as environmental relevance. It will not only be limited then, to vocational and entrepreneurial applications. However, since the nature of handicrafts and SD are sensitive to local context, the author recommends conducting further studies in different communities to explore ways of integrating ESD to the HC. There is also a need to investigate community-specific examples on applying the framework.

The framework is envisioned to enrich not only the HC, but also handicraft practice as a whole, benefitting individuals and communities and moving them towards sustainable development. Integrating ESD into the HC is hoped to contribute in improving the country's conditions. Finally, the author calls for institutional support in the implementation of the framework.

Keywords: *Handicrafts, Handicraft Curriculum, Crafts Education, Education for Sustainable Development, Sustainable Development*

INTRODUCTION

The philosophy behind the Handicraft Curriculum (HC) in the Philippines has evolved throughout history. Traditionally, teaching handicraft is used to indoctrinate students on their roles in society (PAHEA, 1994). Similarly, the current HC curriculum is mainly concerned with vocational applications and livelihood (Caragay, 2012). The current generation of students' lack of appreciation for handicrafts, along with the lack of support from related institutions, further contribute to the limited perspective and recognition of its value (Mason, et al., 2000 and Caragay, 2012).

Caragay (2012) found that not all Philippine schools support handicrafts. In one of the case studies, a school head admitted that handicraft classes are not a priority in terms of resource allocation. A regional trade and industry official also relayed that food enterprises are prioritized over handicraft enterprises. Moreover, there is a lack of public schools offering handicraft programs because of a shortage in both competent teachers and student interest. According to teachers, students in the secondary level did not have an appreciation for learning handicrafts. They viewed handicraft classes as old-fashioned or obsolete. Instead, they favored computer classes, which did not require time-consuming work. They also perceived computer classes more relevant in today's society. (Caragay, 2012).

This paper aims to craft a framework that offers a holistic approach in teaching handicrafts to make it more relevant in today's Philippine society. Considering the current status of the HC, it proposes to integrate the Education for Sustainable Development (ESD) framework as a way to address the concerns mentioned above. At the same time, it presents the HC as a valuable approach towards achieving Sustainable Development.

Rationale for adopting the ESD Framework

ESD's vision is "a world where everyone has the opportunity to benefit from education and learn the values, behavior and lifestyles required for a sustainable future and for positive societal transformation (UNESCO, 2005a)." In discussing ESD, it is first important to establish the principles of Sustainable Development (SD), which is the foundation of ESD. After all, ESD is a reaction to the poor implementation of the concept of SD (UNESCO, 2005a).

The idea of SD can be traced back to the 1960s, when people first became concerned with economic development and modernization, and science and technology was viewed as a road to prosperity. At that time, environmental movements criticized the West's conspicuous consumption, which had a negative impact on the environment (Elliot, 2006). Governor Harlem Brundtland first used the term SD in the 1984 World Commission on Environment and Development (Elliot, 2006). In his 1987 report, "Our Common Future," he defined SD as "[d]evelopment that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Dresner, 2002; UNESCO, 2005; Elliot, 2006).

Two important issues provided impetus to the concept of sustainable development on a global scale. The first one is widespread poverty, where development is needed to provide basic human needs. The second is the depletion and degradation of natural resources, an issue that concerns both developing and wealthy nations (Flint, 2010). The 2002 Johannesburg World Summit on Sustainable Development also established that environmental, social, and economic development are interdependent, and that sustainability is a global issue (Potter et al. as cited by Dresner, 2002). The UNESCO (2005) also recognizes that these three pillars – economic development, social development and environmental preservation – are "interdependent and mutually reinforcing (UNESCO, 2005a, 2012)." For SD to happen, there should be a balance between the three pillars (Zenelaj, 2013). During the 2002 summit, the inclusion and recognition of education and culture as part of SD was also established (Bigg as cited by Elliot, 2006)

Sustainable Development addresses the primary issues of the Philippines, which according to the UNDP (2010) has a medium human development ranking with 22% of its population living below the poverty line (UNESCO, 2009). But even if the Philippine economy is lagging in development,

the Philippines has a wealth of other assets such as natural resources and cultural heritage. These can be tapped to alleviate the country's condition. This means that we have to safeguard and appropriately utilize all our resources in moving towards SD.

According to Zenelaj (2013) SD "requires major and radical changes, in particular to human behaviors and habits." The author proposes that the HC can contribute in achieving these changes.

Objectives

The paper aims to analyze the interconnection of ESD and HC. This was done through a review of ESD themes and their relation to handicraft concepts. A visual representation based on Flints' "Sustainability Symbolism" model (2010) was adapted to illustrate the interconnection of the concepts. The second part of the proposal is intended to suggest pedagogical techniques that will address ESD concerns through the HC. Lastly, the author provides recommendations for implementing the framework.

The paper tried to fill in the gap of looking into operational guidelines on how to actually integrate ESD into the curriculum. This is a problem that has to be addressed with regard to the promotion and implementation of ESD as cited by a number of UNESCO publications and ESD authors such as Macfarlane and Ogazon, 2011; Paraschivescu and Botez, 2011; Pavlova, 2012; Rauch and Steiner, 2013 and Firth and Smith 2013. Based on the review of literature, there have been attempts to study how ESD can be implemented in the educational system. However, in the HC in particular, there has been no attempt so far, to integrate ESD into the curriculum.

The paper also seeks to convince educational leaders, planners and administrators to support the integration of ESD into the HC and give it due importance. It hopes to encourage handicrafts teachers to adapt the framework in their respective classes to enhance the HC.

PROPOSED FRAMEWORK: INTEGRATING ESD TO THE HC

According to the UNESCO (2005a), ESD develops the "skills, capacities, values, and knowledge required for Sustainable Development." This part of the paper explores the interconnection of SD themes and Handicraft ideas. It also discusses how the themes can be integrated to the HC and explains how the HC can contribute in addressing ESD goals. These include environmental, economic and socio-cultural themes.

Environment (Planet)

The environmental theme can be considered as the most popular theme in ESD. According to UNESCO (2009), "Environmental Education" is the most searched word in Google among the SD themes. In the Philippines, priority is also given to environmental education in terms of achieving ESD, as seen in the types of projects supported by the Department of Education (such as the "School inside the garden", 1995; Mainstreaming of DRRM in the school system, 2007; Project Eco-Kids, 2008; and the Search for Sustainable and Eco-friendly Schools, 2011) as well as the existence of the "The National Environmental Education Action Plan for Sustainable Development (UNESCO, 2011)."

Handicraft likewise easily connects with the environmental themes of SD. Handicraft utilizes the

natural environment as a source of both materials (Kraus as cited by Shivers, 1974; Nedelcheva and Dogan, 2008; Kokko and Dillon, 2011) and inspiration (Glaveanu, 2014). The practice leads the “maker to respect and understand nature (Pollanen, 2009).” This relationship provides an opportunity to integrate themes related to awareness of natural resources (UNESCO, 2005a, 2007, 2009) into the HC. As such, the appreciation and use of abundant raw materials can be incorporated in the HC through handicraft projects that involve those materials.

Caragay (2010) observed that the current HC in public high schools requires the use of standard raw materials (such as wood, shell, metal, etc.). The problem is that these materials are not readily available in all areas of the country and may be costly to acquire for some students. Natural resources may also be largely unavailable in certain areas, especially in urban environments. On the other hand, there are natural resources in some areas that have the potential to be used in handicraft projects, but are not being used because they are not in the HC. Furthermore, non-traditional media such as scrap materials from synthetic products can also be used for handicrafts. Oftentimes, however, these merely end up as waste materials (Linderman and Linderman, 1984; Aribas, 2009). Hence, SD skills such as recycling can also be integrated in the HC.

The environmental impacts of human activities (such as handicraft practices) and solutions such as resource management (UNESCO, 2007, 2009) and the use of renewable materials (Rio Declaration cited by UNESCO, 2012a) can be emphasized during discussions on handicraft materials. The connection of environmental protection and management (UNESCO, 2007) can also be related to climate change and disaster risk reduction management, which are priority topics of ESD in the Philippines (UNESCO, 2011).

Economy (Profits)

According to Ghouse (2012), “Handicrafts are an important productive sector and export commodity for many developing countries and in some countries constitute a significant part of the export economy. The growth of international markets for home accessory products and an increased interest in global goods have opened up new-market opportunities for artisans.” Nedelcheva and Dogan (2008) and Maiwada, et al. (2012) attested to the significance of handicrafts in the economy and in “wealth creation.” The Philippine Chamber of Handicrafts Industries, Inc., as reported by Orlina, also recognizes the role of the industry in poverty reduction, especially in rural areas. It is advantageous mainly because of the low capital required to set-up a handicraft enterprise. Russu (2012) agrees that handicraft enterprises are helpful in improving small communities’ quality of life, as it contributes to food security and healthcare.

The existence of this opportunity strengthens the role of HC in motivating students to participate in the handicraft industry. According to Shivers (1974), learning about handicrafts can also lead to possible careers in the future. Although the existing HC in the Philippines is oriented towards the vocational and entrepreneurial applications of handicrafts, the HC should also be able to present the handicraft industry as a viable professional field. More importantly, it should also be able to demonstrate how handicraft entrepreneurship leads to SD (Nwazor, 2012) by providing solutions to social problems such as unemployment (Salau, 2012 and Iakovleva, 2012). Moreover, economy in terms of profit is not entrepreneurship’s only connection to SD themes. It will also be beneficial to consider how entrepreneurship can promote social change (DeCarlo, 2005; Maiwada, et al., 2012; and Amatucci, et al. 2013), which is the third theme of SD.

Socio-Cultural (People)

Caragay (2010) found that the Socio-Cultural theme was the least integrated among the SD themes. The author argues that there is a great opportunity to integrate socio-cultural themes in the HC. The main topics that can be integrated into the HC through its connection include: 1.) Cultural heritage; 2.) Well-being, empowerment and social inclusion; 3.) Participation and social activism; and 4.) Sustainable consumption.

Cultural Heritage

The HC is a good platform to learn about cultural heritage. The studies of Nedelcheva, et al. (2008), Kokko and Dillon (2011), Russu (2011) and Glaveanu (2014) elucidate that handicrafts and handicraft traditions represent cultural heritage. According to these authors, culture is reflected in handicrafts, such as in household ornaments, in activities such as food preparation and in community traditions such as festivals and celebrations. Handicrafts as cultural products represent a communities' "material, intellectual, spiritual, and emotional characteristic (Russu, 2011)." These traditions are transmitted from generation to generation and further highlight the social sustainability aspect of SD.

Cultural heritage can thus be integrated in the HC, particularly in the Philippines, which has a rich and diverse cultural heritage. For instance, handicraft projects can be made to coincide with local festivals and celebrations. Students can also learn about different lifestyles and cultural practices by studying handicraft techniques. This gives the HC a chance to emphasize cultural diversity and understanding, another SD theme (UNESCO, 2005a, 2012b, 2007, 2009).

Well-being, empowerment and social inclusion

A number of studies have proven the benefits of handicrafts to people with physical and mental challenges as well as to senior citizens. Handicrafts as occupational therapy provide a medium for personal expression. According to Pöllänen (2009) handicrafts have a positive impact on an individual's physiology (ex. heart rate), psychophysiology (ex. pain), sensory motor development, perception, cognition, behavior, emotion (including stress- management), communication, interpersonal relations and creativity. It empowers the individuals by building their self-confidence as they take control of a medium and complete a project (Harris, 2008; Pöllänen, 2009; Pöllänen, 2012).

Širka (2012) found that for senior citizens, handicrafts become a "meaningful pastime" and an opportunity to socialize, leading to emotional satisfaction. Maidment and Macfarlane (2011) added that handicraft is also a way for ageing women to engage with the community. The idea that handicraft encourages wellness can be related to health themes (UNESCO 2012b, 2007, 2009) and should be emphasized in HC as well.

The previous paragraph explains how handicraft fosters social inclusion, which is also a theme under the social theme of SD (UNESCO, 2005a, 2005d, 2012b, 2012a, 2007, 2009). To further emphasize the contribution of handicrafts to social inclusion, PCHII reported that the handicraft industry "involves women, the underprivileged section of society and minorities and out-of-school youth among others."

Participation and social activism

Kokko and Dillon (2011) pointed out that handicrafts are valued as gifts, which strengthens people's relationships and reflects the "social nature of crafts." The modern movement called craftivism – from the words craft and activism – practices this spirit of handmade gift giving. Solomon (2013) also cited examples of craftivists creating online communities that share handicraft techniques with each other for free. This "[a]ffective labor (Bratich and Brush as cited by Garber, 2014)" in handicraft making does not only translate to gift giving, it also promotes "values and practices such as mentorship and community building", highlighting the participatory aspect of SD (UNESCO, 2005d, 2012, 2009).

The idea of crafts as activism on the other hand can be found in the use of the medium to express political statements. One example is Marianne Jørgenson's "Pink Tank" project, which involved professional and amateur crafters covering an army tank with knitted cloth as a means to protest the war in Iraq (Solomon, 2013). The HC can use handicrafts to promote activism and incorporate social themes related to SD such as human rights (UNESCO, 2005a, 2012b, 2009); peace, tolerance and security (UNESCO, 2005a, 2005d, 2007, 2009, 2012a, 2012b, 2011); and gender equality (UNESCO, 2005a, 2005d, 2007, 2009, 2012a, 2012b). Alternatively, craftivist work related to SD themes can be appreciated and discussed in the HC.

Sustainable Consumption

Another important aspect of craftivism is that it is a "reaction to capitalist consumer culture (Garber, 2014)." Alonso, et al (2009), Russu (2011) Bratich and Brush (2011) and Kokko and Dillon (2011) blame globalization for the rise of this culture. The demand for cheap and fast delivery of goods as supported by modern technology supersedes the interest in handicraft, which is naturally slow in production.

This is how the SD themes of consumer development and sustainable consumption (UNESCO, 2012b, 2007) can be connected to the HC. The HC can also emphasize that certain products can be made instead of bought. Such discussions will include self-sufficiency.

In another perspective, since consumerism is ingrained in our culture (Zenelaj, 2013), the HC can provide an opportunity to develop responsible consumerism. This can be done by evaluating the sustainable production of handicrafts and by analyzing the quality they bring to consumers' lives. This critical practice in evaluating handicraft products can then be applied to other consumer goods.

VISUAL REPRESENTATION OF THE INTERCONNECTION OF ESD AND HC

The themes presented above are summarized in a visual presentation based on Flint's (2010) "Sustainability Symbol" model. Flint offers a holistic approach – also referred to as systems' thinking – in looking at the concept of SD. He made a model that shows the interrelatedness as well as the balance of the SD themes, as represented by 3 overlapping circles. This shows that decisions made on one of the SD themes also affect the other two themes. The triangle that represents the 3Ps (Planet, People and Profits) shows the implications of the SD themes to the triple bottom line (TBL). It also shows that community capacity is needed to support stewardship and economic

development. The triangle is incomplete to show that “human potential is a work in progress.” (Flint, 2010).

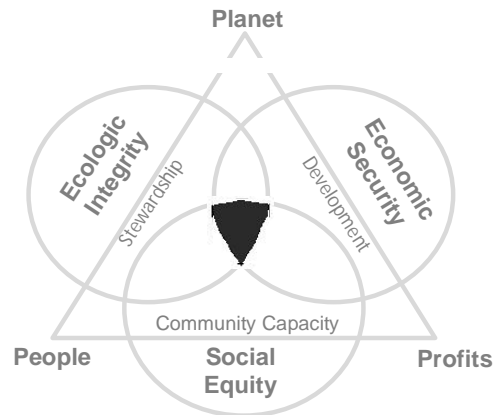


Figure 1. Sustainability Symbolism. Adapted from “Symbolism of Sustainability: Means of Operationalizing the Concept,” by Flint, 2010. *Synesis: A Journal of Science, Technology, Ethics, Policy*, 2010, volume 1, p. 33. Reproduced with permission.

Figure 2 shows how handicraft concepts arise from Flint’s approach to SD. This will be discussed in the next part of the paper.

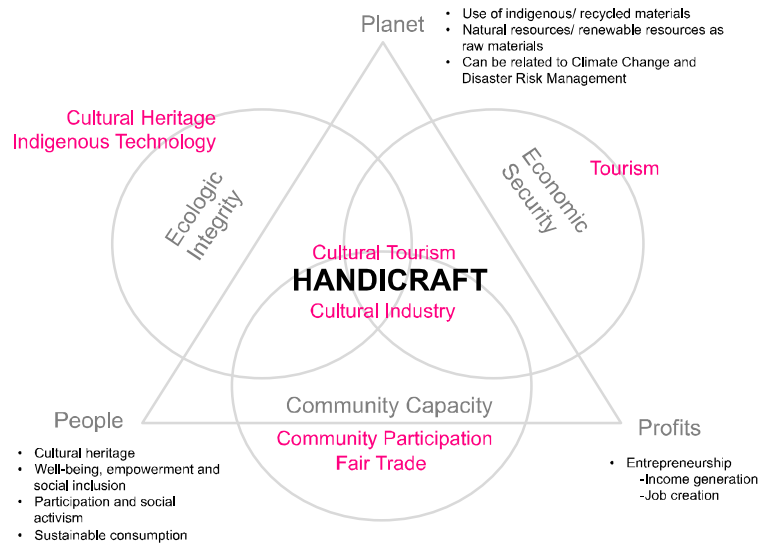


Figure 2. The Interconnection between Handicraft and SD.

Achieving Balance

The model shows that a balance between the planet, profits and people – the environmental, economic and socio-cultural aspect of handicrafts – can be achieved by considering handicraft products as a cultural industry, and handicraft making as a form of cultural tourism. Kokko and Dillon (2011) echoed Liebl and Thirthankar's belief that "no traditional craft skill can live on unless it has a viable market."

Handicraft is considered a cultural industry, which means that they base their industry from "heritage, traditional knowledge and the artistic element of creativity (Maiwada, et al., 2012)." Cultural industries help in wealth creation by helping people generate income while at the same time encouraging creativity. These industries empower people and improve their social lives (Maiwada, et al., 2012).

As previously mentioned handicraft is also beneficial as an artistic process because it enhances the creativity of its makers (UNESCO, 2005a; Philippine Chamber of Handicraft Industries, Inc.; Maiwada, et al., 2012; Kaewpradit, et al., 2013). Socio-cultural development is achieved when culture is used as an inspiration in artistic and creative pursuit.

The relationship between people and the planet – the socio-cultural and environmental aspects of handicrafts – can be seen in the use of natural resources, which is ingrained in the production of traditional handicrafts (Nedelcheva, et al., 2008; Kokko and Dillon, 2011; Glaveanu, 2014). According to Nedelcheva and Dogan (2008), there is an emerging market for products that are known as "organic" and "eco-" or "bio-friendly." These products will be significant in the revitalization of indigenous technologies. Handicrafts offer a way of consumption that is agreeable to the concepts of SD.

The relationship between the planet and profits – the environmental and economic aspects of SD – can be seen in tourism. Mustafa (2011) believed that handicrafts are viable souvenir items, which can serve as representations of indigenous people and local traditions. In addition, these souvenir items allow tourists to appreciate and experience the culture of a place and take that knowledge and experience back home. Moreover, according to WTO (as cited by Mustafa, 2011), these items encourage potential tourists to visit the places where they were made (Mustafa, 2011). This makes handicrafts a great potential source of income (Robinson, and Picard as cited by Mustafa 2011). UNESCO (2005) however, emphasized that tourism should be sustainable, i.e. it should not backfire and harm the culture and the environment.

Finally, the relationship between people and economics is seen in the concept of fair trade. As proposed by DeCarlo (2005), handicraft industries can serve as good models for social and economic change because it: 1.) Benefits employees (it provides opportunities even for the most disadvantaged, gives opportunities for the advancement of employees, and creates safe and healthy working conditions); 2.) Uses environmentally sustainable practices; 3.) Is transparent or open to public accountability; 4.) Builds long-term trade relations; 5.) Gives financial and technical assistance to producers. Because of these benefits, DeCarlo (2005) suggests that fair trade should be studied and placed in the curriculum. Amatucci, et al (2013) agreed that entrepreneurship in the curricula should stress both "economical and social motivations."

In the Philippines, entrepreneurship is already emphasized as a prelude to the HC. However,

integrating the socio-cultural aspects of SD may help enhance the entrepreneurial aspects of the HC. Inviting parents as resource speakers in the HC can revive traditional education, i.e. the practice of transferring knowledge from generation to generation (Nwazor, 2012). Moreover, handicraft fair trade products can also be part of the HC (De Carlo, 2005). The students can be taught to evaluate the motivations for setting up a handicraft enterprise and relate them to SD themes. Thus, it puts them in a better position to create enterprises that adhere to SD concepts.

PEDAGOGICAL TECHNIQUES IN ACHIEVING ESD THROUGH HC

Integrating SD themes in the HC should be supported by appropriate pedagogical techniques. According to Paraschivescu and Botez, 2011:

UNESCO argues that ESD should have the following characteristics: to be interdisciplinary and holistic based on values determined on critical thinking and problem solving, including several methods of teaching, and be oriented to local participation. UN is committed to disseminate ESD by promoting increased quality in teaching and learning by facilitating interaction, exchange and networking among stakeholders and countries new opportunities to incorporate ESD into their educational reforms.

Table 1 summarizes the pedagogical techniques that can be used in the HC to achieve ESD goals.

Table 1. Pedagogical Techniques to use in the HC to achieve ESD Goals

ESD GOALS according to UNESCO	Handicraft Concepts that can be integrated in the HC	Pedagogical Techniques
Self- sufficiency and quality of life	Developing sustainable products or enterprise	Systems-thinking based learning
Promotion of higher order thinking skills	Archeological and socio-cultural approach to craft learning; conscious consumption and production	Critical-thinking learning
Learner-Centered approach	Activities are problem-based in the context of the learner	Problem-based learning
Community Participation	Community issues as resource for design problems; community members as resource for knowledge and skill development through internships; community as venue for promoting and selling products; Design collaborations with community member	Problem-based learning Participatory/ Collaborative learning

Developing handicraft products that satisfy the concept of SD can address self-sufficiency and quality of life because the students can make products that will be useful in their daily life. The soft and hard skills that they will learn from making actual products can also prepare them for their future careers. Part of the HC could also be a practicum of setting up a sustainable enterprise. This learning opportunity reflects systems- thinking based learning (Tilbury, 2011) because it aims to consider all the aspects of SD when developing handicraft products or enterprises.

The promotion of higher order thinking skills can be done through critical- thinking learning (Tilbury, 2011 and Pavlova 2012). This type of learning encourages reflection and challenging one's perspective by being exposed to other points of view. The archeological approach to learning crafts proposed by Bamforth and Finlay (2007) entails studying antiquated crafts and analyzing the maker's skills in crafting and problem solving. This could also be contextualized to the maker's society. In relation to this, a socio-cultural approach to craft making can also be integrated in the HC by studying how handicraft products and production in the students' own culture differ from those of other cultures. Another way to foster critical-thinking learning is by discussing conscious consumption and production of handicrafts, which could translate to other consumer products. All these concepts develop critical thinking while integrating SD ideas.

A learner-centered teaching approach can be attained through problem-based learning, which is focused on solving real life problems (Tillbury, 2011). Each handicraft project or lesson should be based on the social-context of the students. This entails understanding the SD issues that surrounds the students and finding ways for the HC to help answer these issues.

Community issues can be used as design problems for handicraft projects. Participatory or collaborative learning, which highlights working together in resolving an issue, can also be used in engaging community participation (Tilbury, 2011). This could be done through internships where local craft experts or business owners are tapped as resources for knowledge and skill development, where the community is a venue for promoting and selling products (this could be provided by the local government) and where design collaboration with community members is undertaken (not necessarily craftsmen but people who work on SD concerns). Collaboration with computer science classes can be set up to arouse the students' interest in handicraft. On the other hand, collaboration with social studies classes can help students discover their indigenous technology.

RECOMMENDATIONS FOR IMPLEMENTING THE PROPOSED FRAMEWORK

Reorienting the HC

To make use of this framework, the author agrees with UNESCO that there is a need to re-orient the curriculum. For the HC, the author suggests the following:

1. Include product design to enhance critical and creative skills. Make designing relevant by addressing SD issues in the community and integrating computer classes in the design process
2. Use materials that are locally abundant. Relate use of materials to environmental protection and management as well as climate change and disaster risk management
3. Engage the community in handicraft activities for ESD through design collaborations, internships and product sales
4. Include lessons on sustainable consumption and production

Enabling handicraft teachers to promote SD

To successfully implement the curriculum, the author believes that handicraft teachers should first embrace and be personally invested in the concepts of SD and ESD. Caragay (2010) found that handicraft teachers who were more interested in what they were doing were able to make better projects for their students. Similarly, SD and ESD concepts can also benefit teachers' teaching and

philosophy. Thus, it is also important that SD's concepts be inculcated in a school's culture and philosophy so that it can fully commit to the idea of ESD (Macfarlane and Ogazon, 2011).

Since the interpretations of ESD vary from place to place, there is also a need to contextualize the framework to make it "locally relevant (UNESCO, 2012)." This means that the HC may be distinct for each community and locality. To contextualize ESD, teachers should be socially aware, especially about SD issues (Rauch and Regina Steiner, 2013) in the community that could be addressed in the HC. Contextual awareness and local involvement can also make teachers be more invested in SD (Pavlova, 2012).

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The paper presented how ESD principles easily fit in the handicraft concepts. The multi-disciplinary nature of ESD (UNESCO) helped in seeing that HC is not limited to vocational and entrepreneurial applications. This is significant because, As Abraham, et al. (2012), in the case of Nigeria, put it:

A curriculum development geared towards "acquiring certificate and degrees" rather than "equipping the citizens to be nation builders" (Anyanwu, 2008:40) does not represent optimal preference to launch the nation on the fast lane of socio-economic prosperity. Moving education towards skill acquisition technologies where recipients would acquire some skills relevant for community life and enable solve the economic problems of contemporary Nigeria (Fafunwa, 2004; Fafunwa, 2008; Anyanwu, 2008) is imperative.

They added that:

Adopting an education development envisioned at achieving technological progress enough to support economic growth and poverty reduction requires the development of an indigenous technical culture. Operation of handicraft element in the curriculum is a drastic move towards achievement of indigenous skill development for solution to socio-economic problems peculiar to Nigeria. A school system succeeds when its programmes and instructions are closely related and viable to the society. (Abraham, et al., 2012)

Given that the nature of handicrafts and SD are sensitive to local context (UNESCO, 2012), the author therefore recommends further research in different communities to explore ways of appropriately integrating ESD to the HC. Community-specific examples on applying the framework need to be investigated as well.

Through the interconnection of ESD and handicrafts, the crafted framework gives value to handicraft practice as a viable approach for individuals and communities moving towards SD. The HC also contributes to change in human behavior and habits, which are needed to achieve SD (Zenelaj, 2013).

The author calls for institutional support to help promote this framework. In her study, Caragay (2012), she found very few public schools that offered handicrafts specialization classes. She attributed this to the lack of institutional support for the handicraft industry. Government support for the handicraft industry is critical in motivating schools to develop their handicraft classes.

Moreover, the Department of Education can initiate policies concerning the integration of ESD to

the HC. According to Segovia and Galang (2002) and the UNESCO (2011), the Philippines have initiated a number of ESD-related projects, but those were focused on environmental education. It is time to consider in particular, the potential of the HC for ESD integration.

REFERENCES

Abraham, N. M. (2012). Operation of the Handicraft Element of Primary and Junior Secondary Curriculum: Implications for Technological Advancement in Nigeria. *World Journal of Education*, 2-3: 94-99.

Alonso, A. D., et al. The Challenge of Preserving Rural Industries and Traditions in Ultraperipheral Europe: Evidence from the Canary Islands. *Journal of Rural and Community Development*, 4-2: 1-18.

Amatucci, F. M., et al. (2013). Sustainability: A Paradigmatic Shift in Entrepreneurship Education. *New England Journal of Entrepreneurship*, 16-1: 7-18.

Arribas, L. A. (2009). *Compendium to Handicrafts*. Unpublished manuscript.

Bamforth, D. B. and Finlay, N. (2008). Introduction: Archaeological Approaches to Lithic Production Skill and Craft Learning. *Journal of Archeological Method Theory*, 15: 1-27.

Bratich, J. Z. and Brush, H.M. (2011). Fabricating Activism: Craft-Work, Popular Culture, Gender. *Utopian Studies*, 22-. 2: 234-260.

Caragay, K. T. (2012). *Teachers practices in integrating education for sustainable development in the handicraft curriculum*. Unpublished manuscript.

DeCarlo, J. (2005). Fair Trade: Crafts, Commodities, and Curriculum. *International Educator*, 14-3: 4-6.

Dresner S. (2002). *The Principles of Sustainability*. London, UK: Earthscan Publications Ltd.

Elliott, J. A. (2006). *An Introduction to Sustainable Development* (3rd Ed.) New York, NY: Routledge.

Firth, R. and Smith, M. (2013). As the UN Decade of Education for Sustainable Development comes to an end: what has it achieved and what are the ways forward? (Editorial). *The Curriculum Journal*, 24-2: 169-180.

Flint, R. (2010). Symbolisms of Sustainability: Means of Operationalizing the Concept. *Synesis: A Journal of Science, Technology, Ethics, and Policy*, 1: 25-37.

Garber, E. (2013). Craft as Activism. *The Journal of Social Theory in Art Education*, 33, 53-66.

Ghouse, S. M. (2012). Indian Handicrafts Industry: Problems and Strategies. *International Journal of Management Research and Review*, 2-7: 1183-1199.

Glaveanu, V. (2014). The function of ornaments: A cultural psychological exploration. *Culture Psychology*, 20-1: 82-101.

Harris, E. (2008). The meanings of craft to an occupational therapist. *Australian Occupational Therapy Journal*, 55: 133- 142.

Iakovleva, T., et al. (2012). Entrepreneurship and Sustainability in Nature-based Tourism: The Role of Institutional Profiles in Northern Norway and Northwest Russia. *Journal of Small Business and Entrepreneurship*, 25-4: 433-450,533

Kaewpradit, K., et al. (2013). Krajood: Creative Economics Development in Communities through Indigenous Handicraft of Southern Thailand. *International Journal of Academic Research in Business and Social Sciences*, 3-9: 707-717.

Kokko, S. and Dillon, P. (2011). Crafts and craft education as expressions of cultural heritage: individual experiences and collective values among an international group of women university students. *International Journal of Technological Design Education*, 21: 487- 503.

Linderman, EW and Linderman, MM. (1984). *Arts and Craft in Classroom* (2nd Edition). USA: Macmillan Publishing Corporation.

Maidment, J. and Macfarlane, S. (2011). Crafting Communities: Promoting Inclusion, Empowerment, and Learning between Older Women. *Australian Social Work*, 64-3: 283-298.

Maiwada, S., et al. (2012). Cultural Industries and Wealth Creation: The Case of Traditional Textile Industry in Nigeria. *American International Journal of Contemporary Research*, 2-5: 159-165.

Mason, R., et al. (2000). Craft in Lower Secondary Schools in England and Japan: A Comparative Study. *Comparative Education*, 36-4: 397-416.

McFarlane, D. A. and Ogazon, A. G. (2011). The Challenges of Sustainability Education. *Journal of Multidisciplinary Research*: 3-3: 81- 107.

Mustafa, M. (2011). Potential of Sustaining Handicrafts as a Tourism Product in Jordan. *International Journal of Business and Social Science*, 2-2, 145-152.

Nedelcheva, et al. (2011). The Traditional Use of Plants for Handicrafts in Southeastern Europe. *Human Ecology*, 39: 813-828.

Nwazor, J. C. (2012). Capacity Building, Entrepreneurship and Sustainable Development. *Journal of Emerging Trends in Educational Research and Policy Studies*. 3-1: 51-54.

Paraschivescu, V. and Botez N. (2011). Education for Sustainable Development. *Economy Transdisciplinarity Cognition*, 15-2: 132- 140.

Pavlova, M. (2012). Teaching and learning for sustainable development: ESD research in technology education. *International Journal of Technology Design Education*. 23: 733- 748.

PAHEA Research Committee. (1994). *History of Home Economics Education in the Philippines*. Philippines: Hiyas Press, Inc.

Philippine Chamber of Handicraft Industry, Inc. (undated). *The Philippine Handicraft Industry in Perspective* [PowerPoint Slides]. Retrieved from www.issi.upd.edu.ph/asean/DennisOrlina.pdf, February 10, 2015.

Pöllänen, S. (2009). Craft as Context in Therapeutic Change. *The Indian Journal of Occupational Therapy*, 16-2: 43-47.

Pöllänen, S. (2013). The meaning of craft: Craft makers' descriptions of craft as an occupation. *Scandinavian Journal of Occupational Therapy*, 20: 217- 227.

Rauch, F. and Steiner, R. (2013). Competences for Education for Sustainable Development in Teacher Education. *CEPS Journal*, 3-1: 10-24.

Russu, A-A. (2011). Traditional Textile Art between Sustainability and Economic Growth. *Review of Applied Socio- Economic Research*, 2, 160- 166.

Ryan, A. and Tilbury, D. (2013). Uncharted waters: voyages for Education for Sustainable Development in the higher education curriculum. *The Curriculum Journal*: 24-2: 272- 294.

Salau, A. (2012). Reinventing Nigerian Education for Sustainable Youth Empowerment through Entrepreneurial Education. *Academic Research International*, 2-2: 358- 363.

Segovia, V. M. and Galang, A.P. (2002). Sustainable Development in Higher Education in the Philippines: The Case of Miriam College. *International Journal of Sustainability in Higher Education*, 3-3: 288-296.

Shivers, J. (1974). *Recreational Crafts: Programming and Instruction Techniques*. New York: McGraw-Hill.

Širka, J. (2012). Evaluation of the Folk Arts Craft Programme for the University of the Third Age. *Professional Journal on Education*.

Solomon, E. (2013). Craftivism and the Professional Amateur: A Literature Review on Do It Yourself Activist Craft Culture. *PsychNology Journal*, 11-1: 11-20.

The National Environmental Education Action Plan For Sustainable Development (2005-2014). Retrieved from emb.gov.ph/eeid/NEEAP%20proceedings/2009/NEEAP_updated.doc, November 2, 2014.

United Nations Educational, Scientific and Cultural Organization. (2005a). *UNESCO and Sustainable Development*. France: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2005b). *Contributing to a More Sustainable Future: Quality Education, Life Skills, and Education for Sustainable Development*. France: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2005c). *United Nations Decade of Education for Sustainable Development (2005- 2014): Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainable Development*. France: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2005d). *United Nations Decade of Education for Sustainable Development (2005- 2014): International Implementation Scheme*. France: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2006). *United Nations Decade of Education for Sustainable Development (2005- 2014): Education for Sustainable Development Toolkit*. France: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2007). *Asia-Pacific Guidelines for the Development of National ESD Indicators*. Bangkok: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2009). *United Nations Decade of Education for Sustainable Development (2005- 2014): Reviews of Context and Structures for Educational for Sustainable Development*. France: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2011). *Country Report on Education for Sustainable Development: Centered on Five Cluster Countries of UNESCO Office, Jakarta*. Jakarta: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2012a). *Education for Sustainable Development Sourcebook*. France: UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2012b). *Shaping the Education of Tomorrow: 2012 Report on the UN Decade of Education for Sustainable Development*. France: UNESCO.

Zenelaj, E. (2013). Education For Sustainable Development. *European Journal of Sustainable Development*, 2-4: 227- 232.