Integration of Agribusiness Theory and Practice for Sustainable Education Curriculum

Osuardo A. Pabatang Jr., Antonio M. Merca, and Adelfa C. Silor

Abstract— This study aimed to analyze how the integration of agribusiness theory and practice can help alleviate poverty through education curriculum. Education is the only way to help the people widen their knowledge and skills about the things needed in order to survive. Content knowledge about the importance of agribusiness through learning the theories and principles then put these into practice through application, is very important for the people in generating income. Hence, we come up with this phenomenological qualitative study about the integration of agribusiness concept in the curriculum in order for the learners to enhance their metacognitive awareness about the importance of agribusiness entrepreneurial skill to alleviate poverty. The method used in this study was phenomenological qualitative design using in-depth interview and essay writing in gathering the data. Pre-service education students of Mindanao State University-Iligan Institute of Technology enrolled during the first semester 2015-2016 served as the participants of this study. Purposive sampling procedure in choosing the participants was being used during the in-depth interview and essay writing. Discourse and thematic analysis was used in determining the emerged themes based from the answers of the participants through in-depth interview and essay writing. From the thirty participants, findings reveal that there is really a need to have agribusiness literacy in order to widen the knowledge and skills of the people about how to be successful in agribusiness entrepreneurs. Thus, through integrating the concept of agribusiness in the lessons, learners would be able to understand and internalize the importance of agribusiness entrepreneur. The results imply that teacher education curriculum needs to have the integration of agricultural literacy and entrepreneurship skill for sustainability.

Keywords— Curriculum, Integration of Agribusiness Theory and Practice, Sustainable

I. INTRODUCTION

Education is the agent of change. The curriculum design must fit to the needs of the community. Whatever is the problem arises in the community, education takes place. Thus, curriculum design has great role in solving the needs of the people in a society. So, in producing quality 21st century graduates, their courses must be responsive to the needs of the society like alleviating poverty which is the problem through the world. Here in the Philippines, it has been observed that poverty is one of the problem that people are experiencing.

Osuardo A. Pabatang, faculty, is with the Mindanao State University-Iligan Institute of Technology, Iligan City, Philippines,

Antonio M. Merca, Assistant Professor, is with the Mindanao State University-Iligan Institute of Technology, Iligan City, Philippines,

Adelfa C. Silor, Professor, is with the Mindanao State University, Iligan Institute of Technology, Iligan City, Philippines,

Hence, this must be answered through education. Educating the mind sets of the people in a certain society would be a great of solving poverty. There must be a lesson for cultural changes to improve the cognitive level of the people. This is the reason why we are conducting this qualitative research about "integration of agribusiness theory and practice for sustainable education curriculum. It is a hope that through integrating agriculture concepts in the curriculum, then the learners will apply all theories and concepts they learned from school, into practice to their community. So, integrating the concepts about agribusiness can also sustain the curriculum because it can help alleviate poverty.

II. LITERATURE REVIEW

As media representatives at the 2002 UN World Summit of Sustainable Development highlighted, sustainable development can be difficult to explain in concrete terms, and audiences cannot relate to the issues and challenges of sustainable development unless these are profiled through people they identify with.2 Education at all levels can help move the concept beyond UN terminology and into practice, but the educational community has yet to embrace the broader concept of sustainable development as it has incorporated environmental stewardship and other similar concepts.[1]

Likewise, in the study of Dale and Newman, they distinguished sustainable development education from environmental education and stress the importance of problem-based interdisciplinary learning to sustainable development education. A range of published works relating to sustainable development education are critiqued, an introduction to complexity theory is given and related to sustainable development education, and a case study is provided to demonstrate an example of incorporating sustainability into course delivery and to demonstrate problem-based interdisciplinary learning.[2]

Moreover, technology education is a well-established field of knowledge whose applications have many ramifications. For example, technology education may be used as a tool in meeting the challenges of sustainable development. However, the usefulness of technology education to the sustainability debate as a whole and to education for sustainable development in particular, has largely been overlooked in the past. Indeed, there is a paucity of academic studies which examine the contribution technology education may provide to education for sustainable development.[3]

Furthermore, several principles of sustainable development are embedded in India's education policy. It is perhaps the

only country where the highest court has mandated environmental education at all levels of formal education, which includes a compulsory undergraduate course. However, the challenges of implementing this requirement effectively are hampered by lack of inter-disciplinary competence among staff and students, and traditional methods of assessment in HE.[4]

In addition, education has also played a major role. The article, based on a review of international and national research literatures, analyses how far China, India, Kenya and Sri Lanka have managed to develop their own forms of successful engagement with the global economy and what part education policy has played. In the second part we relate our concept of successful globalization to the parallel discourses of sustainable development and education for sustainable development and reflect on what our notion of 'successful globalization' can borrow from and lend to these literatures.[5]

In like manner, in the study of Yuan and Zuo, the results showed that university students were generally aware of sustainability issues. The top priorities for Higher Education for Sustainable Development from the students' perceptions are generally environmentally oriented. However, students highlighted the importance of social aspects of sustainability by ranking security within the campus and providing access to disability people two of top 10 factors of Higher Education for Sustainable Development. Similarly, students perceived that students opportunities and conducting sustainability related researches as critical to Higher Education for Sustainable Development goal. On the contrary, sustainability curricula, the faculty and staff development, and rewards are perceived by students as less important compared to other factors. These research findings provide a useful reference to both the top management and educational authorities for their decision-making processes to further develop Higher Education for Sustainable Development.[6]

In the study of Arbuthnott , the results of the reviewed research indicate that attitude-behavior correlations are mediated by several factors, including contextual conditions such as inconvenience and personal factors such as habits. Practical implications – The implications of these findings are that ESD programs should specifically address factors that mediate the attitude-behavior relationship, including contextual changes and the development of personal management plans. Examples for each type of change are suggested. Originality/value – The implications of these findings for ESD programs have not previously been highlighted. Specifically, to achieve sustainable development requires attention to these mediating factors as well as to knowledge generation and attitude change. Thus, the value of this paper is to encourage ESD developers to expand their programs to encourage contextual change and personal behavior management plans.[7]

Certainly, in study of Lozano et al., they emphasized the paper on declarations and initiatives for Education for Sustainable Development which is complemented by a paper on inter-linking the declarations to the university's

commitment and policies. Two papers explore campus operations and greenhouse gases, whilst three papers focus on curricula for sustainable development. Then two papers are included, which address multi-stakeholder regional collaboration, via linking the university to small and medium size enterprises through sustainable development initiatives. They are complemented with new perspectives on attitudes and perceptions of students to environmental and sustainability issues. The final two papers focus on transdisciplinary research and on a new metaphor designed to help faculty, students and societal members work is harmony with our ecosystem. Collectively, these articles provide an encouraging, holistic and trans-disciplinary perspective on higher education for sustainable development via articles that provide critical reflections on methodological perspectives where 'the sciences meet the arts'. The articles were selected to encourage educators, globally to engage in sustainable development initiatives within and outside their universities.[8]

Furthermore, Education for sustainable development (ESD) is playing an increasing role in the higher education curriculum. However, little previous research exists on lecturers' understanding of and attitudes towards sustainable development. The findings of this survey reveal a wide range of understandings of sustainable development within this institution—and a high level of critical debate about the concept itself. In common with some previous research, there are indications that many lecturers find the language of ESD inaccessible. Despite this, a fairly high level of support for sustainable development is expressed across all discipline areas and a range of suggestions about appropriate pedagogies for ESD are raised. However, the extent to which this enthusiasm can be translated into practical changes to the higher education curriculum remains less certain.[9]

Accordingly, the article of Jóhannesson et al., explores how the Icelandic public school curriculum for early childhood, compulsory and upper secondary school deals with education for sustainable development. As the curriculum does not often mention the term sustainability, a key with which to investigate signs of education for sustainable development in the three curricula was created. The key encourages a holistic view of sustainable development, where economic, environmental and social factors are not treated as separate entities. It was designed to reflect the goals of the United Nations Decade of Education for Sustainable Development (2005-2014) with research on environmental education and education for sustainable development in mind. The key has seven characteristics: values, opinions and emotions about nature and environment; knowledge contributing to a sensible use of nature; welfare and public health; democracy, participation, and action competence; equality and multicultural issues; global awareness; and finally, economic development and future prospects. Using the key, a variety of signs and indicators that provide a space for teachers and schools to deal with issues of sustainable development were identified.[10]

From the thematic analysis of the different literature review articles, we have semantically formulated a concept that sustainable curriculum is very important in the Higher Education Institutions particularly in the Philippines. Since poverty is one of the problems, it is then a hope that integration of agribusiness theory and practice is needed to be given emphasis in the 21st century education curriculum for sustainability.

III. METHODS

The method used in this study was phenomenological qualitative design using in-depth interview and essay writing in gathering the data. Pre-service education students of Mindanao State University-Iligan Institute of Technology enrolled during the first semester 2015-2016 served as the participants of this study. Purposive sampling procedure in choosing the participants was being used during the in-depth interview and essay writing. Discourse and thematic analysis was used in determining the emerged themes based from the answers of the participants through in-depth interview and essay writing.

IV. FINDINGS AND ANALYSIS

Findings reveal that there is really a need to have agribusiness literacy in order to widen the knowledge and skills of the people about how to be successful in agribusiness entrepreneurs. Thus, through integrating the concept of agribusiness in the lessons, learners would be able to understand and internalize the importance of agribusiness entrepreneur. The results imply that teacher education curriculum needs to have the integration of agricultural literacy and entrepreneurship skill for sustainability.

V. CONCLUSION

Based from the phenomenological qualitative research analysis, we have found out that theory and practice in learning agribusiness is needed as part of the integration across curriculum in order for the people in a society to have content knowledge about how agribusiness generates income to help poverty alleviation.

REFERENCES

[1] Venkataraman, Bhawani, Education for Sustainable Development:Sustainable Development, 2009, Vol 51, Issue, Pages 8-10.

[2] A. Dale & L. Newman, Sustainable development, education and literacy: International Journal of Sustainability in Higher Education, 2005, Vol 6,Issue 4,Pages 351-362.
http://dx.doi.org/10.1108/14676370510623847

[3] W. Filho, E. Manolas & P. Pace , Education for sustainable development: Current discourses and practices and their relevance to technology education: International Journal of Technology and Design Education,2009,Vol 19,Issue 2,Pages: 149-165.
http://dx.doi.org/10.1007/s10798-008-9079-z

[4] K. Chhokar,, Higher Education and Curriculum Innovation for Sustainable Development in India: International Journal of Sustainability in Higher Education, 2010, Vol . 11, Issue 2, Pages 141-152.

[5] A. Little & A. Green , Successful globalization, education and sustainable development International Journal of Educational Development, 2009, Vol. 29,Issue 2, Pages 166-174.
http://dx.doi.org/10.1016/j.ijedudev.2008.09.011

[6] X. Yuan, & J. Zuo, A critical assessment of the Higher Education for Sustainable Development from students' perspectives - A Chinese study: Journal of Cleaner Production, 2013, Vol. 48, pages 108-115.
http://dx.doi.org/10.1016/j.jclepro.2012.10.041

[7] K. Arbuthnott, Education for sustainable development beyond attitude change: International Journal of Sustainability in Higher Education, 2009, Vol 10,Issue 2,Pages 152-163.
http://dx.doi.org/10.1108/14676370910945954

[8] R. Lozano, F. Lozano, K. Mulder, D.Huisingh & T. Waas, Advancing Higher Education for Sustainable Development: International insights and critical reflections: Journal of Cleaner Production, 2013, Vol. 48, pages 3-9.
http://dx.doi.org/10.1016/j.jclepro.2013.03.034

[9] D.R.E. Cotton, M.F. Warren, O. Maiboroda, & I. Bailey Sustainable development, higher education and pedagogy: a study of lecturers' beliefs and attitudes: Environmental Education Research, 2007, Vol 13, Issue 5, Pages 579-597.
http://dx.doi.org/10.1080/13504620701659061

[10] I. Jóhannesson, K. Norðdahl, G. Óskarsdóttir, A. Pálsdóttir, & B. Pétursdóttir Curriculum analysis and education for sustainable development in Iceland: Environmental Education Research, 2011, Vol 17, Issue July 2014, Pages 375-391.