

Competence in Education for Sustainable Development and Graduates' Employability in Cameroon

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Abstract:- It is observed that graduates from universities in Cameroon have inadequate competence in major areas such as; system thinking, problem-solving, and critical thinking, making graduates be less skilled in long-life learning, such as learning to know, be, do, and living-together. Hence, graduates' competencies are contextually inefficient and observed to be inadequate for the local and global market, a reason for the massive unemployment of graduates. The purpose of this study was to examine the relationship between competence in education for sustainable development and graduates' employability. The study made use of a principal research question stated as; what competence in education for sustainable development can enhance graduates' employability? A descriptive approach was used for the study, and a sample of 126 graduates were obtained by purposive sampling technique. The result obtained from the analysis permits us to conclude that there is a strong and positive relationship between competence in education for sustainable development and the employability of graduates.

Keywords:- Competence in ESD; Learning to know; Learning to be; Learning to do; Learning to live together; employability of graduates.

I. INTRODUCTION

To prepare graduates for the job market, to cope with complex challenges, to act and achieve sustainable societies, the managers of universities need to rethink the mission of schools in order to train competencies which are contextually fit and relevant. Fadeeva, Z., & al., (2010). Opines that the integration of competence for sustainable development into education could be the first stepping-stone toward sustainable education. Competence for sustainable development exists in different settings or contexts. Several authors define competence as offering a complete set of knowledge, skills, values, ethics, and attitudes, necessary to ensure that students or graduates can cope with the complexity and uncertainty of this changing world.

Educational institutions have to play an important role in enabling people to live together in ways that contribute to sustainable development. It is observed that education often contributes to unsustainable living due to the lack of opportunities for learners or graduates to question their values, lifestyle, systems, and structures that model them using approaches and programmes, which often lead to unsustainable practices. Thus, educators must reorientate their

practices toward sustainable development (Wals, A. E., 2014).

The approaches used in education for sustainable development (ESD) to train students differ in every society, thus the development of a sustainable society is dependent on a continuous learning process. As such, educational approaches used in shaping students' competency should not only provide graduates with knowledge for employability but competence to take action for sustainable development. In Cameroon law, N° 98/004/1998 of 14 April lays guidelines for education. Most of the goals and objectives of the law tie in with ESD policies. However, in the tertiary, the laws and policies do not reflect sustainability practice. (Tambi, 2015, pp. 5-15).

Worldwide, societies generally expect educational systems to prepare graduates for future professional life and/or continuation of studies. Education systems have a socializing role. That is, they have to contribute positively to the development of graduates' long-life learning; responsibilities for their employability to help shape complex societies (Wals, A. E., 2014). In the context of Cameroon, a lot of effort is still yet to be made with regards to the development of graduates in long-life learning such as learning to know, be, do, and live together translated into education as system thinking skill, critical thinking skill, communicative skill, ethical skill and problem-solving skill. However, present educational managers and administrators are encountering many challenges in reorienting teaching programmes and profiles of students to ESD profiles, which is contextually relevant to society. The fear is that, if nothing is done, future managers of education will continue with the same poor planning, coordination, organization, assessment of quality models for the development of competency. Thus we will continue in the old system of producing certificate without competence for the economy and society, leading to continuous massive unemployment of graduates.

This is because the higher education system in Cameroon practices the traditional African model, where not almost all the students on full degree courses and programmes are connected to the labor market, and there is no involvement of the private sector in program selection and curriculum content. This model, initially designed to produce personnel for the civil service, no longer conforms to the economic needs in this era of shrinking public services, nor for international best practices (World Bank, 2013). Few graduates from traditional universities find employment within a year of their graduation and the overall

unemployment rate of university graduates is around 30%. Unemployment rates rise with qualifications, only 6.5% of unschooled young people are unemployed, compared with 30% of university graduates. Such figures put in question the validity of the 24 years of schooling bestowed upon graduates at universities.

II. STATEMENT OF THE PROBLEM

Young people make up the workforce of a country, but they are still experiencing a much higher rate of unemployment than adults. From a lot of research, it is observed that most students after graduation are less secure due to poor school-to-work transition, lower quality jobs, and greater market inequalities than adults do. Statistics from the human development fund show that the majority of Cameroonians are young people between the ages of 15 to 30, and 15% of these young people are unemployed. Students entering universities in Cameroon are willing to abandon studies because of the notion that the competency they will acquire will render them unemployed, that is, graduates with no qualifications which are looked upon as a burden by many families and society. Furthermore, it is observed that graduates have inadequate knowledge to value norms for common prosperity, sustainability and well-being, rendering many graduates frustrated with the competency acquired at the university.

Contrasting the competency acquired at state universities in Cameroon with that of other universities shows that the competency acquired by graduates from external universities mandates them with abilities and skills to face economic and societal challenges with ease, which ought to have been the same case with graduates from the state universities. It is noted that whenever graduates from these universities are faced with economic, environmental and societal challenges such as the provision of solutions for portable water, clean sources of energy, resolution of inter-regional and national crises, almost all the graduates are challenged.

It is therefore inappropriate for universities not to reorientate their curriculum to address the challenges faced by society. Some of the challenges the universities are expected to address arise from the following sphere: environment, society and the economic sphere. Generally, African universities face many challenges in the areas of sustainability due to the competency training. Hence, most of the competencies developed are non-productive and non-innovative. Thus, the competencies developed do not sustain the African economy and societies like that of Cameroon. However, fluctuations in the economy and environment lay claims on the universities due to global changes to develop graduates' competence that are contextually fit and relevant. The managers of the universities lay hold on cultures, values with high levels of inequality, and no equity in their processes of governance and recruitment of staff.

Thereby making graduates be less skilled in system thinking, critical thinking, problem-solving and the concept of learning to know, to be, to do, and to live together. Hence, graduates are unable to plan and organize for the implementation of sustainability decisions and employability.

III. RESEARCH QUESTION

A. *What competence in ESD influences the employability of graduates?*

B. *Specific Research Question*

To what extent does learning to know influences employability of graduates?

To what extent does learning to be influences employability of graduates?

To what extent does learning to do influences employability of graduates?

To what extent does learning to live together influences employability of graduates?

C. *Research objective*

To analyse the relationship between competence in ESD and employability

D. *Specific Research objective*

- To examine the link between learning to know and employability of graduates.
- To determine the relationship between learning to be and employability of graduates.
- To analyze the relationship between learning to do and employability of graduates.
- To examine the relationship between learning to live together and employability of graduates

IV. METHODOLOGY

The descriptive method was used for this research to describe data and the characteristics of the population under study. 126 respondents were selected by purposeful sampling technique.

V. RESULT OF THE STUDY

The result of this article is based on the item-to-item analysis of one of the research questions. For this article, we make use of the first research question, stated as: To what extent does learning to know influences the employability of graduates.

➤ *I1: Learning to know influence employability.*

Table 1: Learning to know

No	Item	Modalities	Frequency	Percentage
1	Learning to know influences employability	Strongly Agree	51	40.5
		Agree	42	33.3
		Disagree	8	6.3
		Strongly Disagree	25	19.8

From the table above, it is observed that 51 respondents strongly agree with giving a percentage of 40.5% and 42 respondents agree with giving a percentage of 33.3 %, whereas 8 respondents disagree with giving a percentage of 6.3%. 25 strongly disagree with giving a percentage of 19.8%. Most graduates confirm that learning to master the

challenges or knowing the challenges of society influences employability. When students learn to know, it gives them the ability to be flexible, hence developing their skills or their ability to learn, unlearn and relearn. This helps to adapt them to different situations in the professional milieu.

➤ *I2: Learning to know socio political and ecological system enhances employability.*

Table 2: Learning to know socio political and ecological system

No	Item	Modalities	Frequency	Percentage
2	Learning to know socio political and ecological system enhances employability.	Strongly Agree	24	19.0
		Agree	20	15.9
		Disagree	29	23.0
		Strongly Disagree	53	42.1

From the table above, 24 respondents strongly agree that mastering operational processes of a system influences employability giving a percentage of 19.0% and 20 agreeing giving a percentage of 15.9% with 29 disagreeing giving a percentage of 23.0% whereas 53 strongly disagree giving a percentage of 42.1%. Mastering operational processes of a system greatly influences employability because, the society function as system with process. Many enterprises, and organizations function as a system, understanding their mode of functioning, will enable students to develop systemic thinking. Learning to know socio-political and ecological

systems, influences the employability of graduates, giving a percentage of 19.0%, whereas 20 respondents agree, giving a percentage of 15.9%, and 29 disagree, giving a percentage of 23%. 53 respondents strongly disagree giving a percentage of 42.1%. Learning to know political systems influences employability because the political system designs the policies that result in the creation of opportunities. If graduates can learn to know how to influence the political system positively with their competence and skills, then it is a sure fact that they will be able to influence the rate of employability.

➤ *I3: Understanding organizational structures influences employability*

Table 3: Understanding organizational structures

Nº	Item	Modalities	Frequency	Percentage
3	Understanding organizational structures influences employability	Strongly Agree	28	22.2
		Agree	26	20.6
		Disagree	42	33.3
		Strongly Disagree	30	23.8

From the table above, 28 respondents strongly agree with giving a percentage of 22.2%, whereas 26 agree with a percentage of 20.6% and 42 disagree with giving a percentage of 33.3% and 30 strongly disagree with giving 23.8 %. Majority of the graduates disagree, showing that they have inadequate knowledge about organizational structures, which

are the main employers. The outcome of learning is for employability and creativity. Learning to know organizational structures will permit graduates to collaborate with the structures through volunteerism or work-study programs, which is a means by which graduates can exhibit their potential or skills.

➤ 14: Mastering the operational processes of a system influences employability.

Table 4: Mastering operational processes

No	Item	Modalities	Frequency	Percentage
4	Mastering the operational processes of a system influence employability	Strongly Agree	42	33.3
		Agree	39	31.0
		Disagree	22	17.5
		Strongly Disagree	23	18.3

➤ 15: Planning for the future influences employability.

Table 5: Planning for the future

No	Item	Modalities	Frequency	Percentage
5	Planning for the future influences employability	Strongly Agree	36	28.6
		Agree	49	38.9
		Disagree	21	16.7
		Strongly Disagree	20	15.9

From the table above, 36 respondents strongly agree that planning for the future influences employability, giving a percentage of 28.6%. 49 respondents agree, giving a percentage of 38.9%, whereas 21 disagree, giving a

percentage of 16.7%, 20 strongly disagree, giving a percentage of 15.9%. From the table, it shows that for graduates to be recommended or employed they will need competence that permits them to plan for the future.

➤ 16: Reserving resources for the future (sustainability) enhances employability.

Table 6: Reserving resources for the future (Sustainability)

No	Item	Modalities	Frequency	Percentage
6	Reserving resources for the future (sustainability) enhances employability.	Strongly Agree	30	23.8
		Agree	22	17.5
		Disagree	33	26.2
		Strongly Disagree	41	32.5

From the table above, 30 respondents strongly agree with giving a percentage of 23.8% and 22 agree with giving a percentage of 17.5%, whereas 33 disagree with giving a percentage of 26.2% and 41 respondents strongly disagree, giving a percentage of 32.5%. From the table, it shows that

the majority of graduates do not have competence in sustainable management, which greatly promotes sustainability, implying creating a domain or basis for employability.

➤ 17: Learning to be innovative influences employability

Table 7: Learning to be innovative

No	Item	Modalities	Frequency	Percentage
7	Learning to be innovative influence employability	Strongly Agree	35	27.8
		Agree	33	26.2
		Disagree	31	24.6
		Strongly Disagree	27	21.4

From the table above, 35 respondents strongly agree that learning to be innovative influences employability, giving a percentage of 27.8% and 33 respondents agree, giving a percentage of 26.2% with 32 disagreeing, giving a percentage of 24.6%. 27 strongly agree with a percentage of

22.4%. Most organization look for graduates who have skills in innovation. Due to rapid changes in society, many enterprises are switching from their habitual consumption patterns to a green economy. Thus, graduates must be innovative.

➤ *I8: Learning to resolve environmental crisis influences employability.*

Table 8: Learning to resolve environmental crisis

Nº	Item	Modalities	Frequency	Percentage
8	Learning to resolve environmental crisis influences employability.	Strongly Agree	30	23.8
		Agree	33	26.2
		Disagree	43	34.1
		Strongly Disagree	19	15.1

The table above shows that 30 respondents strongly agree that learning to resolve environmental crises influences employability, giving a percentage of 23.8% and 33 respondents agreed, giving 26.2%. 43 respondents disagree, giving 34.1% and 19 respondents strongly disagree, giving 15.1%.

Crisis begins from the smallest unit of the society, which is the family, to mega units such as enterprises, political systems, ecosystems or ecological systems that are all part of the super mega units, like society itself, and the environment. Developing skills in graduates to resolve crises influences employability greatly.

➤ *I9: Learning to know developmental projects influence employability.*

Table 9: Learning to know developmental projects

No	Item	Modalities	Frequency	Percentage
9	Learning to know developmental projects influence employability	Strongly Agree	21	16.7
		Agree	38	30.2
		Disagree	22	17.5
		Strongly Disagree	45	35.7

In the table above, 21 respondents strongly agree, giving a percentage of 16.7%, and 38 agree, giving a percentage of 30.2, while 22 disagree, giving a percentage of 17.5 %, and 45 respondents strongly disagree, giving a percentage of 35.7%.

Education is at the center of development. Talking of development without developmental projects makes no sense. It shows that the majority of the graduates have no skills in project development for innovation.

➤ *I10: Inclusive learning enhances employability.*

Table 10: Inclusive learning

No	Item	Modalities	Frequency	Percentage
10	Inclusive learning enhances employability	Strongly Agree	40	31.7
		Agree		
		Agree	32	25.4
		Disagree	22	17.5
		Strongly Disagree	32	25.4
		Disagree		

In the table above, 40 respondents strongly agree that inclusive learning enhances employability, giving a percentage of 31.7% and 32 agree, giving a percentage of 25.4, whereas 32 of the respondents 25.4 %. Learning without gender discrimination and creating space for the handicapped enhances the employability of graduates.

VI. DISCUSSION OF RESULTS

From the results above, it can be seen that learning to know has a significant influence on the employability of graduates. When students learn to understand, they become masters of learning and thus they develop the ability to learn, to unlearn and to re-learn. These abilities, which are researched by employers at local, regional and international levels, are attributes of sustainability competence, which allows flexibility and adaptability in businesses. Employers also hire graduates who demonstrate the willingness, ability or capacity to learn and to re-learn.

Social learning theory help us to understand how graduates receive information. It argues that students are not passive recipients of information. Students and/or graduates learn in three stages. The first stage involves attention; the second stage involves retention, followed by reproduction and motivation. The author shows that: "For graduates to learn something, they have to pay attention to the characteristics of the behavior being modelled. Therefore, the development of competence in ESD requires graduates to have a mastery of knowledge (Bandura, 1971).

Learning to know socio-political and ecological systems enable graduates to master the system inputs, processes and outputs, which at each stage contain tacit knowledge or information that needed to train systemic skills. According to Bandura (1971), graduates easily retain (retention stage) and acquire the information when there are images, pictures and graphic. The author, argue that graduates need to be pragmatic that is learning by doing which can only be done through internships, study work programs and seminars in organizations and companies. Many employers are reluctant to employ the graduates. From John Dewey's theory, we further that accessing knowledge directly from social, economic and environmental structures or organizations will develop the ability and skills of graduates to identify innovative projects for future sustainability of enterprises or organizations, thus giving them more advantages to be employ. From the analysis, it shows that there is a positive significant relationship between learning to do and employability. Graduates must have practical experience in the laboratories in school in other to cope with realities of the workplace. Partial experience will only increase the rate of unemployment of graduates. From Dewey's educational point of view, graduates must interact with the environment to develop critical thinking skills through rational application of cognitive knowledge. According to Dewey learning is centered toward students and or graduates, thus for graduates to be successfully being employed and maintain their employment they will need proper engagement and participation in seminar, workshop and internships in the various organizational structures, developing these competences in ESD greatly and significantly influence their employability.

Dewey further use a student-center approach, and concluded that students should be allow to explore their environment because traditionally, the teacher delivers lecture and the job of students is usually to receive this information and regurgitate it in some form of a written test. In a world of complexity, pluralism and global awareness, professions are changing and are increasingly focusing on responsibilities, ethics, empathy and values. Developing student and graduates to have this competency rather than pure knowledge in science only will greatly influence their employability. From the analysis of the result, it shows that most of the graduates of biological sciences lack the competence in ethics mean while ethical skills or learning to live together significantly influence employability of graduates as confirm by the finding. The analysis shows that, graduates will need attitudinal skills to influence employability, however to develop such skills in graduates, managers will have to use approach such as that of ESD.

Competence in ESD provide students with skills such as transdisciplinary skills which is known to influence graduates' employability thus manager will have to manage programs in the university to enable student develop transdisciplinary skills which are competence to promote collaboration.

Mezirow, on the other hand, argues using a transformative theory that graduates must collaborate when they are faced with dilemmas in ways to critically reflect and bring out solutions to the problems they are dealing with. For many employers, environmental, social and economic crises need a holistic view, which does not need graduates that are trained using a reductionist approach but a transdisciplinary approach. To Mezirow, training students to have transdisciplinary skills at the university causes graduates to be responsible and ready to collaborate while taking action in times of crisis. Thompson uses cultural theory to explain that there are two dimensions to which graduates can interpret their environment for collective action. Firstly, the degree to which graduates act within their environment influences the degree of acceptance. The second is the acceptance of freedom of action by the environment. Thus, the reason why most of the graduates of biological sciences are not employed is because of lack of demonstration of practicability skills as action to create awareness of their competence. Thus, reasons for the significant relationship between attitudinal skills and employability of graduates. Hence, graduates will need to learn to be with the environment to increase the rate of employability.

VII. CONCLUSION

ESD has an aim to develop competency in graduates that enables employability, by empowering graduates to reflect on their action taking into consideration the current and future social, environmental, and economic dimensions.

It requires graduates to act in complex situations in a sustainable manner at the work place. To explore new ideas and approaches to participate in socio-political processes, with the objective of moving societies progressively toward sustainable development. The development of ESD competence in graduates permits them to take responsibilities and action to create a sustainable society.

These skills enable graduates to think critically while participating directly in the activities being done. It is acquired through direct internships, effective study work programs and orvolunteering in organizations that are partners to the university.

VIII. RECOMMENDATION

Leadership models that promote the development of competences should be developed and supported. Leadership isa key determinant of the success of educational change at the institutional level; ESD requires the delegation of power between institutions to facilitate educational change.

The university is encouraged to operate in a way that sustains a culture that facilitates the development of competences. Thisincludes the way in which the organization distributes its own authority, manages its resources and

networks with the wider community.

A whole-institution approach should be used for the professional development of educators. The development of competences of educators will be most effective if the culture and management of the whole organization is supportive of sustainable development.

Governance should ensure transparency and accountability. This will help to legitimize ESD program as well as to improve and further develop these competences.

REFERENCES

- [1.] Adom̄ent, M., & Hoffmann, T. (2013). The concept of competencies in the context of Education for Sustainable Development (ESD). Available at: www.esd-expert.net/assets/130314-Concept-Paper-ESD-Competencies.pdf.
- [2.] Borg, C., Gericke, N., Höglund, H. O., & Bergman, E. (2012). The barriers encountered by teachers implementing education for sustainable development: Discipline bound differences and teaching traditions. *Research in Science & Technological Education*, 30(2), 185-207.
- [3.] Fadeeva, Z., & Mochizuki, Y. (2010). Higher education for today and tomorrow: university appraisal for diversity, innovation and change towards sustainable development. *Sustainability Science*, 5, 249-256.
- [4.] Farioli, F., & Mayer, M. (2018). Learning for the future: Operationalizing competences in ESD. In *Cybernetics and Systems* (pp. 194-198). Routledge.
- [5.] Mochizuki, Y., & Fadeeva, Z., (2010). Competences for sustainable development and sustainability: Significance and challenges for ESD. *International Journal of Sustainability in Higher Education*, 11(4), 391- 403.
- [6.] O'Donoghue, R. (2014). Think piece: Re-thinking education for sustainable development as transgressive processes of educational engagement with human conduct, emerging matters of concern and the common good. *Southern African Journal of Environmental Education*, 30, 7-26.
- [7.] Rieckmann, M. (2012). Future-oriented higher education: Which key competencies should be fostered through university teaching and learning?. *Futures*, 44(2), 127-135.
- [8.] Tambi, Mbu Daniel. "Economic growth, crisis, and recovery in Cameroon: A literature review." *The Journal of Industrial Distribution & Business* 6, no. 1 (2015): 5-15.
- [9.] Wals, A. E. (2014). Sustainability in higher education in the context of the UN DESD: a review of learning and institutionalization processes. *Journal of Cleaner Production*, 62, 8-15.
- [10.] Bandura, A. (1971). Vicarious and self-reinforcement processes. *The nature of reinforcement*, 228278.
- [11.] Apple, M. W., & Teitelbaum, K. (2002). JOHN DEWEY 1859–1952. In *Fifty Major Thinkers on Education* (pp. 177-182). Routledge.
- [12.] Mezirow, J. (2008). An overview on transformative learning. *Lifelong learning*, 40-54.

- [13.] World Bank Group. (2013). *Global financial development report 2014: Financial inclusion* (Vol. 2). World Bank Publications.