Transformative Pedagogy for Teachers and Life Long Learning in Teacher Training Colleges in Cameroon

Introduction

Educational systems of countries in the 21st century are experiencing a period of expansion and change due to the influence of new technologies, scientific discoveries and globalisation. In the face of these, significant educational issues have emerged since the year 2000, such as the need to improve the development of skills for lifelong learning and work for all age groups, provision of inclusive environments where all learners can reach their full potentials given opportunities, effective teaching and appropriate instructional resource use. Despite these new experiences, critics of educational change like Robertson(2005) and Reid(2005) hold that while the social and cultural experiences of children and wider society have drastically transformed over the past 50 years, schools have failed to keep pace with this change. That classroom of today would easily be recognizable to pioneers of public education of the 1960's because of the ways in which teaching and learning is organized, the kinds of knowledge and skills that are valued by assessment, and the content of the curriculum have changed superficially since that era. This begs the question as to whether schools are responding positively to the changing characteristics of education in tandem with a constantly changing society's realities. Thispaper argues that the shift in educational goals along with changing concepts and practices of education necessitates parallel changes in the role and function of teachers. This requires innovative pedagogic practices to ensure that teachers are adequately trained to cope with their changing and increasingly demanding roles in providing relevant learning experiences.

Concept of Lifelong Learning

Lifelong learning is all learning activities done throughout life, aimed at improving knowledge, skills and competences in personal, civic, social and employment-related domains. It enhances social inclusion, active citizenship, and personal development, self-sustainability, competitiveness and employability. Lifelong learning is also known as 'learning from the cradle to the grave', or 'learning starts in the womb and ends in the tomb'. Lifelong learning can be found in many ancient civilizations as part of cultural and religious beliefs. Today lifelong learning leads the paradigm for reflections on educational systems and reform. Lifelong learning is rooted in the integration of learning and living, covering learning activities for people of all ages, genders in all contexts of life (family, school, community, and workplace) and through various modalities (formal, non-formal and informal) to meet a wide range of learning needs.

Lifelong learning for learners must be engineered by lifelong learning for teachers because from the curriculum perspective, the classroom should serve the needs of society, which is undergoing profound and accelerating change. Awareness about the stages in the lifelong learning cycle informs teaching-learning practices at each stage and gives a coordinated, comprehensive vision to approach the process. Lifelong learning emphasises the need to continue to learn/re-train for current teaching responsibilities, opening opportunities in the teaching career development. Skills and keywords such as adaptability, flexibility, teamwork, innovation and initiative are required for effective teaching in the field. Also, it is important to highlight that in the lifelong learning framework, formal education structures are less important than learning and meeting learners' needs (The World Bank 2003).

Transformative Pedagogy

Also known as transformative learning, Transformative Pedagogy is defined as the process of effective change in a frame of reference (Mezirow, 1991, 1997). Cranton (1996), defines Transformative Pedagogy as learning that induces more far-reaching change in the learner than other kinds of learning, especially learning experiences which shape the learner and produce a significant impact, or paradigm shift, which affects the learner's subsequent experiences.

According to Myers (2006) it is an approach to teaching that encourages students to grapple with disorienting dilemmas, critically examine their assumptions related to the contradictory information, seek out additional perspectives, and ultimately acquires new knowledge, attitudes and skills in light of these reflections – all in order to experience personal and intellectual growth.

Khedkar (2016) believes that transformative pedagogy is a combination of constructivist and critical strategies to empower students to examine their existing experiences in order to develop a reflective base, appreciate multiple

perspectives and critical consciousness. Transformative pedagogy operationalizes education linked with sustainability. It focuses more on the processes of learning than the accumulation of knowledge with aim to develop the capabilities to improvise, adapt, innovate, and be creative. As such, knowledge is not regarded as a given truth before its learning but the students develop outcomes through their inquiry and experimentation. The teacher is not content expert, primary source of knowledge but uses transformative strategies; use the students' questions about the topic; facilitates the students' identification of questions and develops with them a plan for answering their questions.

Theoretical Implications

The process of transformative learning is based on the transformative theory of Jack Mezirow(1981) who describes it as constructive orientation that is based on the ways learners interpret and reinterpret their experience in order to make meaning of their learning. The theory posits that adults learn best through questioning the premises and contents of their practices and experiences. According to Mezirow (2003), learning is transformative when it changes problematic frames of references-set of fixed assumptions and expectations to make them more inclusive, discriminative, open, reflective and emotionally able to change. He argues that transformative learning theory can serve to produce and develop adults who are more autonomous and can think critically; producing adults who can reflect or think autonomously is a fundamental and inevitable constituent of having citizens who can act democratically.

However, Sharma &Talukdar (2018) argue that this theory focuses on individual but does not include how transformative learning may impact on relationship with peers or communities of practices to which these learners belong. It is therefore for this reason that the study seeks to find out the extent to which transformative learning strategies of collaborative inquiry and critical self-reflection can enhance lifelong learning in students of teacher training colleges in Cameroon

Objectives

This paper attempts to examine how transformative pedagogy can foster lifelong learning for trainees in teacher training colleges in Cameroon.

Specifically, this study sets out to;

1.) Determine the extent to which teachers use of collaborative inquiry leads to lifelong learning in trainees
2.) Find out the extent to which teachers encourage critical self-reflection in their learners and its effects to lifelong learning.

Research Questions

The main research question is; to what extent does transformative pedagogy lead to lifelong learning in learners?

Specific questions include:

1.) To what extent does teachers' use of collaborative inquiry lead to lifelong learning in learners?
2.) To what extent do teachers encourage critical self-reflection that leads to lifelong learning in learners?

Hypotheses

H_0: There is no significant relationship between collaborative inquiry and development of lifelong learning skills.
H_a: There is a significant relationship between collaborative inquiry and development of lifelong learning skills.

Delimitation

The study was delimited to all the teacher training colleges in of the South West Region of Cameroon.

Methodology

The study is basically a survey design that used both quantitative and qualitative research instruments for Data collection.

Research Context

Formal training of teachers in Cameroon started in 1925. It was known as Normal College with aims as narrow as those of schools themselves geared towards the provision of basic skills in the 3Rs. Tchombe, in Ndongko and Tambo (2000) contends that during that period, the stimulation of the learners mind by teaching them to think or to develop general ideas so as to open up ways to higher education was not adequately encouraged. Teachers were trained with a view to primary education only. Today, the training of teachers has evolved to include different and specific kinds of teacher preparation for different types and levels of schools. These include the nursery and primary level, Vocational technical secondary level, or the general secondary level and the advanced technical and general secondary level. While the nursery and primary teachers are trained by the secondary education sector, training to the vocational technical and general secondary level are done by the higher education sector.

Basically, there are three levels of teacher training colleges in Cameroon. Namely:

Level 1 = Nursery and primary level

Level II= Lower Secondary level

Level III= Higher Secondary level.

These different categories of teacher training colleges train teachers for different course duration, different entry qualification, and different levels of knowledge acquisition with different types of certifications. These training colleges are presented on the table below

Table 1: Distribution of Teacher Training Colleges for all Types and Levels in Cameroon

Types of teachers colleges	Far north	North	Adamawa	East	Cen	South	Lit.	S.W	N.W	West	Total
Primary and Nursery											
E.N.I grade I	1	1	1	1	2	1	2	2	1	1	13
E.N.I grade II	3	2	1	1	3	3	3	3	2	3	24
Technical Education Training College											
E.N.I grade I											
E.N.I grade II	1				1		1		1		4
Advanced Technical Training College											
E.N.S.E.T				1	1		1	1	1		5
Secondary Training Colleges											
	1			1					1		3
Advanced Secondary Training College											
E.N.S				1	1				1		3
Total	6	3	2	5	8	4	7	6	7	4	52

Population and Sample

The population of the study was made up of all the students in the teacher training colleges in South West Region, while the sample consisted of 60 teachers conveniently selected from the three different levels of teacher training colleges specifically made of the primary and nursery; the secondary training and the advanced secondary training colleges. 10 teachers were chosen from each of the three levels to give a total number of 60 respondents.

Data Collection

Data was collected with the help of the questionnaire and interviews. The teachers of the three levels of teachers training colleges provided responses related to the use of transformative pedagogy strategies and their impact on lifelong learning in learners.

Instrumentation

The questionnaire and interview guides were used as research instruments.

Questionnaire

The questionnaire was used to collect data for research questions one that sought to determine the extent to which collaborative inquiry could lead to lifelong learning in trainees. A 4-point likert scale characterized by the options Strongly Agree (SA), Agreed (A) Disagree (D) and Strongly Disagree(SD) was used for this

Interview

An interview guide was developed and used to provide response to the open ended questions that accompanied the items on Likert scale in research question one and exclusively to provide qualitative responses to research question two that addressed issues on the extent to which teachers use of the transformative learning strategies of critical self reflection lead to lifelong learning in trainees.

Data Analysis

Data collected was analysed inferentially and descriptively with the help of the SPSS, version 20.0. Qualitative was reported based on responses obtained. The relationship between collaborative inquiry and lifelong learning was established using the Chi Square test of independence.

Findings

Data Analysis and interpretation of questionnaire in Research Question One

To what extent does collaborative inquiry lead to lifelong learning in learners?

This research question set out to investigate the extent to which collaborative inquiry led to the acquisition of lifelong learning in trainees of teacher training colleges in Cameroon. The different aspects of collaborative inquiry exploited and their resulting statistics are presented in table 2 below:

Table 2: Means and standard of levels of collaborative inquiry

	N	Mean	Std. Deviation
Use of Collaboration	30	1,50	,630
Use of Peer Review	30	2,10	,607
Use of Observation	30	2,80	,664
Use of Informal Meetings	30	2,57	,858
Use of Networking	30	2,13	,629
Use of Mentoring	30	2,10	,712

Details of this distribution are presented on the figure below:

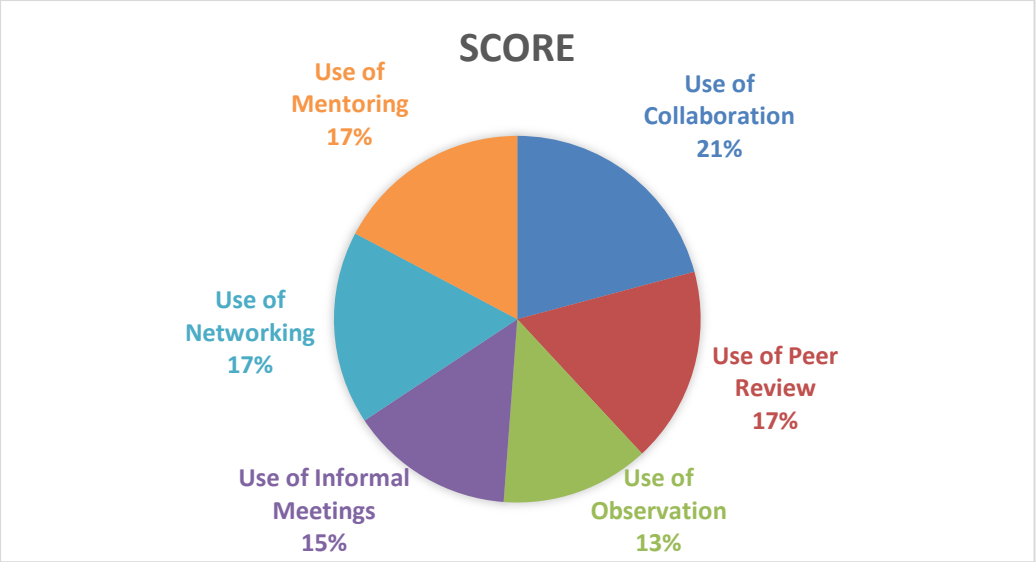

Figure 1: Use of the different collaborative inquiry techniques by teacher trainers

In order to establish the extent to which collaborative inquiry leads to the development of lifelong learning skills, each of the techniques exploited were subjected to the Chi Square test at 95% level of confidence.

Table 3:
Chi Square statistics of the relationship between collaborative inquiry and lifelong learning

	Use of Collaboration	Use of Peer Review	Use of Observation	Use of Informal Meetings	Use of Networking	Use of Mentoring
Chi-Square	11,400[a]	12,600[a]	7,200[a]	10,800[b]	10,400[a]	21,467[b]
Df	2	2	2	3	2	3
Asymp. Sig.	,003	,002	,027	,013	,006	,000

At a degrees of freedom (df) of 2 and an error margin of 5% (.05) the critical value is 5.991.Since χ^2_{cal} for all sub variables is $> \chi^2_{crit}$ (5.991), H_o is rejected and H_a is accepted. It can be concluded that collaborative inquiry significantly influences the development of lifelong skills in trainees in teacher training colleges in Cameroon.

Descriptive Analysis of interview results on research question two

How does critical reflection lead to lifelong learning skills in learners in trainees?

This question was aimed finding out the extent to which teachers encourage critical reflection in their students. This research question was answered using data from the interview conducted with nine teachers, three from each of the three levels of education; basic, secondary and tertiary. Their responses regarding the different areas of critical reflection are reported as follows:

Item 1: At the beginning of the term, do you ask students to reflect on their current knowledge and skills about:
a) Their prior learning about teaching?

Teachers who train for primary and secondary schools unanimously declared that they do not ask their learners this critical question. When quizzed further, they indicated that they had little knowledge about lifelong learning.

At the University level two out of the three teachers (representing 66.67% of higher education teachers) interviewed actually take out time to discourse the trainees prior knowledge about teaching. “We need to get their preconceptions about teaching at the start so that we can effectively measure the changes with time” they declared.

b) To reflect on their experiences about what they do?

Again, no teacher trainer for primary sector is bothered about causing students to reflect on their experiences while only one out of three teachers in the secondary sector (33.33%) said that they do so.

At the university level, 66.67% of the teachers cause students to reflect on their experiences about what they do. To them this allows the trainees to fully connect the teaching art with the contexts from which they come.

c) Understand themselves as learners?

No teachers of primary and secondary sector encourage students to understand themselves results indicated while all three teachers of the University affirm that they insist on the learners to understand themselves and how they learn. One of them refers to this process as "metacognition" which allows learners to constantly reflect about the ways they learn.

d) Analyse their experience and compare to models or principles that they want to follow?

Interviewees from the primary and basic sectors said they do not encourage learners to compare experiences to models because the learners live these experiences and it is thus left for them to relate the knowledge acquired to their realities. At the University level, two out of the three teachers interviewed insisted that meaningful learning must revolve around the experiences of the learners.

Item 2: Do you encourage students to set goals about learning and take responsibility for learning?

All nine teachers interviewed generally agreed that they encourage their learners to set learning goals and take responsibility for their own learning. This agreement is consistent across all three levels primary, secondary and university.

Item 3: Do you encourage students to assess their learning progress during and at the end of the term or semester?

Trainers for the primary and secondary sectors said that they do not encourage students to do self-assessment of learning but argued that assessment is taken care of during sequential evaluation every six weeks meanwhile all three respondents at University level see an assessment of self-learning as key to effective and efficient long term learning.

Item 4: Do you encourage students to discuss areas they would like to explore?

Only one out of the nine teachers interviewed agree to encouraging students discuss areas of interest they want to explore; none in the primary and secondary sectors. When quizzed further, they intimated that there is a curriculum waiting to be covered and the time is limited. "It is not very wise to abandon the content to be taught and focus on particular learner interests" one of them said.

Item 5: Do you encourage your students to carryout self-assessment?

All teachers interviewed at all levels agreed that they encourage their students to carryout self-assessment throughout the training period.

Item 6: **What are the challenges you face in adopting the transformative learning strategies?**

Teachers of the primary and secondary sectors revealed that transformative teacher training is still relatively new to them and as such they do not have adequate knowledge about it. Teachers at the University level raised issues similar to their colleagues of primary and secondary and added that transformative classroom practice requires very highly skilled teachers, instructional materials etc. which for the most part are inadequate. "The current socio-political crises in Cameroon makes the teaching learning transaction almost impossible with security challenges and overcrowded classrooms in areas where schools are functional" one of them lamented.

Discussion and Conclusion

Collaborative Inquiry: Results of the findings above hold that teachers' use of collaborative inquiry fosters livelong learning in trainees of teacher training colleges. These findings suggest that teachers make and sustain valued changes to their practice when they collaboratively construct, monitor and adapt context-specific approaches to address their goals. In collaborative inquiry, teachers work together to define problems, co-plan, co-

teach, co-monitor and interpret outcomes and then consider together what's next. When teachers collaboratively develop and test their own conceptions, they can better grapple with new theories and practices.
Eliahoo, Giglo and Wessum (2018), writes that Peer review and observations in classrooms are ways to encourage collaborative competences and lifelong. This could take the form of 'Learning Walks', where teachers allow colleagues to observe their classrooms on an informal and non-judgemental basis. This peer evaluation as well as structured professional discussion between teachers has been described as a form of learning. They further prescribe the creation of personal teaching logs, and diaries which can capture important aspects of classroom practice; regular informal meetings and networking, so that teachers share best practices across contexts and institutions; and lifelong career support through mentoring and/or coaching.

McGill & Brockbank (2004), describe 'intervision' or 'action learning' as a peer coaching activity which aims to develop professional expertise and help colleagues gain insight into their work problems. They argued from evidence that Practitioners of 'intervision' or 'action learning' claim that it can bring a practical understanding of theory, as well as contributing towards a collaborative culture where people feel collectively responsible for their organisation and its performance.

Critical self reflection: Results from the qualitative data show that very little is done by teachers to encourage self reflection. However teachers of the university level showed more positive attitude towards encouraging critical self reflection in learners. This notwithstanding, it is generally accepted that learning requires reflection. According to Kilion and Todnem (1991, .p.5)"it is the practice or act of analyzing our actions, decisions, or products by focusing on our process of achieving them". Bright (1996) contends that reflective practice is the process which underlies all forms of high professional competence. It helps students to construct their knowledge based on their previous experience and incorporate new ideas and concepts to reach the goals they set for themselves (Chuprina and Zaher, 2019). Therefore when educators engage in high-quality learning experiences, the impact on student learning is positive.

Reflective practices facilitate learning, renewal, and growth throughout the development of career educators (Steffy, Wolfe, Pasch, & Enz, 2000). Chuprina and Zaher (2019) concluded that reflection and assessment of one's own learning process are two most important skills for lifelong learning. So, through reflection on their learning process, students provide valuable information on their learning preferences, their strengths and weakness, and the goals they want to achieve. Consequently, teachers become facilitators and advisors in the learning process and also provide resources to meet the students' learning needs. Students are thus actively encouraged to define and take responsibility for their own contributions to the learning process with the understanding that their engagement is critical for substantive learning to take place

Conclusion

The study highlights the importance to focus on knowledge that is transferable to the classroom, avoid information overload which can lead to lower levels of satisfaction with the courses, repel teachers from enrolling in the training courses and lower rates of return for further training. This underscores the need for competences acquired at the initial training phase for teachers to conform to the requirements of the teaching profession in the field when deployed as independent trained practitioners. That means transformative pedagogy could be the tool for teacher-trainers to facilitate the preparation process for teachers as lifelong learners who can effectively meet the teaching challenges of the teaching job, learning desires of learners and socio-economic development aspirations of the communities concerned.

References

Brown, K. M. (2005). Transformative adult learning strategies: Assessing the impact on pre service administrators' beliefs. *Educational considerations*: Vol. 32: No. 2. https://doi.org/10.4148/0146-9282.1242

Callon, M. (1986). Some elements of translation: domestication of the scallops and fishermen of st. Brieuc Bay. First published in *law, power, action and belief: A new sociology of knowledge*.London: Routledge.

Coolahan, J. (1991). Teacher education in the nineties: Towards a new coherence. In Coolahan, J. (ed.) *Teacher education in the nineties:*Limerick, ATEE

Finsterwald M., Wagner P., Schober B., Lüftenegger M., Spiel C. (2013). Fostering lifelong learning:Evaluation of a teacher education program for professional teachers.*Teaching and teacher education*. 29 (2013), p. 144-155. Vienna: Elsevier LtdDOI: 10.2478/rpp 2018-0015

Flay, B. R., Biglan, A., Boruch, R. F., Gonzalez Castro, F., Gottfredson, D., Kellam, S., et al. (2005). Standards of evidence: criteria for efficacy, effectiveness and dissemination. *Prevention science*, 6(3), 151e175. http://dx.doi.org/10.1007/ s11121-005-5553-y.

Ilgaz, G. and Eskici, M. (2018). Examination of teacher candidates' lifelonglearning competence and basic motivationresources as parts of sustainability.*Journal of sustainability*, *11*, 23; doi:10.3390/su11010023.

Incheon Declaration (2015). *Education 2030: Towards inclusive and equiatable quality education and lifelong learning for all.* Incheon: UNESCO and partner organisations.

Khedkar, P. N. (2016). Transformative pedagogy: A paradigm shift in higher education. *The 3rd international conference on multidisciplinary research and practice.* Volume IV Issue I IJRSI ISSN 2321-2705. *Gujarat: India* Retrieved from https://www.academia.edu... On the 10/06/2019.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participarion.* Cambridge: England. Cambridge University Press.

McGill, I., Brockbank, A. (2004). *The Action Learning Handbook.* Abingdon: Routledge

National Research Council. (2000). *How people learn: Brain, mind, experience, and school* (expanded edition). Washington, D.C.: National Academy Press.

Ndongko, M. T &Tambo. L.I (2000) Educational development in Cameroon: 1961-1999 issues and perspectives. Madison, USA. Nkemji Global Tech

Nyerere, J. (1978). Development is for man, by man, and of man: The declaration of Dar es Salaam. In Hall, B. and Kidd, J. R. (eds.).*Adult learning: A design for action*, Oxford: Pergamon Press.

Schunk, D. H. (2001). Social cognitive theory and self-regulated learning. In Zimmerman, B. J. and Schunk, D. H. (eds.). *Self-regulated learning and academic achievement: Theoretical perspectivist theories-An educational perspective*. NJ: Lawrence Erlbaum AssociatesPublishers.

Sharma, J. & Talukadar R, S. (2018) service experience of undergraduate engineers International Journal of Research on Service-Learning and Community Engagement Volume 6, Issue 1, Article 14 |2018 | ISSN: 2374-9466 | https://ijrslce.scholasticahq.com/ on the 24/06/2019

Southall, J. K. (2003) Twelve ideas for professional excellence. *Teaching Music*, *11*(1), 48-53.

Spiel, C. (2009). Evidence-based practice: a challenge for European developmental psychology. *European Journal of Developmental Psychology*: 6(1), 11e33.

Syslo M. M (2003). Schools as lifelong learning institutions and the role of information technology. *Przesmyckiego 20, 51-151.* Warsaw: Poland

The World Bank/The International Bank for Reconstruction and Development (2003). *Lifelong learning in the global knowledge economy: Challenges for developing countries*. ISBN 0-8213-5475-2

Tovkanets H. (2018). Lifelong learning in enhancing professional teachertraining in the European countries. Comparative professional pedagogy: 8(2).

UNESCO (2003). *UNESCO institute for lifelong learning technical note.* Retrieved from **https://uit.unesco.org**>...On the08/06/2019.

Wenger, E. (1998). *Communities of Practice: Learning, Meaning and Identity*. Cambridge, UK: Cambridge University Press