



Blending Critical Thinking Skills in Teacher Education

ROMA RUPAL FRANK
Research Scholar
Pacific University, Udaipur, Rajasthan

Abstract:

This paper will therefore discuss the concept of critical thinking and its skills. It will highlight the Need to teach critical thinking skills at teacher and Characteristics of critical thinking at education level. It will also explore the strategies for teaching critical thinking as well as the possible challenges. It will finally make recommendations for overcoming the challenges.

Keywords: *Critical Thinking Skills, Need and Strategies, Teacher Education*

1. Introduction

One factor that is common to all countries in under- development, but the good news is the increasing awareness since the 1990s that education is the catalyst to sustainable development, hence the many educational conferences both within and outside the continent in the 1990s, which have generated some educational policies like Universal Basic Education (UBE), Education for All (EFA), Millennium Development Goals (MDG) (Obanya, 2002) and 'Imbewu' in South Africa. What is becoming increasingly clear in today's world however is that a nation's development is significantly dependent on the quality of her human capital which is in turn dependent on the quality of education they receive. It is the reason why the World Bank and some other international donors are sponsoring various education reforms in Sub Saharan Africa including Kwara, Kaduna and Kano states in Nigeria, Madagascar, Sierra Leone, Ghana, Senegal, etc. However, there is no automatic connection between education and development except through the quality and quantity of knowledge and skills both practical and cognitive that the beneficiaries are exposed to at all levels, particularly at the higher education level (teacher education included) which is purposely designed to produce high level manpower (Fafunwa, 2004). One aspect of the cognitive or intellectual skills that is relevant with wide applicability and which students should imbibe as they go through the educational ladder as simply expressed in Nigeria's national policy on education is the ability to think for themselves. This refers to ability to engage in critical thinking to enable them acquire an objective view of the local and external environment as well as become useful members of the society (Ijaiya, 2008). The type of curriculum designed, its quality, the instructional delivery, which accommodate critical thinking skills are therefore germane for manpower development. This implies that teacher education must provide training in critical thinking among other skills. The role of the teacher in schools has remained a significant factor in education. Even with the increasing use of Computer Based Teaching and Testing (CBTT), the teacher's role is still intact if only to prepare courseware and conduct on-line discussion and evaluation. This paper will therefore discuss the concept of critical thinking and its skills. It will highlight the Need to teach critical thinking skills at teacher and Characteristics of critical thinking at education level . It will also explore the strategies for teaching critical thinking as well as the possible challenges. It will finally make recommendations for overcoming the challenges.

2. Concept of critical thinking

Critical thinking (CT), generally speaking is a universal exercise that man engages in at one point or the other depending on the Situation and decision he has to make. The skill(s) of doing so is however not universal as some individuals are more proficient in it than others. The skill(s) can however be

taught and learnt. The introduction of Critical Thinking Skills (CTS) into higher education was traced to the 1980 Rockefeller Commission on the Humanities' recommendation that it be included in the US office of Education's definition of basic skills. By 1985, three Universities in the US were offering CT in Master of Arts (M.A.) programs. At the California State University, the College Board made it one of the six basic skills to be included in their curriculum (ERIC Digest, 1988). Besides, the issue of CT has also received the attention of many researchers and reputable learned journals. Critical thinking has received a lot of attention from scholars and the literature is wide. In the process, it has generated many definitions. Screven, 1996 defined it as "...the intellectual disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing and or evaluating information gathered from or generated by observation, experience, reflection, reasoning, (Walker TRC, 2006, p.2). Angelo, 1995 also conceived it as "the intentional application of rational, higher order thinking skills, such as analysis, synthesis, problem recognition and problems solving, inference and evaluation" (Mayanja, M.K., Adebua, F.N., Kabuye, M.K. & Kaase-Bwanga, 2007, Schafer man (1991) defines it as "... correct thinking in the pursuit of relevant and reliable knowledge about the world". According to the Centre for Critical Thinking, critical thinking is "thinking that assesses itself" while Beyer 1995, put it simply as "...making reasoned judgment" (Walker TRC, 2006, p.2).

Critical thinking is thus conceived as synonymous with higher order thinking, a concept that was generated by learning taxonomy proponents like Bloom. The concept of higher order thinking was part of education reform, which is based on the "idea that some types of learning require more cognitive processing than others but also have more generalized benefits" (ERIC Digest, 1988). For instance, in Bloom's taxonomy of educational objectives, the skills of analyzing, synthesizing and evaluation are seeing as of higher order than simple recall and understanding. Critical thinking is therefore concerned with information processing and can be viewed as a complex, purposive, judgmental (quality) higher order reasoning, which is usually devoted to problem solving and decision making. The goal is always to reach sound conclusions based on credible premises.

3. Need to teach critical thinking skills at teacher education level

Critical thinking skill is not an isolated skill but rather one with a wide applicability. It is a skill needed by all leaders, followers, professionals, businessmen, market women, young and old, men and women, in business thinking, teaching thinking, medical thinking, personal thinking, etc. For teachers who are entrusted with producing future leaders and manpower for every nation, it is even quintessential. The world today faces many paradoxes. For instance, on the one hand is a world witnessing knowledge explosion in science and technology, while on the other hand, are schools generally falling in standard. Another example is a world relishing Information Communication Technology (ICT) products and yet getting poorer economically and understanding each other less with peace getting more elusive. The world needs more critical thinkers in all spheres including emerging democracy especially in Africa for a more peaceful and progressive society. Schools also need to braze up for teaching critical thinking to enhance the study of science and technology. The current global knowledge explosion in virtually all fields could not have been possible without widespread CTS. It is also necessary for "...protection of human rights, professional conduct good governance,... social justice...and research ethics" (Nassor & Vitikounen, 2009).

At school level, students now submit sub-standard projects and seminar papers that give supervisors hard time. Many do not attempt to participate in seminar discussions or make meaningful contribution even when prompted. Some find it difficult to interpret simple questions. These are evidence of poor critical thinking skills.

The crux of the matter however, is whether CT is consciously or sub-consciously taught and applied in higher institutions, particularly in teacher education.

The teaching of CTS will promote quality in teacher education:

- It will enable students to ask good questions and reason logically in all subjects. Raising fresh questions will help to advance knowledge in any field.
- Students' projects and seminar presentations will be more lively, illuminating and more scholarly.
- Students' confidence is likely to increase, their answers would be richer and that can improve their academic performance, thereby curbing the menace of examination malpractice. Class participation will also improve.
- It can also promote teachers effectiveness and efficiency as well as reduce wastage in the educational system.
- When students become good thinkers, unemployment can reduce with benefits to the individuals and the nation.
- The incidence of electoral violence, rigging and other malpractices can give way to more credible elections and better governance as politicians and their party men make more reasonable decisions.
- It can also promote self development and improve quality of life.

4. Characteristics of critical thinking

Eight characteristics of critical thinking were identified by Wade, 1995 as:

- Asking questions.
- Defining a problem.
- Examining evidence.
- Analyzing assumptions and biases.
- Avoiding emotional reasoning.
- Avoiding over interpretation.
- Considering other interpretation.
- Tolerating ambiguity.

Dealing with ambiguity is also considered an important characteristic of critical thinking.

Beyer 1995 also shed light on what he considers to be characteristics of critical thinkers:

- Dispositions – Critical thinkers are skeptical, open-minded, value fair-mindedness, respect evidence and reasoning, respect charity and precision, look at different points of view and will change positions when reason leads them to do so.
- Criteria- To think critically, one must apply criteria. According to Beyer “.....an assertion must ...be based on relevant, accurate facts, based on credible sources, precise, unbiased, free from logical fallacies, logically consistent and strongly reasoned”.
- Argument- A statement or proposition with supporting evidence. Critical thinking involves identifying, evaluating and constructing arguments.
- Reasoning: The ability to infer a conclusion from one or more multiple premises. To do so requires examining logical relationships among statements or data.
- Point of View: This is about one's view of the world and how it helps to shape one's perception of the world.

5. Strategies for teaching critical thinking skills

The position of this paper is not that critical thinking is completely absent in lecture rooms. At some points, lecturers would have asked questions that demand critical thinking both in science and humanities' lectures. However, as mentioned earlier, there is a difference between doing something consciously and doing it sub-consciously without realizing its values. What is being advocated here is that critical thinking skills be taught and utilized consciously during lectures, in the laboratories, home works, term papers, seminar presentations, tests and examinations. Critical thinking is “so subtle that instructors fail to recognize it and students fail to recognize its absence” .

Some strategies have been put forward as follows;

- CATS (Classroom Assessment Techniques)- This is concerned with use of classroom assessment to assess, monitor and thus fostering critical thinking among learners, e.g. the lecturer can ask students to assess their contribution to classroom discussion.
- Cooperative learning strategies- It involves putting students in groups for brainstorming and discussion but guided by the teacher and students.
- Case study/ Discussion method- involves presenting a case to students to discuss and allowing them to infer conclusions.
- Use questions-Reciprocal peer questioning and reader's questioning. The former could be inform of teacher' questions after a lecture or students', which they can discuss in groups and then present to the class. The latter may involve students being asked to raise questions from an assigned reading, some of which can be selected for class discussion.
- Conference style learning- The approach is to allow students to operate as if in a conference while the lecturer simply facilitates. Students must have prepared well and ask each other questions and discuss.
- Written assignments- Encouraging students to do write assignments with questions requiring arguments on both sides.
- Dialogues-They could be in written form whereby students would analyze written dialogues in groups. Another is Spontaneous group dialogue in which students can assume roles to play, e.g. a leader, a principal, while observer groups are formed to watch and criticize their actions, opinions, errors in thinking and reasoning, etc.
- Ambiguity- The idea is to avoid spoon feeding in the class but give ambiguous information for students to sort out.

It is however important that students first internalize the principles of CT and then be able to apply it effectively on a wide scale.

6. Challenges of teaching CT in teacher education

The following are possible challenges to teaching CT in teacher education in Africa:

- Inadequate knowledge base by some lecturers;
- Possible lack of agreement among lecturers on which approach to use;
- Possible lack of support from cooperating departments;
- If not taught at the primary and secondary levels, it may be difficult for students to imbibe; this is the current situation;
- Training opportunities may not be available for lecturers;
- Possibility of resistance from lecturers especially if it will involve adding credits to over-loaded curriculum and more work;
- Cost of reviewing and re-printing the institution's academic brochure.

7. Conclusions

This paper made a case for conscious teaching of critical thinking in teacher education noting the importance and strategic position of education and teachers in the development of any nation and particularly in all country, which has been struggling in the last 20 years or so to wriggle out of the status of under-development through various reforms. The concept of critical thinking and its skills were highlighted. It will also explore the strategies for teaching critical thinking as well as the possible challenges. It will finally make recommendations for overcoming the challenges.

References

1. Education.[On line]. [http:// www.ericdigests.org/pre-929/critical-htm](http://www.ericdigests.org/pre-929/critical-htm) Retrieved 19/01/10
2. ERIC Digest, (1988). Critical thinking skills and teacher
3. Fafunwa, A. B. (2004). History of education in Nigeria. Ibadan: NPS Educational Publishers Limited Federal Republic of Nigeria (2004). National policy on education.

4. [http://www.utc.edu/Administration/Walker Teaching Resource Centre/Faculty department/Critical Thinking/index.html](http://www.utc.edu/Administration/Walker_Teaching_Resource_Centre/Faculty_department/Critical_Thinking/index.html) Retrieved 16/01/10
5. Ijaiya, N.Y.S. (2008). The quality of teacher education in Nigeria. In A. Ejiogu & V. Onyene: Emergent issues in Nigerian education. 4. September, 2008. pp. 230-250.
6. line]. <http://www.freeinquiry.com/criticalthinking.html> Retrieved 20/01/10 Walker TRC (2006). Critical thinking. [On,-line].
7. Mayanja, M.K., Adebua, F.N., Kabuye, M.K. & Kaase-Bwanga (2007). A Comparative study of Makerere University graduates of the faculties of arts and sciences. In J.B, Babalola and B.O. Emunemu (eds) Research Evidence From Sub-Saharan Africa. Ikeja: Bolabay Publications.
8. Nassor, M. and Vitikounen, A. (2009). Philosophy in East Africa: Towards clinical thinking, professional, & democracy, 11/09. Retrieved from <http://www.africa.upenn.edu/Current.Events/philtakz-cfp1109.html>
9. Obanya, P. (2002). Revitalizing education in Africa. Lagos: Stirling-Horden Publishers (Nig.) Ltd.
10. Schafersman, S.D. (1991). An introduction to critical thinking. [Online]