

# BUILDING CRITICAL THINKING AT UNIVERSITY

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## *Abstrak*

Berpikir kritis merupakan kemampuan untuk memahami permasalahan secara analitis dan komprehensif. Kemampuan ini perlu dibangun dan dikembangkan di universitas sebagai sebuah institusi pendidikan yang akan mencetak para ahli yang berperan dalam melakukan perubahan. Untuk itu berpikir kritis tidak dapat dipisahkan dari rencana pembelajaran di dalam kelas yang mengarah pada literasi kritis (membaca dan menulis kritis). Artikel ini membahas tentang berpikir kritis sebagai sebuah konsep dan pendekatan, pentingnya berpikir kritis pada pengajaran dan pembelajaran di universitas, dan bagaimana membangun serta menguatkan berpikir kritis pada diri mahasiswa.

**Kata-kata kunci** : *critical thinking, critical literacy, university*

## INTRODUCTION

Nowadays, the focus of teaching and learning is shifting from teachers-centered to learners-centered. In other words, students not only learn about what is given by lecturers, but they must also learn to think why the material is given. Therefore, students are given large opportunities to explore knowledge from opinions, arguments, and experiences.

University as a higher education, in this context, should be able to facilitate the students in constructing their knowledge. Therefore, one of the instructional purposes in university setting is facilitating the students analyze issues critically, develop their way of thinking, and understand concepts (Tjandra, 2007: 52). Thus, in this instructional setting, lecturers function as facilitators for their students in obtaining knowledge by selecting, analyzing, synthesizing, and inferring concepts actively rather than as the sources of knowledge.

Teaching and learning at university extremely involves thoughtful and creative process. In this perspective,

criticality (critical thinking) becomes the part of pedagogical practices. Constructivist approach is much recommended to enable students to think the given problems in learning critically as well as to enable them to construct their own knowledge.

In fact, critical thinking has not much been taught in Indonesian university. Many lecturers still implement product approach rather than process approach in their classroom. Consequently, the students are lack of capability to testify informations, theories, arguments, and concepts. Otherwise, they only memorize and take for granted what has been given in lectures without criticizing why this should be given.

This article attempts to explore the importance of critical thinking and how to reinforce it in university level of education. Hopefully, this study could provide better understandings, so that lecturers could implement meaningful teaching and learning process to achieve critical awareness at university.

## DISCUSSION

### Critical Thinking: Concept and Approach

Critical thinking has been studied by many scholars from different disciplines: philosophy, psychology, and education. From the conducted studies, it emerged many terms for critical thinking including 'critical reasoning' (Barnett, 1990; Martin, 1998; Walker, 1999), 'creative thinking' (Ruggeiro, 2003; Lubart, 1994; Runco, 2004), 'thinking skills' (Bernstein, 1995; Halonen, 1995; McBurney, 1995), and 'higher-order thinking' (McGuinness, 2005).

In a very simple way, critical thinking can be defined as the careful and deliberate determination of whether to accept, reject, or suspend judgment about a claim (Moore and Parker, 1986: 4). Thinking critically involves a lot of skills, including the ability to listen and read carefully, look for and find hidden assumption, and trace the consequences of a claim. Siegel (1988) argued that critical thinking is 'principled', 'consistent', 'impartial', and based on 'standards' which are taken to be 'universal and objective'. He regards critical thinking as an educational ideal which involves dispositions, habits of mind, and character traits as well as skills. Dauer (1989), moreover, claimed that 'critical thinking might be taken as the art of assessing truth claims according to certain general principles or canons' (in Johnston et.al, 2011: 21). Those definitions indicate that critical thinking relates to text analysis with general and objective principles and standards.

The characteristics of critical thinking, as noted by Tjandra (2007: 54), are as follows: 1) finding the truth, open-minded, analytic, systematic, curious, self-confident; 2) analysis, evaluation, conclusion; 3) clear, appropriate, specific, relevant, deep, logic. This characteristics stress that critical thinking can be said as thinking process by using dispositions and certain skills.

Critical thinking is conceptualized by cognitive constructivists such as Piaget (1969) and Gardner (2006) as well as by social constructivists such as Vygotsky (1978), Palinscar (1998), and McCarthy (1992). The difference of their studies is that cognitive constructivists highlight criticality in formal individual meta-cognitive, while social constructivists focus it on the importance of cultural, social, and individual domains. Shephard (2000), in O'Neill (2009: 38), explained that social constructivist frameworks, which draw on revolutionary theories in cognition and socio-cultural theories, have created a contrasting set of assumptions about education, including the following: 1) society and culture influence the development of intelligence, 2) knowledge and understanding are constructed by learners within a social context, 3) meta-cognition is a critical component of learning, 4) prior knowledge influences new learning, 5) all students can learn and should have the opportunity to learn, 6) material should be challenging and promote higher-order thinking and problem solving, and 7) learners should be socialized into academic disciplines' discourses and practices. So, critical thinking seemed to be argued by both cognitive and social constructivist scholars.

As an approach, critical thinking linked with the informal logic movement and frequently associated with critical thinking in education (Johnston et al, 2011: 21). Critical thinking approaches usually assume that students are deficient in their ability or disposition (finding the truth, open-minded, self confident, curious, etc.) to 'discern certain kinds of inaccuracies, distortion, and falsehoods' (Burbules, et al., 1999 in Johnston, et al., 2011: 21). With proper training, the appropriate skills and dispositions will develop. Critical thinking approaches focus on the processes and skills of reasoning, rather than substantive content.

### Why is Critical thinking Important?

According to many liberal scholars, higher education is about: 1) the pursuit of 'truth', through critical investigation; 2) the expansion of the student's outlook; 3) the development of the student's capacity for social and civic interaction; and 4) the development of the student's general intellectual capabilities (in Johnston, 2011: 16). Based on this opinion, higher education generally functions to enrich students' intelligence in order they could develop their capacity in social interaction.

University as one of the higher education institutions is responsible for intellectual development to solve the problems of life. In this context, critical thinking is needed for studying deeply the core of the problem before attempting to find solutions and to take an action. Thus, critical thinking in university level of education is important to teach because of two fundamental reasons: intellectual capacity building and problem-solving capability developing.

One of the opinions of the purpose of critical thinking in higher education is given by Barnett (1997). For him, higher education especially in its mass form can have a powerful influence within society by promoting the critical capacities of university graduates. He proposed that criticality be understood over a range of domains (knowledge, self, and the world), and that there are three forms of critical being: 'critical reason, critical self-reflection and critical action'. Barnett argued that focusing attention on the three domains highlights the varying objects that critical thinking can take and the purposes it can fulfill. Moreover, he suggested that these domains have to be brought together if a unity of critical outlook is to be achieved. The underlying purpose of higher education and educators, in this vision, is to develop 'the capacities to think critically... to understand oneself critically and to act critically' and so to form 'critical persons

who are not subject to the world but able to act autonomously and purposively within it' (in Johnston, 2011: 18).

Meanwhile, Tilaar (2011: 17) points out that critical thinking is important to modern education for several reasons:

- 1) developing critical thinking in education means to give appreciation to the students (respect to person);
- 2) Critical thinking is regarded as an ideal purpose of education because of directed maturity (self-direction);
- 3) The development of critical thinking in pedagogical process is a traditional ideal through which it is achieved in sciences;
- 4) Critical thinking is extremely needed in political, social, and economical matters.

Based on the above opinions, it can be said that the purpose of teaching critical thinking at university is making students to be critical persons on 'reading their social environment' and on making decisions to solve problems. The students are also encouraged to conduct the appropriate actions with logical arguments. To sum up, critical thinking is taught in order the students could obtain good reasoning for an appropriate action.

### Building Critical Thinking through Reading and Writing Process

Teaching critical thinking could be done in four phases: speaking, listening, reading, and writing. However, these four skills should not be given separately with the disciplinary subjects. In practice, these skills could be engaged to any teaching materials. In teaching the concept of 'volcanic explosion', for example, a lecturer could motivate the students to ask some questions to build

understandings, such as what a volcano really is, why and how the explosion occurs, what action that could be done when the explosion happens, and so forth. Such problem-based learning is useful as the prior step to critical thinking.

Reading and writing are commonly used as means in building and developing students' critical thinking at university. Meanwhile, speaking (verbal skill) and listening should be given in high school. So, these two skills should be well-built when the students enter upon a higher education level.

By reading, the university students could be given various academic texts. The students should be familiarized with the texts. Therefore, in the earlier semesters (I-III), the students could be directed to *active reading (reflective reading)*. This kind of reading helps the students starting to recognize opinions and arguments. Active reading refers to reading texts by relating the subject we read to our experience and prior knowledge. In active reading, the students could also make some reflections of arguments they encountered. The classroom activities that could be designed are *seminar, oral presentation, and class discussion*.

When the students have been familiar with academic texts, they could be encouraged to *academic reading* in the following semesters (IV-VIII). Reading academically refers to reading the texts critically by interrogating the writer's opinion through the text and by analyzing the coherence of the text, the strength of the arguments and its relevancies, illustrations, and the proofs that are used by the writer (Fairbairn and Fairbairn, 2006: 153). This kind of reading helps the students to develop their points of view and supporting arguments. The step is also important to exercise the students to write what has been read. Lectures could give the students post-reading tasks, such as *resume, summary, intellectual diary,*

and so on.

Besides reading, writing is one of the useful skills to build students' critical thinking. Some experts and researchers' studies show that teaching and learning writing in higher-level education is a process in which students are involved in building knowledge and communicate their knowledge to others. Hyland (2003: 27) states that teaching writing is teaching process knowledge. Cumming (2006: 15), in addition, wrote the conclusion of Sternglass' research (1997) that the four general purposes of writing in university courses are to make knowledge conscious, to help remember facts, to analyze concepts, and to construct new knowledge. The result of the research showed that students primarily used writing in university courses to develop critical reasoning skills over the period of their degrees. Considering writing in university settings, Bean (2001) states that it is a potentially powerful lever for teaching and for developing students' voices (in Murray and Moore, 2006: 132). In particular, Weigle (2009: 5) argues that writing is seen not just as a standardized system of communication but also as an essential tool for learning. Thus, in higher education environment, writing and critical thinking are seen as closely linked, and expertise in writing is seen as an indication that students have mastered the cognitive skills required for university work.

In reality, however, teaching and learning writing to university students in Indonesia is still focused on linguistic aspects, such as how to write in accurate grammar and in appropriate tenses, vocabulary, and punctuations rather than on how to formulate ideas. In addition, the students often fail to criticize the facts and informations. As a result, they fail to communicate their ideas to others, even to criticize the facts.

Writing is not only an outcome of thinking, but it also helps to feed the thinking process, and to give rise to

new insights and angles on the material (Murray and Moore, 2006: 26). Writing activity, then, cannot be separated from thinking. D'Angelo (1980: 5) even states that writing is a form of thinking for particular audience and for particular occasion. Moreover, it is a socio-cultural phenomenon. Hull and Rose's research (1990) shows that understanding writing, like any language use, depends on the socio-cultural context. They report, "while we may perceive writing as less dependent on context, accurately reading and evaluating it demands extra-textual knowledge because written language is created, read, and interpreted within particular context (in O'Neill, 2009: 40). So, writing involves thoughtful process in which non-linguistic aspects (genre, logic, rationality, context) could be communicated with. Activities that could be done in the classroom are *writing conference, workshop, writing presentation, discussion, review, etc.*

Thus, the teaching and learning at university are not only to teach the students to be able to read and write the texts, but also to make them to take an action. To illustrate this, a student who sweeps the floor because of schedule is different with a student who sweeps the floor because he/she wants to clean it. The first student does the action because of the rule. Meanwhile, the second student does that because of critical consciousness of cleanliness, and not because of normative rule. Shortly, the teaching and learning at university must touch conative ability.

## CONCLUSION

University is a higher level of education that takes responsibility to solve the problems of life. As an academic institution that produces the experts, university must be able to build and develop criticality in understanding the problematic issues in society. Therefore, the teaching and learning at university should encourage critical literacy in

which it is capability in understanding social context and consequences of the given problem to find the meanings of the facts and circumstances. This capability can be achieved if critical thinking occupies the process of teaching and learning.

The teaching and learning of critical thinking needs dialogic process between the lecturers and the students in which the lecturers and the students are in the similar position. In this way, there will not be the gap between them. The take and give-process will enable the lecturers and the students involves in warm discussion, exploration, elaboration, and collaboration.

Last but not least, building critical thinking at university could be implemented in the classroom. Although challenges and obstacles are still found, the action in building critical thinking is urgently recommended at Indonesian universities because building social consciousness is a must for any disciplines. It means that the teaching and learning at university must be designed to make social changes.

## REFERENCES:

- Cumming, Alister (Ed.). (2006). *Goals for Academic Writing ESL Students and Their Instructors*. Philadelphia: John Benjamins Publishing Company.
- D'Angelo, F.J. (1990). *Process and Thought in Composition*. Cambridge: Winthrop Publishers, Inc.
- Fairbairn, Gavin J. And Susan A. Fairbairn. (2001). *Budaya Baca di Universitas Tuntunan Bagi Mahasiswa untuk Meraih Prestasi*. Trans. Frans Kowa. 2005. Jakarta: PT Indeks.
- Hyland, Ken. (2003). *Second Language Writing*. Cambridge: Cambridge University Press.

- Johnston, Brenda, et al. (2011). *Developing Student Criticality in Higher Education*. New York: Continuum.
- Moore, Brooke Noel and Richard Parker.(1986). *Critical Thinking: Evaluating Claims and Arguments in Everyday Life*. Mayfield Publishing Company.
- Murray, Rowena and Sarah Moore. (2006). *The Handbook of Academic Writing A Fresh Approach*. New York: Open University Press.
- O'Neill, Peggy, Cindy Moore, and Brian Huot. (2009). *A Guide to College Writing Assessment*. Utah: Utah State University Press.
- Tilar, H.A.R.(Ed). (2011). *Pedagogik Kritis Perkembangan, Substansi, dan Perkembangannya di Indonesia*. Jakarta: Penerbit PT Rineka Cipta.
- Tjandra, Oentarini. Pembekalan dan Panduan Berpikir Kritis untuk Program Pengembangan Staff Akademik. *Akademika*. 1(1): 51-68.
- Weigle, Sara Cushing. (2002). *Assessing Writing*. Cambridge: Cambridge University Press.