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ENHANCING CRITICAL THINKING THROUGH THE USE OF TERM PAPERS

Review by Diana M. Nomanbhoy

INTRODUCTION

Critical thinking as defined by Ennis (1985 p.46) is “*reasonable, reflective thinking that is focused on deciding what to believe or do.*” These skills, according to Perkins (1987), equip an individual to gather, interpret and evaluate information accurately and efficiently. Beyer (1988, p.57) has identified several activities that require critical thinking all of which are essential for making well-informed and rational decisions. These activities include:

- *distinguishing between verifiable facts and value claims*
- *distinguishing relevant from irrelevant information, claims and reasons*
- *determining the factual accuracy of a statement*
- *determining the credibility of the source*
- *identifying ambiguous claims and arguments*
- *identifying instated assumptions*
- *detecting bias*
- *identifying logical fallacies*
- *recognising logical inconsistencies in a line of reasoning*
- *determining the strength of an argument or claim*

Discussions about critical thinking have often revolved around how poorly the above mentioned skills are developed and utilised by many individuals. Business leaders have expressed the opinion that those skills affect graduates’ ability to speak and write efficiently, learn on the job

and use quantitative skills. These concerns are genuine in light of the increased need for such critical thinking in the future since many jobs will require complex learning skills and the ability to adapt to rapid change. In addition to the business community, there have also been concerns expressed within political arenas that adequate critical thinking is necessary for citizens to make well informed decisions and to behave in a rational manner to meet national needs and personal rights (Machado, 1980; Nickerson, 1988) and to minimise reactions based on emotions. The latter could result in negative effects such as chaos and mayhem.

Adequate critical thinking is necessary for citizens to make well-informed decisions and to behave in a rational manner to meet national needs and personal rights.

ELEMENTS OF CRITICAL THINKING SKILLS

Learning to think critically requires practice, and this practice needs to occur in all the elements of critical thinking: basic processes for thinking, domain specific knowledge, metacognitive knowledge and appropriate attitudes and dispositions (Nickerson, 1988).

Basic processes are the building blocks of thinking. Observing, finding patterns and generalising, forming conclusions based on patterns and assessing conclusions based on observations constitute these building blocks. Domain specific knowledge is the content in a given area on which a person focuses thinking skills. The latter is essential since thinking effectively in any area, requires one to know something about the domain. Metacognitive knowledge refers to the knowledge of knowing when to use the different basic processes and how they relate to domain specific knowledge, and why they are being used. Strong metacognitive skills allow for efficient adaptation of strategies. Appropriate attitudes and dispositions are also necessary as they affect how and when the thinking skills will be used. All of the above mentioned elements need to work concertedly in order to allow for successful critical thinking.

In addition to practising the above mentioned skills, there is also the need to encourage the acceptance of divergent perspective and free discussions. There should be emphasis on giving reasons rather than only giving correct answers.

Writing can serve as an avenue for practising critical thinking since writing is a process of continually making judgements.

USING TERM PAPERS TO ENHANCE CRITICAL THINKING SKILLS

Writing is a process that requires students to make decisions about what to say, how

to say it, whether the presentation is clearly organised and carefully developed, when an argument is complete or whether it requires further support (Twining, 1991). Clearly, writing is a process of continually making judgements (Henschen, & Sidlow, 1990) within a particular domain or topic and as such can serve as an avenue for practising critical thinking since basic to the idea of critical thinking is the ability to make good judgements.

The writing of term papers can be a particularly fruitful exercise for pupils to practise critical thinking skills. Unlike shorter writing assignments such as answering essay questions during an examination, term papers (essays which are submitted at the end of a term or semester) require students to investigate a particular topic in depth. They allow students greater opportunity in taking charge of the assignment since they often have a choice of topics, a choice of research to select from to substantiate arguments, and extended time of one term to judge and consolidate ideas. According to Twining (1991) writing a term paper requires students to go through a systematic sequence of events consisting of planning, exploring, and organising information; followed by drafting and composing the information into written form; then revising and reworking the composition into a finished presentation; and finally self-monitoring, checking and reviewing the success of the process.

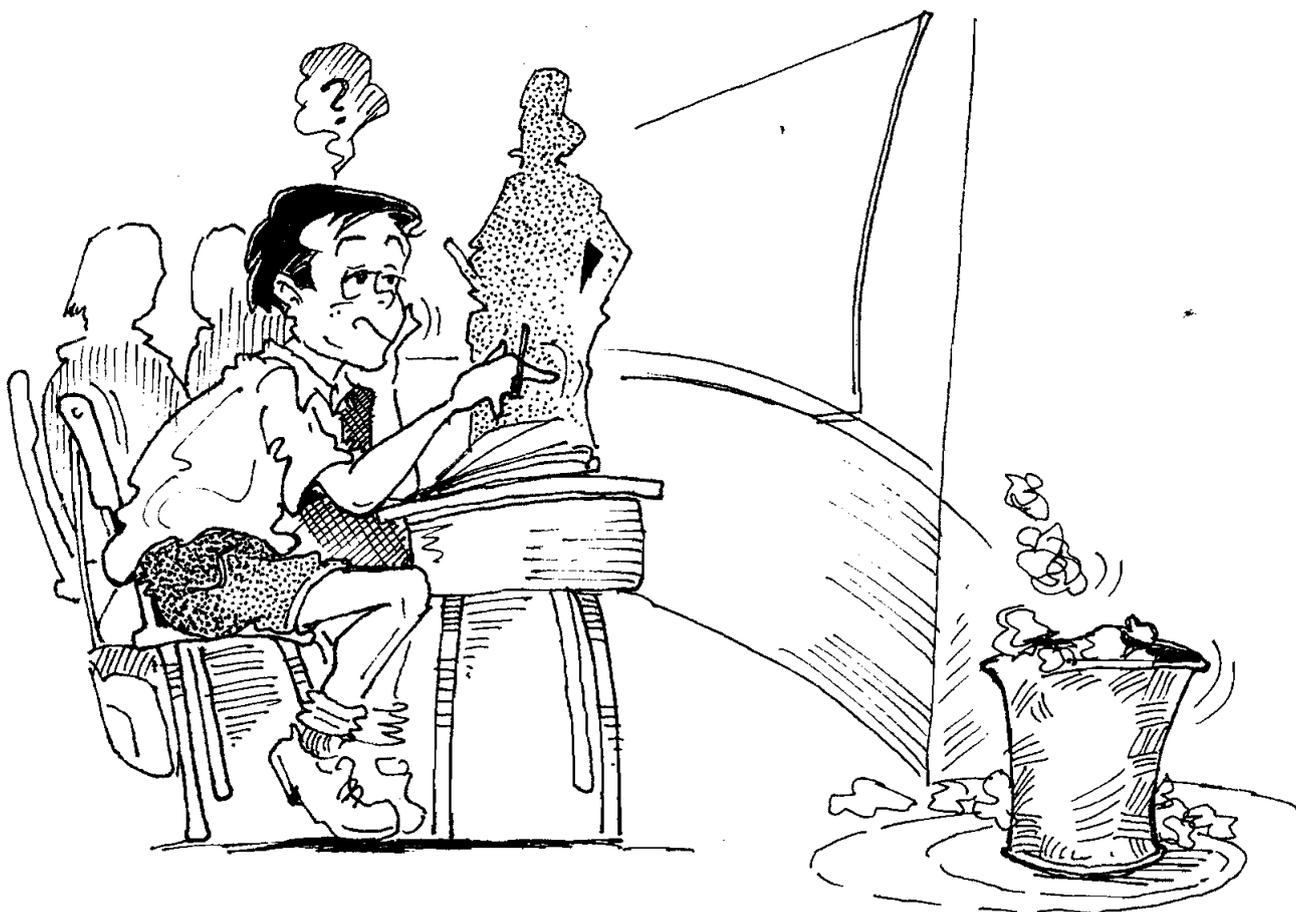
Planning, Exploring and Organising

It is during the initial preparatory stages that many of the elements of critical thinking skills can be practised. This

planning stage requires the selection of a topic. In order to limit the topic the student needs to look at the larger subject from different perspectives. In other words, a good command of the domain specific knowledge is necessary. More often than not, the gathering of domain specific knowledge for term papers occurs through research and reading of materials available. The reading process, itself can further serve as a platform to practise critical thinking since a series of critical thinking behaviours are required when reading. For example, students need to recognise and comprehend the stated facts in the text; they need to organise the facts according to importance; they need to go beyond what is explicitly stated in the text and infer implied meaning and hypothesise based on information, logic and personal experiences. Additionally, students need to make judgements and evaluations based on their

own experiences, knowledge and values. With regard to the latter, students need to identify the author's conclusion, determine what evidence is presented, determine the trustworthiness of the author and identify faulty arguments. Thus, the reading process could potentially also allow students practice to judge critically what they read.

Once the necessary background information is obtained, only then can a student select an appropriate topic and make a list on what information to use, to support and how to explain it (Twining, 1991). Thus, the planning stage not only requires good use of domain specific knowledge but also the components of the basic processes mentioned previously such as forming conclusions based on information provided and assessing conclusions based on personal experiences and observations.



Drafting, Composing, and Checking

The next stage of the writing process involves the actual drafting of the paper. At this stage decisions about how to present ideas in a coherent and logical manner are made. It should be noted that decisions about what to say should have already been made during the planning stage of writing. (Twining, 1991). Finally, when revising a paper the goal is to improve the paper's organisation and development and to correct any faults in grammar, punctuation, spelling and style (Twining, 1991). Throughout the writing process, there is a constant need to self-monitor, check and review the success of the writing process; and the latter are part of one's metacognitive strategies.

In order to use term papers as a tool for developing critical thinking, students need to take charge of their learning and become aware of how to think about a particular

topic. They also need to plan how they will convey their message and monitor and evaluate their writing to make sure that their message being conveyed is as planned.

CONCLUSION

Term papers are an alternative way for instructors to not only involve students in some particular aspect of a subject but also provide opportunities to sharpen their reasoning skills and promote critical thinking by analysing a subject in detail and creating well-organised presentations (Twining, 1991). If learners are to be strategic and self-regulated, they must be able to use the information they possess to analyse and evaluate ideas and to construct solutions to problems and writing term papers could offer the necessary practice that is required. However, appropriate instruction in researching and writing term papers is necessary.

IMPLICATIONS

Two considerations have to be made if term papers are to facilitate critical thinking.

1. *Specific attention to the nature and aims of the paper need to be given.*

The aim of the paper should not only be on the regurgitation of facts but also the consolidation of ideas and presentation of personal opinions about a particular topic. Consider these two contrasting examples:

Example a:

Select a particular disability of interest to you. Elaborate on the physical, learning and behavioural characteristics of the disability as well as the educational services available in Singapore to cater to individuals with that disability.

Example b:

*You are required to submit an in-depth discussion of the following statement:
“The current special education system in Singapore sufficiently caters to
individuals with _____.”*

(Fill in the blank with an area of disability of interest to you).

*To what extent do you agree/disagree with this statement? Justify your
discussion.*

In the case of the first example, the writing process becomes mechanical and will defeat the purpose as serving as a tool for developing critical thinking skills. Students will not be encouraged to critically judge and evaluate facts and opinions of others. The second example however, not only requires the student to present relevant facts of a particular disability and the educational services provided, but also consolidate, analyse and judge critically the information gathered.

- 2. Students may need to be guided systematically through the process. In the initial stages, how to gather data through research and reading and critically evaluate this information may be necessary.***

Additionally, instructors may also need to provide *feedback* that serious written work deserves (Keim, 1991). For example, having students submit written proposals for their topics by the end of the second or third week, would encourage them to start their research early and would allow the instructor to check students' progress (Keim, 1991). The necessary guidance could then be provided to help them improve their thesis by suggesting alternative readings and points of view.

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