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**Title:** Searching for commonalities in the teaching of critical thinking skills, from Masters' to sixth form to primary

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**Example citation:** Underwood, M. J. (2015) Searching for commonalities in the teaching of critical thinking skills, from Masters' to sixth form to primary. Paper presented to: *The University of Northampton Education Partnership Conference 2015, The University of Northampton, School of Education, 01 July 2015.*

**Version:** Accepted version

<http://nectar.northampton.ac.uk/7634/>



**Searching for commonalities in the teaching of critical thinking skills, from  
Masters' to sixth form to primary.**

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**1 July 2015**

Abstract

This discussion paper was written for the participants at the *University of Northampton, School of Education Partnership Conference 2015*. It was written in order to facilitate discussion about the teaching of critical thinking skills. In this paper I first describe a small project involving four current teachers and one lecturer regarding the teaching of critical thinking skills in their specific context. The project involves looking at how this is done across a wide range of age groups and searching for teaching strategies and approaches that can inform teaching in other contexts. I first identify issues and challenges that this small group identified in terms of teaching critical thinking. I then describe and discuss a workshop for primary teachers where I presented two strategies commonly used in the secondary and sixth form classroom. I refer to their responses as to whether these strategies could also be relevant for the primary classroom. The two strategies referred to are the *origin, purpose, value, limitations* approach to using sources and the *zones of relevance* (Counsell, 1998) approach to planning essay writing.

## **Introduction**

This paper describes an informal project that currently involves a two primary teachers, two secondary teachers and one university lecturer (*the author of this paper, James Underwood, Principal Lecturer, teachers' CPD at the University of Northampton*). It specifically describes the first workshop to be held as part of this emerging project. This project has no formal funding and the method of dissemination is likely to be staff training days in schools and school based self-published journals. This fits very much within a philosophy of doing educational research at multiple levels and disseminating this research in a variety of ways, many of which may stand outside conventional academic forms of dissemination. This is an area of interest for me and my colleague (Selena) Yanyue Yuan and we have previously run workshops on this theme of alternative forms of dissemination (Yuan and Underwood, 2015). However, students I am working with have expressed an interest in this project and it is also possible that a Masters' student or more than one may decide to explore an aspect of this project in detail and that this may form the basis of a Masters' thesis. Finally this project and the accompanying discussion are open to all viewpoints and participants. Therefore if upon reading this you become interested in any way in contributing ideas or thoughts towards it please do get in touch.

## **Issues with teaching critical thinking**

This project started with an informal meeting between five people all of whom are currently teaching in the UK. As mentioned above one James Underwood (who chaired the group) is Principal Lecturer for teachers' CPD at the University of Northampton. The others consisted of two secondary school teachers and two primary teachers. In this initial discussion we identified a series of issues that were emerging in our sectors. These are as follows:

- a need to find ways to teach high level critical thinking skills
- a pressure to do this yet to also fulfil the needs of a crowded curriculum
- lack of knowledge regarding specific teaching practices in other sectors
- a tendency in sixth form and at university level for teaching to be increasingly didactic

- concerns among primary colleagues regarding how best to prepare students for the writing requirements of specialist secondary subjects.

### **The research/discussion questions**

Therefore based on these issues that we had identified we devised a set of discussion questions that we would address in a series of workshops held ad hoc but whenever opportunity arose in 2015 and 2016. These questions are as follows.

- Are there already commonalities in the ways that we teach critical thinking skills across a wide range of ability and age ranges from Masters' level to primary school?
- Are there lessons to be learnt from primary teaching strategies in terms of teaching at other levels including sixth form and Masters' level?
- Are there lessons to be learnt from primary practice in terms of teaching at higher levels: sixth form to Masters' level?
- In what ways can strategies from these differing teaching contexts be modified so that they are appropriate to our own teaching?

### **Workshops / sharing strategies**

The first workshop in this project was led by me (James Underwood) on 1st July 2015, as part of the *University of Northampton, School of Education, Partnership Conference*. There were nine attendees at this workshop of whom seven were, and still are, primary teachers and two were, and still are, secondary teachers. At this workshop two ideas for teaching strategies were presented. These are widely used teaching techniques when teaching sixth form history and other subjects at higher levels. The first involves analysing sources using the *origin, purpose, values, limitations* model. The second involves sorting facts and ideas into *zones of relevance* in preparation for essay writing.

#### ***Teaching strategy 1: the origin, purpose, values, limitations approach***

This was the first approach that I presented. I opened by explaining that this approach has its origins in the teaching of history at International Baccalaureate level to sixth formers but has spread far wider than this and is now common practice in a range of secondary contexts. Its

aim is to teach critical thinking skills without sinking into the inadvertent teaching of cynicism. It is also intended to move thinking among children so that it goes beyond simple dualities such as biased/unbiased, fact/opinion or accurate/inaccurate.

At the opening of the workshop I first placed on a screen the famous print by Durer of a rhinoceros (1515) (see below). I placed on another screen a picture of a real rhinoceros. Durer's picture is clearly not an accurate depiction of a rhinoceros. I then explained that he had in fact never seen a rhinoceros when he produced this print. I then guided the teachers through the four headings and under these I asked them to put their thoughts.

As we did this we discussed how in a simple binary classification of accurate/inaccurate fact/opinion or biased/unbiased Durer's rhinoceros would be dismissed as a poor quality source, as it tells us nothing useful about rhinoceroses. However, if approached via this four stage approach whereby every source of information has at least some value and every source has some limitations it is far more useful. This is because although it tells us very little about rhinoceroses it may tell us a great deal about medieval Germany and it may even tell us about values placed on art of different kinds today. In the first table below is a summary record of our discussion.

After this discussion I then presented them with a second source of information. This was the autobiographical account of life during the Holocaust 'Faces in the Smoke' (Benjamin. Perl & Kahan, 2001). I also presented them with a third, the academic history book 'The Price of Glory: Verdun 1916' (Horne, 1993). We similarly discussed these using this progressive format working through the concepts of: origin, purpose, value and limitation (see the tables below). At the end of this activity we discussed the usefulness of this strategy in the primary classroom. These are the reflections that emerged from this discussion.

- It could be modified to be used with younger children, the level of critical thinking is not too high.
- This kind of task may require more scaffolding with younger children
- It could be one tool to resolve the problem of teaching children to critically think, without teaching them to be merely cynical.

**Table 1: a summary of our discussion about Durer's rhinoceros**



*(picture obtained from flickr creative commons)*

Origin	An artist, Germany, late middle ages, a photographer today (who took this image of the original).
Purpose	To entertain, to inform, to prove wealth, to symbolically represent (but what?)
Value	It doesn't tell us about rhinoceroses but it does tell us about medieval Germany, which seems to be: a nation interested in the exotic, that perceived travel as a positive, that perceived Sub-Saharan Africa as exotic, that had some but limited knowledge of this area (there are some accuracies to Durer's drawing it was probably based on written descriptions).
Limitations	It doesn't tell us anything about rhinoceroses. We also decided that it left unanswered questions (implied limitations). These included such things as: is this image unique? Is it part of a series? Who was it drawn for? These are questions that we could potentially find an answer to.

**Table 2: a summary of our discussion about ‘faces in the Smoke’**

Origin	A holocaust survivor, a witness, an old man.
Purpose	Personal reasons (catharsis) to inform, to tell a story, to warn.
Value	A personal eye-witness account, detailed, emotional, involving,
Limitations	Specific – just one person’s story, written a long time afterwards, memories change, may not be typical. Could be verified by cross-comparing with other sources.

**Table 3: a summary of our discussion about ‘The Price of Glory: Verdun’**

Origin	An historian, an academic, published, peer-reviewed.
Purpose	To inform, to make money, to build a career, to educate
Value	Based on a range of sources, the benefit of looking back in time, as an historian - uninvolved, provides an overview
Limitations	A high level of selection, what is emphasised is his choice, no personal experience, could contain a personal, national or political bias.

### ***Teaching strategy 2: zones of relevance***

The next activity we looked at was the use of zones of relevance (Counsell, 1998). This is a strategy commonly used throughout secondary teaching but perhaps most especially when teaching history. The purpose of this activity is to encourage students to be able to give focussed answers to questions. Therefore we discussed at the very beginning of this stage of the workshop that able students will often learn tremendous amounts of factual material but then when given a specific question to respond to they will try to include all the facts they know rather than providing a clear, focused answer. A typical example might be that a student may be asked to write an essay explaining *the origins of the First World War* but will write at length about everything they know, including such things as *life in the trenches*. We therefore practiced this activity in a simple way based on one simple example topic 'England'.

At the start of this activity the teachers were given a large piece of card with an A4 sheet of paper glued to an A3 sheet, glued to an A2 sheet. This was then placed on the table. On the A4 sheet was written the word vital, on the A3 sheet the words important, on the A2 sheet the word relevant and on the table the word irrelevant (see photo below). The teachers were then asked to write, on separate post-its, all the facts that they could think of about England. They were then given these three questions and asked to move each fact into the correct zone based on responding to that specific question. The three questions asked were:

- Is England nice?
- Is England democratic?
- Is English culture distinct?

The reflections on this activity were again positive. The teachers found it interesting how each question provoked them to move facts that were centrally important to answering one question to the *relevant* zone or even the *irrelevant* zone when responding to other questions. They even remarked that this would be a useful task for their own Masters' level study and for preparing essays at the highest academic levels, perhaps even for managing time in their professional roles.

This time it was felt that this could be more directly used in the primary classroom with relatively little modification. They also felt that it could be used across a wide range of subjects with: English, science, citizenship as well as the humanities all being mentioned.



**Photo: zones of relevance laid out ready for the fact cards to be sorted onto them.**



### **Concluding remarks**

It seems that these strategies from typical workshops at a higher level in this case specifically sixth form are transferable to the primary classroom. This workshop was a great success and we look forward to broadening this project and to engaging in discussions with others around these issues. We would welcome debate and discussion so please get in contact with any questions or thoughts.

## References

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