Reflective Learning:

Seeking metacognition in reflective practice

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Outline

- Part 1: First steps – thinking skills
  Initial matrix development

- Part 2: Graduate Diploma reflective learning project
First steps – thinking skills & initial matrix development
Thinking skills teaching can either be augmented within the subject curriculum or be taught as an independent dimension.

It involves a great degree of honesty from the participants and teachers and the ability to be a good listener (Fisher, 2003; Lipman, 2003)
Some aspects of thinking

- Considering language / vocabulary
- Solving a problem
- Considering something
- Critical thinking
- Comparing / contrasting viewpoints
- Reaching a conclusion
- Being able to recall factual information
- Recognising and adapting to procedures

- Metacognitive thinking / learning through talk
From the revised version of Bloom’s Taxonomy for Learning
Divides knowledge into four categories
Identifies six areas of cognition (this version uses more active statements)
Suggested uses include for course review by staff and identifying areas of S & W
It is not expected to be a complete checklist
# Methodology (AR)

<table>
<thead>
<tr>
<th>The knowledge dimension</th>
<th>The cognitive process dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remembering / recalling information</td>
<td>Understanding meaning (could clarify, categorise, summarise, conclude, contrast or explain)</td>
</tr>
<tr>
<td>Applying a procedure to the task</td>
<td>Analyse important from irrelevant points / determine a point of view in discussion</td>
</tr>
<tr>
<td>Evaluate – judge which process is the best / determine if the result comes from a logic</td>
<td>Create a hypothesis / a procedure for completing the task</td>
</tr>
</tbody>
</table>

- **Factual knowledge**
- **Conceptual knowledge** *(theories, systems, etc.)*
- **Procedural knowledge** *(how to do something, e.g. write an essay)*
- **Meta-cognitive knowledge** *(knowing strengths & weaknesses, etc.)*
Key questions for investigation

1. What impact does the recording and monitoring of self study have on a language learners’ awareness of metacognition?

2. How do thinking skill activities aid in raising the development of metacognition for learners on a pathway programme? Do they provide opportunities to enhance the levels of autonomy?
Key questions for investigation

Metacognition for the purpose of this enquiry was:

- awareness of strong – weak areas of language skills & strategies to develop them
- ability to evaluate elements of difficulty & identify techniques / resources to improve
- ability to evaluate skills required / covered by classes & the shortfall for self study
Overview of outcomes – Q2

Figure 1 Participant knowledge and cognitive processing using a traffic light system (green is the strongest) based on evaluation sheet after the task

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<td>Meta-cognitive knowledge</td>
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Adapted from Anderson & Krathwohl’s cognitive process matrix, 2001
What will you (students) do differently next time?

- “I will try to discuss ideas using a different approach next time to see how it works for my role and understanding of the ideas.”

- “I will try to forge my own style of working within a group.”

- “I will try to be more aware of this weakness (taking into account the opinion of others) because I consider working in a group to be an asset to everybody.”
Overview of outcomes

- Some confusing language on the matrix (‘analyse’ and ‘evaluate’)
- More time needed for the debrief
- Record the session/debrief & transfer to BB

- Programme focus – too much on subject & procedural knowledge
- More engagement / constructive talk from TS activities than traditional lessons
Part 2
Graduate Diploma reflective learning project
Reflective learning can take many forms such as feedback (oral and written), journals, tasks that require evaluation of the learner’s knowledge / skills, action–based reflection and an end of task / module / programme review (Brockbank and McGill, 2007; Stefani et al, 2007; Schunk and Zimmerman 1998)
Reflection

- It needs to be thought of as a linear process from behaviourism to cognitivism (Nichols 2002; Brockbank and McGill 2007).

- Do you agree with this? Why / why not?
The Graduate Diploma project

- It involved two main elements: a blog and a matrix
- The blog was completed at the end of each EAP and UKIC class (later extended to all classes in phase two)
- The matrix was completed once a week (here it is...)
The quantitative data has not been analysed yet – hopefully this will be done over the next 4–6 weeks.

There has been a micro analysis of qualitative data, some of which is presented on the following slide...
<table>
<thead>
<tr>
<th>Sub theme</th>
<th>Theme</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caring about teacher input</td>
<td>Friendship and social interaction</td>
<td>13</td>
</tr>
<tr>
<td>Metacognition</td>
<td>Reflection</td>
<td>13</td>
</tr>
<tr>
<td>Teamwork and groups</td>
<td>Friendship and social interaction</td>
<td>12</td>
</tr>
<tr>
<td>Self Criticism</td>
<td>Learning performance</td>
<td>12</td>
</tr>
<tr>
<td>Description of learning/activities</td>
<td>Reflection</td>
<td>12</td>
</tr>
<tr>
<td>Goal setting / advice</td>
<td>Reflection</td>
<td>9</td>
</tr>
<tr>
<td>Happy</td>
<td>Feelings and emotions</td>
<td>7</td>
</tr>
<tr>
<td>Achievements</td>
<td>Learning performance</td>
<td>7</td>
</tr>
<tr>
<td>Caring for peers</td>
<td>Friendship and social interaction</td>
<td>6</td>
</tr>
<tr>
<td>Weather / climate / surroundings</td>
<td>Environment</td>
<td>6</td>
</tr>
<tr>
<td>Workload</td>
<td>Reflection</td>
<td>6</td>
</tr>
<tr>
<td>Time (of day and of year)</td>
<td>Environment</td>
<td>4</td>
</tr>
<tr>
<td>Procedural Knowledge</td>
<td>Reflection</td>
<td>4</td>
</tr>
<tr>
<td>Friends and social interactions</td>
<td>Friendship and social interaction</td>
<td>3</td>
</tr>
<tr>
<td>Tired</td>
<td>Feelings and emotions</td>
<td>3</td>
</tr>
<tr>
<td>Relaxed</td>
<td>Feelings and Emotions</td>
<td>2</td>
</tr>
<tr>
<td>Anxious / concern</td>
<td>Feelings and emotions</td>
<td>2</td>
</tr>
<tr>
<td>Temperature</td>
<td>Environment</td>
<td>1</td>
</tr>
<tr>
<td>Upset</td>
<td>Feelings and emotions</td>
<td>1</td>
</tr>
<tr>
<td>Encouragement</td>
<td>Feelings and emotions</td>
<td>1</td>
</tr>
</tbody>
</table>
Patterns of general themes

- Friendship and social interaction
- Environment
- Feelings and emotions
- Learning performance
Subthemes of reflection

Week 2

Week 6

Week 11

Metacognition
Goal setting / advice
Description of learning / activities
Workload
Procedural Knowledge
The self criticism theme suggests an awareness that is also quite metacognitive at times, for instance:

- When I finished the listening, I found several shortcomings for myself. Firstly, in honest I cannot focus my attention to the test at the beginning because of the lack of practices of listening.

(Appendix A, Monday 12/12/2011)
Some blog examples...

- There is another good example of some metacognitive thinking when she talks about a moment of realisation in her learning in regards to note-taking:
Another more important thing was what we learned today. Taking notes was always treated as an easy thing for me in my mind. I was used to circle some words like the unknown vocabulary and key words in one article or a chapter. Till today I found that some informations I marked were not related closely to the purpose you should focus on. I just highlighted the words as a habit, however, sometimes the notes I got did not work for my understanding. And usually I will not organize them. The notes are scattered often. In the class, I learned some new methods to take notes different from that I just use only one style before. It must be valuable for articles and books which have different structures.

(Appendix A – Wednesday 9/11/2011)
In this case the student has taken the information from the classroom and is going to use this to change her approach to note taking (behaviourism), thereby enabling her to use note taking as a mechanism to learn.

While she is doing this, it seems that one of the main reasons is to organise the content so that the concepts are presented in a way in which she could consider them in a more constructive way (cognitivism).
Finally...

To conclude:

- The use of reflective tools seem to have provided some level of metacognitive awareness

- Much analysis is still needed – if you are interested in following my work, please keep in touch
References (for presentation)


Thank you for listening

Do you have any questions?

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