Interactivity Tools in Online Learning

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Introduction

Online education and face-to-face instruction have different pedagogical approaches. However, these approaches are not always clear to the instructor as he may have to embark on online education without much training or exposure to online pedagogy. Carliner has touched on the characteristics of online classroom design that are different from face-to-face instruction. To the instructor however, these characteristics may not filter down to much when applied in the classroom. The instructor's bottomline would be: how to improve interactivity in the classroom.

Aim

The most common type of interactivity in online education would be linear interactivity. You can go to the content that you are looking for by clicking on a specific word that will bring you to the page with that word. The problem that would arise is that learners often suffer from user disorientation. Backtracking does not help much in helping students gain an overview of what they have read or learnt as it is often a manual task of "turning pages" rather than revision and summary. Therefore, this paper proposes to improve students' learning by using three interactive tools i.e. thinking questions, hierarchical chart and checklist.

Thinking Questions

In an online environment, the chat-room is a favourite among students where they can discuss their work. The headache often comes when the teacher asks the students to pose questions to the teacher in the chat-room. The discussion will often get very confusing with a lot of students (20 in a class, for example) going online having discussions with each other, each asking their questions but not getting an immediate answer or no answer at all. Although students are asked to put down their initials as a means of identification, they often end up not knowing who they are talking to. Furthermore, questions are quite varied and by the time they have someone else in the class answering the question, learners may have forgotten that they even asked the question. In addition, learners would find tracing the answer to their questions through the long conversation very daunting. Hence, the chat-room is not learner-friendly. For the lecturer, the task of monitoring students' discussion and answering questions would be even more enormous.

A way to motivate students to do a guided discussion online would be to have thinking questions in the course notes. Students would be divided into discussion groups of four or five so that the discussion can be better managed. To make the discussion more fruitful, the lecturer can specify the thinking question and post it as an announcement for that week for discussion. To further consolidate learning, each student in the group will take turns to write a summary of what have been discussed and learnt for that particular week for his group and also the lecturer. Hence, the discussion is focused and progressive, in parallel with what is being taught for that particular week. The thinking questions not only serve as an online tutorial, but also train the students to be enquirers rather than passive learners (Lee,2000).

Example:

In a Report Writing course, on the chapter "How to write a good paragraph"

Thinking Questions:

1. How did the audience and purpose of the report affect your writing?
2. Just experiment by replacing the main point, coordinate and subordinate with anything that comes to your mind and then try to write out a paragraph that would start with the main point and end with the subordinate. What is your result?

Hierarchical Charts

Hierarchical charts are also useful graphic organizers to improve interactivity (Lee, 2000). Hierarchical charts are different from table of contents or even concept maps. The table of contents would list down the topics covered in the course notes according to their different level of headings. Concept maps would have concepts related to one another by connecting lines, specifying the relationships between the two concepts (Novak, online). Hierarchical charts on the other hand, are basically keyword based. The lecturer can provide these keywords in the beginning of each chapter. As students become more familiar with how hierarchical charts are used, this scaffolding can be withdrawn. Students will put these keywords into a hierarchy, very much like a tree branch. They do not have to specify the relationship between the two keywords as it may become very tedious and similar to taking notes. However, they need to be able to see how the keywords relate to one another to be able to use the tree branch hierarchy (which is the subset and which is the main idea). In short, we are using the concept of the table of contents where topics are clearly defined and indented according to their level of heading and also the concept map where the concepts are related to one another using connecting lines.

Example:

On the chapter "How to write a paragraph", the keywords could be topic sentence, coordinate, subordinate, topic and controlling idea. The hierarchical chart would thus look like this:

Hierachical Structure on How to Develop a Paragraph
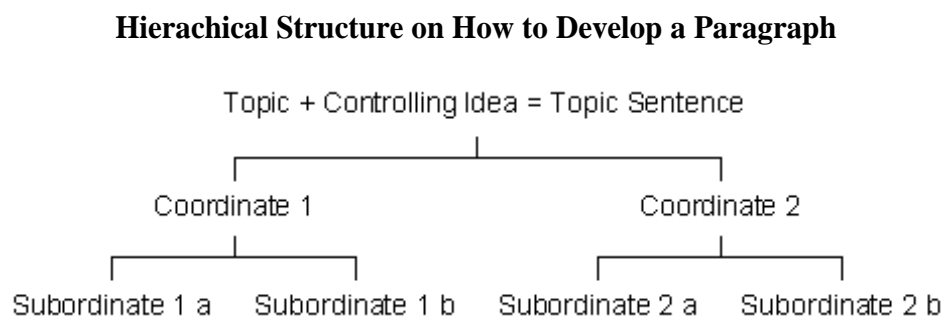
Checklist

To encourage students to evaluate their learning themselves and at the same time improve interactivity, it would be useful to have students draw up a checklist of the processes they went through to achieve their end goal. The checklist would enable them to reflect on their learning process and design their own learning procedures. These procedures when brought to consciousness can then help the student handle a similar task in the future (Wenden and Rubin, 1987).

Example: A checklist for revising reports

- a) report level
    - ( ) does the outline show that the report has managed to achieve its purpose?
    - ( ) is there a consistent organization?
    - ( ) is there a logical flow of ideas?
    - ( ) are there overlapping or redundant points?
    - ( ) are there appropriate transition words between paragraphs?
- b) paragraph level
    - ( ) do the headings have parallel structure?
    - ( ) is there cohesion?
    - ( ) is there unity?
    - ( ) is there fluency?
    - ( ) are appropriate transition words used?
- c) sentence level
    - ( ) is there varied sentence structure?
    - ( ) does it have a correct tone?
    - ( ) is it concise?
    - ( ) is it exact?

- ○ ( ) is it clear?
- ○ ( ) does it have correct usage of spelling and punctuation?

Conclusion

Interactivity is not a given in online education. It often involves a lot of planning on the part of the instructor and proper usage of online tools. It is hoped that using thinking questions, hierarchical chart and the checklist would encourage deep learning and hence produce thinking students.

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