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Spiral Curriculum

Following the guidelines of American Psychological Association

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Abstract

Reading makes a man perfect. Reading for pleasure is different from reading for serious purposes such as to gather information for conceptualizing any topic. The latter is essential for tech students, but unfortunately many are not adapted to this type of reading. English for specific purpose aims at it. Planning a spiral curriculum and spiral teaching for technical reading is expected to have a good outcome.

Spiral curriculum unlike the traditional curriculum moves from easy to difficult. A topic is chosen that moves from basic facts to complexity but revisiting the basic facts every time thus offering reiterate of understanding the concepts. This can be done in three layers of reading – browsing, scanning and skimming.

Keywords: *Technical Reading, Conceptualizing, Inferring, Spiral Curriculum*

Introduction

Curriculum and syllabus are the two sets of process in any teaching-learning process. It is more than simply listing the contents of the course. It takes into consideration that the students achieve through learning and also the activities that are related to it. It also involves the planning of these activities and the experience of preparing modules for it. The curriculum is to be built based on the training required for a particular profession while the syllabus dovetails about the content and the subjects related to it. In spite of the changes in the modern educational methods, many educational institutions keep distance about theorizing the teaching learning process. There are some who speak about these changes but they are only structural not conceptual. In general

educationists like Miller, Turner and Innis have advocated ‘curriculum-led institutional development’ for change

In many educational institutions the curriculum planning rests with elite group of teachers and government officials which center around the content of the subject. It is based on the assumption that these only are aware of the external environment, but the subject related teaching staff are not considered. They ignore their input, as Taylor points out, the curricula developed like this fail to give guidance to both teachers and learners how this can be facilitated. Hence the autonomy of the teachers is narrowed down. Involvement of the teachers in making curricula helps her to adopt the syllabus and deliver the goods as a result of expertise garnered through professional activities such as academic studies and research, or through personal linkages with the relevant “industry” in which graduates will be employed (Taylor).

Functions of curriculum

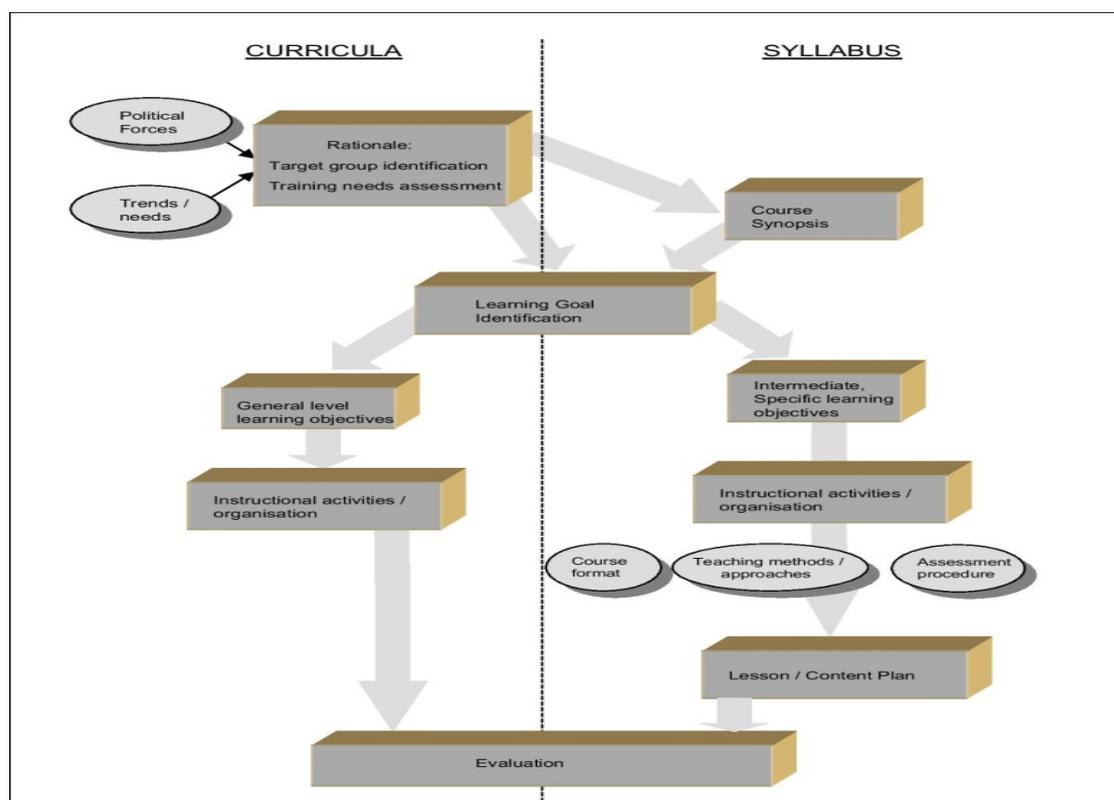
- Assists to define the outcome fulfilling the objective.
- ▶ Integrates discussion across different subjects.
- ▶ Defines the standard to be set for evaluating student / trainee performance.
- ▶ Provides an insight to the outsiders such as government agencies and private sectors what training takes place
- ▶ Leads one to frame syllabus that would integrate the teaching learning process

Syllabus and its purpose

- ▶ An instrument for effective teaching learning process
- ▶ Initiates discussion concerning curriculum integration within and across disciplines
- ▶ Provides an instrument for effective teaching learning strategies that could be additionally supported by practice and further research
- ▶ Provides an insight on the different methodologies to be up-to-date with the current needs

Basic Model

Verdun developed a document to be used by urban adult education centers with 5 elements such as Rationale, outside political forces, goal identification, instructional activities and organization, evaluation. These will have sub elements .He developed it based on the need of the forestry department. A cursory glance will show that this can be adopted to any subject.



This model shows the rationale of having goal aiming at the target group identification. This is followed by specific learning activities to realize the goals identified the goals can be general, immediate and specific and hence the outcome is evaluated.

Spiral curriculum

The basic model helps you to frame the syllabus but it is with series of courses with its own programme and content. It has neglected the overall organization of the content and the construction of the structure. There is a growing tendency to break down the barriers between the departments and aim at overall objectives.

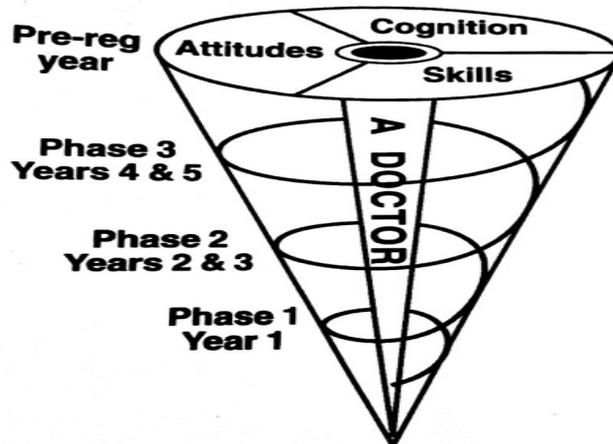
- ▶ In planning a curriculum, besides aims, objectives, and content, educational strategies such as problem based learning, integration and community based learning have to be applied to make the learning successful
- ▶ The curriculum planning in traditional way did not fulfill these wholly.
- ▶ In 1960 Bruner suggested a curriculum would be structured “around the great issues ,principles and values that a society deems worthy of the continual concern of its members “and he coined it as spiral curriculum

Features of the Spiral curriculum

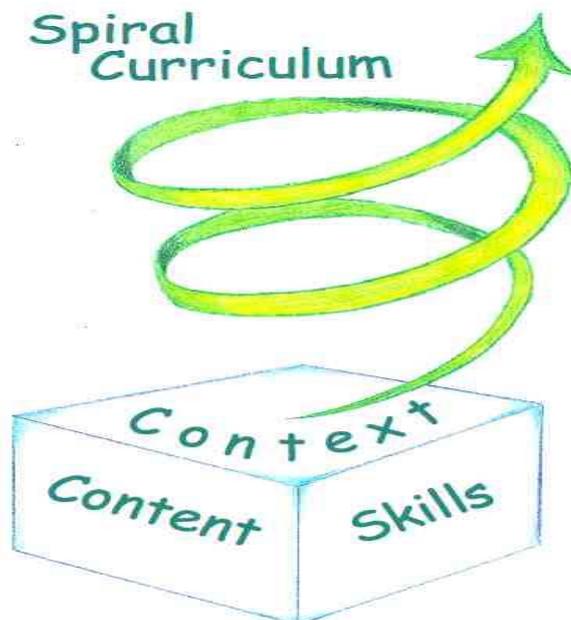
- ▶ Topics are revisited.

- ▶ Increasing level of difficulty
- ▶ Related to previous learning
- ▶ Increase of the competence of the students by strengthening it

The following diagram shows the value of this curriculum:



In phase 1, the students undergo the syllabus in the normal method but in the second level as in the figure, they revisit the same structure and in the second and third phase they revisit the system with more depth and in the final stage they exercise into practical situation



The above diagram shows how the learning takes place in the context understanding not only the content but also absorbing skills.

It aims to fulfill the following six factors

1. Reinforcement
2. A move from simple to complex
3. Integration

4. Logical sequence
5. Higher level objectives
6. Flexibility

Technical Reading

This method was adopted when we have to teach a set of 60 IT students on Technical Reading. This is one of the important skills needed for academic purpose. Quick, efficient and imaginative techniques are needed to recognize what is written and comprehend the matter with the links between the different materials. While interpreting the written word, the reader is concerned with four factors such as decoding, comprehending, text analysis and response (Ashraf Rizvi)

The technical students are expected to have excellent reading skills which include scientific texts, instruction manuals and technical material in different forms. It is a complex process of obtaining discipline- specific information and retaining it for future reference, says Ashraf Rizvi

.He undergoes four processes-browse where he is able to predict the subject that he is going to read and relate it with overall content..Then he begins to skim the text before detailed reading. The reader should discover the purpose and organization of the subject. He revisits the same text to discover more graphic information and look for any notes and remarks at the end of the text .Note making makes it complete

Methodology

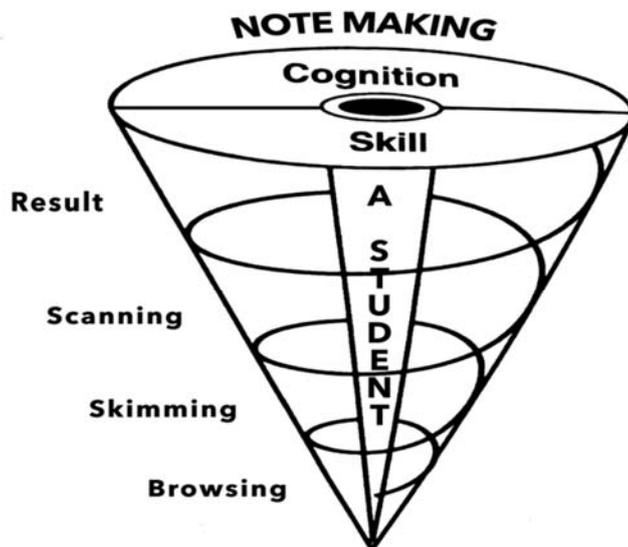
To have a pilot study on the impact of spiral curriculum a passage on “Building Internet Culture” from English for Engineers And Technologists published by Orient Longman was chosen to teach Note-Making to a group of Engineering students .The student were divided into two groups: controlled group and uncontrolled. While uncontrolled group followed the traditional reading method, the controlled group followed the spiral curriculum method.

- ▶ Spiral curriculum Methodology was adopted to teach the basic facts of the spread of Internet culture through note making in the class.
- ▶ At first browsing the topic, general ideas were learnt without worrying about the details.
- ▶ During the next step of reading, skimming was used to re-emphasize the points that were read in the passage given. This helps the students enter into long term memory.
- ▶ Finally through scanning the passage, the students were left with a wide variety of concepts of the passage, through which the learners were thrown open to the new skills of picking up an exact idea.
- ▶ At the end it becomes “continual concern of everyone” until they are mastered

Findings

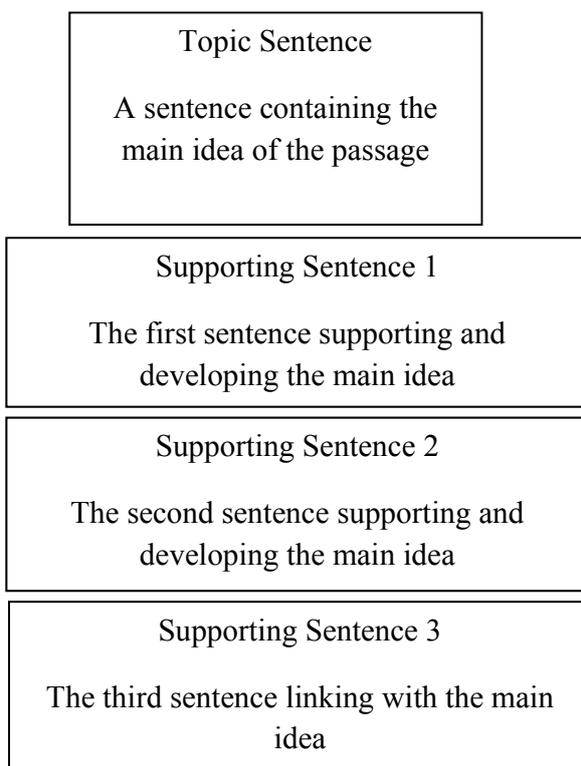
- ▶ Two sets of groups were chosen from a class of 60 members in which one was in controlled group while the others were in uncontrolled group.
- ▶ The passage was given to both the groups and they were asked to draft note making.

- ▶ The controlled group revealed the following features :
- ▶ The controlled group revised the passage using all the three methods and resulted in sharing each activity repeatedly.
- ▶ The students understood that a continuous interaction with each other in the evening on their “war stories” that not only improved their drafting skill but also initiated the management to give radio equipment to them.
- ▶ This group understood how they think together in their own ways when they have something important in common
- ▶ This group also understood how a few did not use the media and continued to interact in the platform and coffee shop
- ▶ The discussion groups which shared their “war stories” in the evening began to think together through internet using any media available to them .this has proved the influence of social network.
- ▶ However one group from Sarajevo did not use this internet as the people there could entertain themselves walking on a pedestrian mall about two km long.
- ▶ By scanning, students found out the strong connection between the third and the first paragraph and note making was done linking both.
- ▶ This linkage was missing in the uncontrolled group which followed the traditional method



Analysis and Result

The controlled group could do note making successfully and with speed with a good organization:



Through these, they revisited the passage to have a good comprehension and relate the ideas with the focus on the main idea

| | Controlled Group | Uncontrolled Group |
|-----------------------|------------------|--------------------|
| Topic Sentence | 28 | 23 |
| Supporting Sentence 1 | 28 | 18 |
| Supporting Sentence 2 | 28 | 10 |
| Supporting Sentence 3 | 27 | 0 |

Conclusion

- ▶ The pilot study reveals the impact of spiral curriculum is more effective in learning the vocabulary and also in bringing the linkage between the topics
- ▶ The repeated visits affirm their understanding and presentation of the ideas in a better way.
- ▶ This method will become more successful and more explicit when the teachers try to teach different nuances of grammar and structure.

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