SUBJECT CENTRED CURRICULUM DESIGN

In 1949, Ralph Tyler lay out the subject-centred designs in his book Basic Principles of Curriculum and Instruction. His book becomes the foundation for the subject-centred on learning and still using in many countries. Subject-centred designs focus on one subject a time, helping learners building on the knowledge gained. In the subject-centred curriculum, the subjects knowledge occupies the central position. The purpose of subject-centred curriculum is to transmit to the younger generation that knowledge which is most 'important' to all humankind. The advocates of subject-centred curriculum believe that the needs of individual an society are best served if the curriculum is based on knowledge that is generalizable to groups or classes of situations. The subject-centered curriculum, thus, consists of an array of knowledge structures from different disciplines such as science, arts and mathematics. These subjects are treated as distinct entities, each requiring almost equal time for classroom instruction. Knowledge is communicated to students mainly through classroom instruction. It has been pointed out by many educationists that knowledge has grown exponentially during the past fifty years and the number of subjects has also increased. But our school curricula have been static and same subjects are offered in school year without any substantial change. School curriculum have not kept pace with the growth of knowledge. The debtate still continues as to which knowledge is most important or worth teaching in schools. The restructuring and multiplication of knowledge poses significant change for the curriculum designers. The essential question for curriculum designers is that how many disciplines can be reasonably added to the existing school curriculum? Another question posed by educationsts about subject-centred curriculum is that if knowledge is changing rapidly, then why students should be made to memorise content that is likely to change significantly by the time they reach their adult years. To answers to the first question i.e. How many more subject can be added to existing school curriculum? The curriculum designers have suggested an integrated knowledge perspective and to answer the second question, the process was suggested as content perspective.

Type of Subject-centred Designs

Five different approaches have been proposed in the subject-centred designs; they are academic subjects design, discipline based design, broad fields design, correlation design and process design (Phillips, 2007).

- **Academic subjects design**

This is the oldest and best known design. Students have no right to choose what is meaningful for them to study. There are a variety of books and sources to support this design. Teachers find it easier to transmit ideas and knowledge thru textbooks.

- **Discipline based design**

In discipline design, the teaching of the disciplines in its pure form is emphasized. That is, a student who studies physics would approach the subject as a physicist while those who study music will study it as musicians. This approach will narrow the view and knowledge of students.

- **Broad fields design**

This design is also known as the interdisciplinary design. The design combines two or more related subjects into a one logical subject. For example, Biology, Astronomy, Chemistry, Geology and Physics were composed to form General Science. Students may achieve a greater integration of learning experiences but the knowledge will be superficial.

- **Correlation design**

This design model lies between the academic design model and the broad field design. This design attempts to relate a subject to the others while maintaining their identity as subjects. For example, students read a novel that relates to the same time period while studying a period in history.

- **Process design**

Thinking processes such as critical and creative thinking, problem solving are taught under this design mode. The aim of the curriculum is to enhance process skills applicable to all disciplines. Under a major project, i-THINK, the Ministry of Education Malaysia is now developing thinking skills in all Malaysian schools.

The Impact of Subject-centred Designs in Teaching and Learning

In a subject-centred classroom, it is acceptable that the teacher who is an expert in a subject be the person who impacts that knowledge to the students. Teachers are in control of the whole learning process, planned instructional design and teaching techniques. Every instruction is from top-down, wherein knowledge is passed from teachers to students via sharing, leaning contents, transmits values, attitudes and ideas. These make a teacher very professional. Teachers attend a university to receive a degree in their chosen field and then become an expert in that subject in school. In this situation, students will not get wrong information from the teacher.

Subject-centred design lends itself to mass production. This traditional approach has many resources for learners and teachers. Teachers communicate the ideas and knowledge of certain subjects in verbal form in textbooks because it is easy to interpret in textbooks and those textbooks are commercially available support materials. The curriculum reduces the content into small components that are clearly definable and measurable. Students and teachers can find many workbooks that breakdown reading or math into sub skills and processes. This makes pros and cons to both students and teachers. As I mentioned earlier, some of the teachers nowadays are not really expert on what he or she is teaching. This

expertise insufficient may cause students cut classes or even skip school, especially in secondary school because the student can attend tuition class from an expertise teacher rather than a teacher without professional knowledge. Resources or books may also lend to hastily of teachers in teaching. However, the advantage of the mass production is learners and teachers can engage in self study or self improvement.

Subject-centred design is beneficial for dedicated teacher. The teacher will be able to guide the teaching and learning process in the class with a good teaching plan. Teachers will determine all teaching content. On the other side, students can acquire new knowledge adequately during the whole learning process. Teachers can also prepare their own teaching aids according to students' background and thus make the lesson more effectiveness and interesting. For example, a second language teacher plans to teach family members. The teacher can teach students how to address own family members before teaching them how to address relatives. This kind of step-by-step teaching and learning is helpful and not confusing.

However, there also challenges for teachers to teach under correlation design. Teachers must at least know the relationship about the material and content and ways to relate each other while teaching. Teachers involve must find time to plan lesson cooperatively. Most of us were educated under subject centred design. This format of education is more familiar and acceptable compare to other curriculum designs. Teachers will know well at which stage students are in their learning at all times in the end of the course when testing and evaluation of learning were executed. Every course that is taught will have to be evaluated. Standardized, multiple choice, true-false, and comprehension tests are used for evaluation (Ahara, 1995). If the learning is subject-centred design, the rate of learning is apparent, thus testing can be executed at the appropriate time. By using test score, a teacher can easily quantify and justify the students' achievements. Scores are also motivating students to achieve better in the future evaluation. If the scores achieved weren't as good as anticipated, a teacher might do some adjustments and alterations before the final evaluation. The teacher can also provide tutorial classes for those who are weak in the subject. Special guidance might be given for slow learners in order for them to catch up with the others. However, testes in this curriculum design are based solely on regurgitating material. The tests given might not an overall comprehension or understanding of students in the subjects. Students can simply memorize what they need to know in order to pass the test. At last, they might learn or remember nothing after the test. Therefore, it is difficult to test the knowledge in practical use of the materials in everyday life to solve problems. Hence, teachers should test students over comprehension but not memorize skills.

Even there are some arguments about the ways of teachers tested students in this curriculum design; we can't admit that subject-centred design is easier for students to remember information for future use. Students can easily realize the important knowledge that they have to learn during the lesson. Results have shown that many successful students have come from this design through the years (Silvestri, 1997).

Just because the subject-centred designs corresponds mostly to the textbooks written for specific subjects and the commercial production of books and sources, tutors without much training can easily teach from an existing curriculum. This circumstance is well known as tuition classes in our country. The ramp of tuition classes in our country has gone beyond control. Parents who expect high scores will send their children to several tuition classes. Initially, tuition classes exist to help students which need more help than others, but nowadays, even smart students are attending tuition classes. Parents today are mostly working; they treat tuition classes as day care center to take care of their children while learning. This kind of action seems killing two birds with one stone but it indirectly obliterate children's childhood with studying. As a result, students do not like to study and learn new things.

By using the subject-centred design, teachers will have better control in class where students will not have a chance to disrupt a classroom. According to Karen Silvestri (1997), a disciplined classroom imparts a sense of self-discipline. Experience has shown in the last generation that children who are raised in a disciplined framework in school do indeed learn better throughout their school life as well as having a balanced approach to life in general.

However, this sense of self-discipline and subject-centred design might omit the importance of learner experiences (Scheidies, 1994). Subject-centred design requires a learner to accept the information being transmitted rather than challenge. Students are passive in a subject-centred design classroom, there are seldom learning noise. Students will only believe in books and afraid to ask questions beyond the frame. This subject-centred curriculum will only foster passivity about learning and knowledge. Finally, students with lack critical and creative thinking skills are well produced. Sadly, the workplace nowadays does not require individuals who are "walking encyclopedias". Employees are complaining about our graduates, particularly lack of analytical skill, life management skills, cooperation skills, interpersonal skills and so forth.

Furthers, the subject-centred designs depends upon a system of authority (Scheidies, 1994). Students' needs are considered only in conjunction with type and difficulty level of the material (Scheidies, 1994). Subject-centred learning does not take family situation, ethnic background or other wide range of options into account that will impact learning. Students have no right to choose the content they are most meaningful for them. They are expected to absorb whatever material taught in the time allotted. Learning material will not change regardless of students' needs and must be covered on time. The pro is, students can learn the knowledge in adequate time but the con is slow learners might have no choice but follow accordingly.

On the other hands, subject-centred curriculum prevents students from understanding the wider context of what they are learning. Separate lesson on languages, mathematics, sciences, history, arts and music is taught without regard how one subject impacts another subject. Students may learn about history but they do not know how history is influencing our country and culture. That is why we can often hear the question "Why are we studying history?" This

kind of separation of subject-centred curriculum make students feel bored and difficult to understand when studying.

Differ with academic subject design, broad fields design provide interdisciplinary or cross-disciplinary studies. Students study a subject combined from different subjects which have linkages between each others. Even the syllabus might not as depth as a pure subject, this will indirectly help students to determine their own interest. For instance, a student study General Science which was composed from Biology, Astronomy, Chemistry, Geology and Physics find his interest in Biology and thus further his study in that field as his expert. Furthermore, breadth views about different subjects will at least wider a student's visual field.

As a conclusion, subject-centred curriculum designs had created many pros and cons to learners. There are still many countries using this curriculum design, this department in charge should monitor the progress of the curriculum from time to time and make advisably modify to keep pace with the society needs.