TEACHİNG - LEARNİNG STİMULATORS

M. L. Sudarshana

The Open University of Sri Lanka, Sri Lanka

Abstract:

This article is devoted to explain a novel concept "Teaching-Learning Stimulators" (TLs). This concept is somewhat similar to the concept Teaching-Learning Aids. In addition, the TLSs compare and contrast with the teaching-learning aids, resources & materials. Also, a classification has been developed for TLSs. According to this classification, TLSs had been divided into two major parts namely "single senses stimulators" and "multi senses stimulators". Furthermore, the planning, preparation and usage of TLSs for classroom teaching-learning process is explained.

Keywords: teaching-learning, stimulators, instructional design

1. Instruction

The main objective of this article is to introduce a novel concept "Teaching-Learning Stimulators". It is somewhat similar to the term "Teaching-Learning Aids". It is important to discuss in contrast with the terms; teaching-learning aids (TLAs), teaching-learning material and teaching-learning resources in order to clearly understand the concept and the necessity of Teaching-Learning Stimulators (TLSs). The above terms are very popular in the field of education as they are essential components in the teaching-learning process. Being a good teacher, he/she needs to have a thorough understanding about those components. Therefore, this article is devoted to a deep discussion on the novel concept TLSs while critically discussing other components as well.

2. Teaching-learning aids, materials and resources

This section briefly explains the above terms, their similarities and differences. Have you ever raised these questions; what are teaching aids, what are learning aids and are they similar or different? There could be many different answers to these questions, but simply I would say teaching aids are something (physical) that teacher/s use/s to teach

students more easily (teacher's side). On the other hand, learning aids are something (physical) that student/s use/s to learn more easily (student's side). Then what could be the answer for the third question, if the teacher uses something (living or non-living) to teach as an aid and at the same time students use the same aid to learn the teaching-learning process happens simultaneously. Therefore, the most suitable word for aids in the field of education is "Teaching-Learning Aids". According to the dictionary.com, (online dictionary) teaching aids had been defined as "*any device, object, or machine used by a teacher to clarify or enliven a subject*". Basically teaching-learning aids are classified into three categories as audio aids, video aids and audio-visual aids. Sometimes they are divided into four according to Prakash (2011) 1 Auditory Aids (produce sounds and act through the ear-Radio), 2 Visual Aids (Presents pictures and matters and act through the eyes- pictures), 3 Audio-Visual aids (produce both pictorials and sounds, influence to the mind both through the eye and ears- television) and 4 Activity Aids (induce direct participation of students and teachers to get first-hand knowledge- field trips).

The term teaching-learning materials are also used in many instances. According to the University College Cork, Ireland website, teaching materials are "*the resources a teacher uses to deliver instructions*". So, teaching-learning materials are similar to teaching-learning resources. It is important find out the meaning of the term resources before we focus our attention on teaching-learning resources. Resources have been defined in many different ways. According to the www.dictionary.com a resource means a source of supply, support, or aid, especially one that can be readily drawn upon when needed. According to the Merriam-Webster online dictionary, resource means "*a place or thing that provides something useful*". So that resources can be considered as something useful and readily available when needed.

The Ministry of education in British Columbia has explained learning resources in its website as "texts, videos, software, and other materials that a teacher uses to assist students to meet the expectations for learning defined by provincial or local curricula". According to this explanation learning resources are limited to materials and software even though at learning resources website they have given variance types of teaching resources for instances; classroom decorations, classroom kids, classroom (CR) management, CR organization, CR technology, demonstration material, instruction and activity books, pocket charts, and student response.

According to the above information, in general anyone can say teaching-learning aids, materials, or resources have played a similar role in the teaching-learning process as they facilitate the teaching learning process. But if somebody looks at them very carefully teaching learning resource or teaching learning material is a broad concept than the teaching learning aids. Materials and resources could be anything which is readily available in the classroom for instances; chalks, dusters, black/white board, desk, chairs, papers, color pencils etc. Even though we use desks and tables as resources

at the classroom they are cannot be considered as teaching-learning aids. Of course black or white board is clearly a teaching-learning aid according to the situation but material such as chalk or duster cannot be consider as teaching-learning aids which are used with black or white boards because, chalk and dusters are parts of black or white board. All resources which are readily available cannot be considered as TLAs. If we consider something as a TLA it should be used purposely to achieve lesson objectives more easily or make students understand subject matters more easily. Most probably, TLAs are clearly mentioned in the lesson plan. Pre planning or preparation is a very important part of the TLAs and TLSs should be used in the exact place in the lesson as pre planned.

Now it is important look at the problems of TLAs separately. As was mentioned above under the activity aids "field trip" was mentioned as a TLA. It is important to rethink this matter because a field trip can be considered as a teaching strategy rather than TLA. According to TLAs classification it focuses only on visual (eye) or/ and audio (ear) and combination of visual and audio called audio-visual in addition to this activity type. If some aids focus on taste, (tongue) there is no place to incorporate them within the existing classification. It is very clear that; TLAs are different from the teaching-learning materials or resources.

3. Teaching-Learning Stimulators (TLSs)

The term teaching-learning stimulators are something similar to TLAs. Then what are teaching-learning stimulators. Let's take an example; a radio is an audio type TLA. It is directly related with the ear. Then what really aided the student to learn. The student was aided by the sound stimulating the student's ears therefore sound is the learning and aid not the radio. Then what is the role of the radio. It produces sound (real aid) which then stimulates the student's ears. So radio is the stimulating agent. Radio is not a teaching- learning aid. It is **teaching-learning stimulator**. Graphics, pictures, motion pictures can stimulate eyes. Television (Audio and video) can stimulate ears and eyes at once so that all of them can be recognized as teaching- learning stimulators as all of them stimulate one or more senses of the students with regard to the facilitating of the teaching-learning process/purpose. TLSs could be anything according to the situation. Even though we use a chair to sit in the classroom, it cannot be considered as a TLS because sitting on a chair in a classroom does not stimulate any sense/s purposely to achieve any objective of the lesson. But, if a teacher uses chair/s purposely to teach shapes, materials, correct position of seating in a chair etc. something related to the lesson then the chair will be a TLS. So TLSs could be anything plants, animal, material, instrument, person/s, objects if it can stimulate the students' sense/s purposely with regard to the lesson objective/s. Another important thing is that substitutes of a TLSs cannot be considered as TLAs. For instance, black/white board can be used as TLS but

chalk/marker pens or duster cannot be considered as TLSs. Another example is the radio needs power. So we have to use batteries for that but batteries cannot be considered as TLSs. But if the teacher uses a piece of chalk purposely to teach about the production of lime then it can be considered as a TLS. In that case, software also cannot be considered as TLSs though they are very important for the teaching-learning process as software cannot work along without the computer and multi-media projector etc. such as cassette recorder. On the other hand, the computer also cannot work without software. So that we can mention these TLSs with the form of software (which are purposely produced for the lesson/s) within-brackets (where necessary). For instance computer (PPT/Power point presentation). Therefore, it is important to look at the situation and purpose/s when using something for the teaching-learning process to decide whether it is TLS or not.

Considering all the above factors, we can define Teaching-Learning Stimulators as follows

*"All living and non-living things which are **purposely used** for the teaching-learning process to facilitate learners to achieve learning objectives more easily by providing appropriate stimulation/s for the learner's sense/s."*

According to the above definition, we cannot limit TLSs into one frame, it can be anything. But it should be **used purposely**. Pre planning is very important and it should facilitate students to gain learning experiences more easily and to achieve learning objectives. On the other hand, teacher should be able to teach more easily with the TLSs

Figure 1: Interaction between student and Teaching-Learning Stimulators
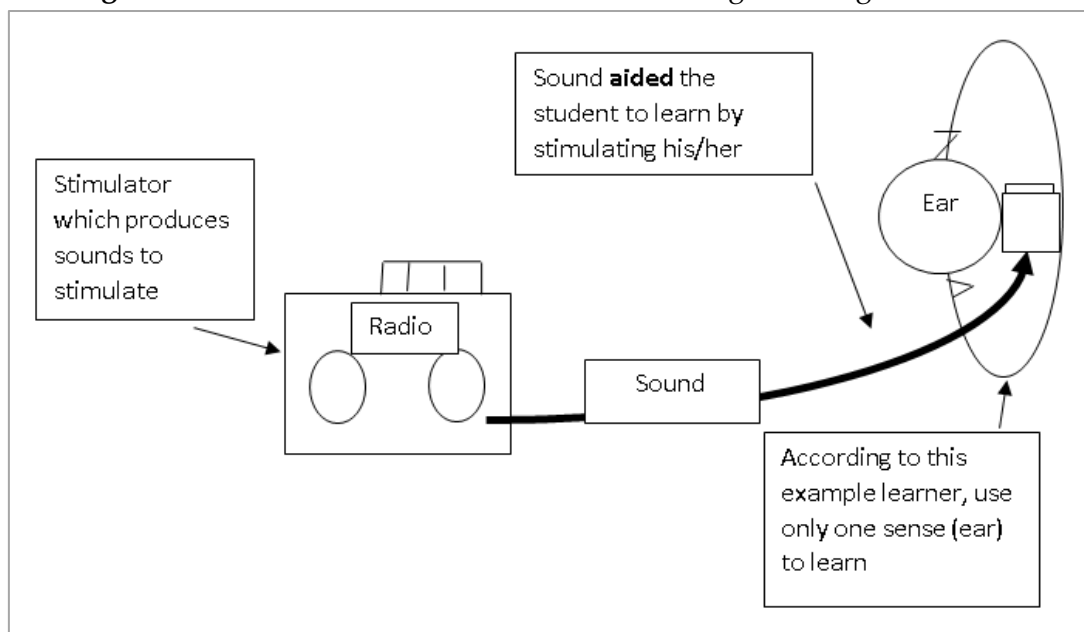
4. Classification of Teaching-Learning Stimulators

As was mentioned above teaching-learning stimulators stimulate the student's sense/s. This classification had developed based on that sensory stimulation. Some stimulators are supposed to stimulate only one sense and some stimulators are supposed to stimulate more than one sense to achieve the expected objective/s.

Figure 2: Classification of Teaching-Learning Stimulators
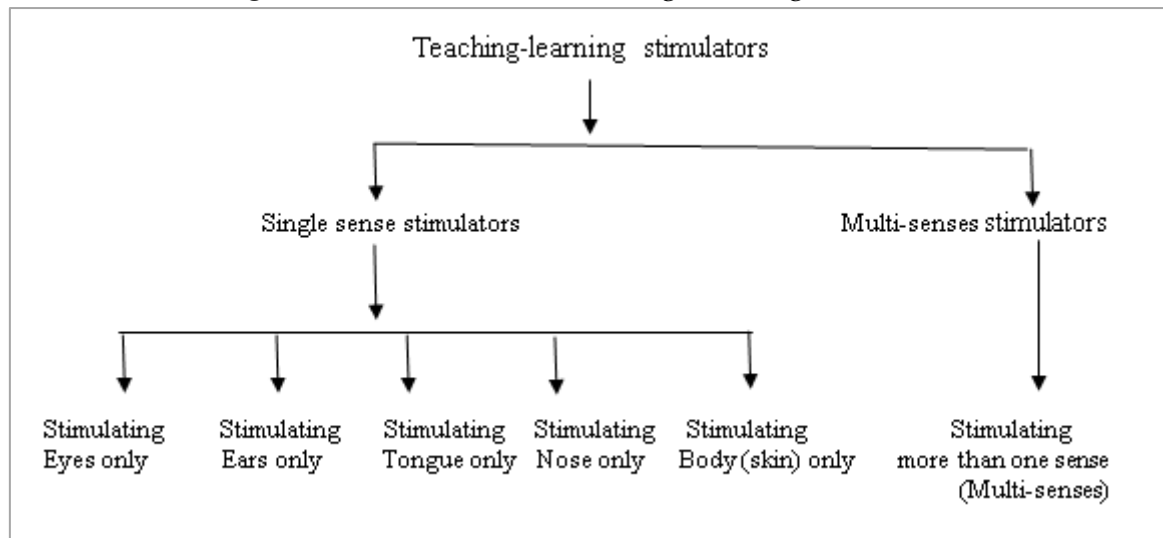
The above classification is clearly based on the sense/s of students. It is important, to look at each and every aspect separately. First let's look at the stimulating eyes only TLSs. The entirety of still pictures, motion pictures, graphics, Photos etc. could be included into the Eyes only category. Secondly, let's look at the stimulating ears only TLSs. Radios, cassette recorders, microphone and speakers can be included in this category. Thirdly, stimulating tongue only TLSS. If teacher is going to teach about different tastes he/she has to use something which stimulates the tongue for instance lime for the taste of acid or sour sweet. Fourthly, the teacher may teach students to recognize some chemicals or chemical reactions by its smell. Fifthly stimulating body only TLSs. Body or skin is our largest sense if we learn something by touching those things can be included into this category. If teacher use something to teach roughness or softness students have to learn by touching. Finally, stimulating more than one sense TLSs. Most of the TLSs belong to this category the television; videos can be included into that category. Considering the above characteristics in the first five categories can be commonly named as Single Sense Stimulators and the last category can be named as Multi-Sense Stimulators.

Any TLS can be included into this category. But one TLS could be included into any category. Let's look at an example. The radio very clearly can be included into the "stimulating ears only" category. If teacher use the radio to teach about electronic devise, to show its features without producing any sound it can be included in

stimulating Eyes only category. According to this classification, the most important thing is the purpose of the use. As was mentioned above, if the teacher uses radio to stimulate ears of the students with regard to the lesson objective/s it can be included in the second category. But anybody can argue that the student can see the radio (color/size etc.) and also it can be touched and therefore it can be included in the first or fifth or last category. In this situation, we cannot include radio in other categories other than the second category because the teacher's planned purpose was to teach students by stimulating the ears to achieve lesson objectives more easily. The teacher did not plan to teach about the size or the colour of the radio. If we are going to categorize TLSs we need to look at the Purpose/situation where the TLS is used and then only we can divide them into the above categories.

5. Planning of Teaching-Learning Stimulators

Selection of the most appropriate TLSs for a lesson is the most important step to be taken for them to be used effectively and efficiently. This selection must be done at the planning stage of a lesson. After establishing objectives to be achieved objectives of the lesson, TLSs should be selected carefully to facilitate learning. Selection means the teacher has to decide exactly which TLSs, when and where to use in the lesson. This is not an easy task because the teacher has to consider many factors such as time, how to create/find (only by the teacher, with the support of students, students only, something ready-made and available at school or bought etc.), how to present (whole class/individuals, software/hardware etc.) students' intelligent level and knowledge, available resources (electricity/multi-media, labs etc.), obstacles (noisy environment, lack of space, poor readiness of students), alternative strategies (in case of power failure teacher can use a battery as an energy source), ethical or cultural factors, whether TLSs are harmful to the students (chemicals, sharp or spiky parts).

If the teacher could plan TLSs properly teaching-learning process would be an interesting and objectives oriented one. So that, teacher can teach easily and the student can acquire the necessary learning experiences without any difficulty.

6. Preparation of Teaching-Learning Stimulators

Preparation stage is not that much difficult if the teacher had done the planning properly. The teacher needs to think about the durability of the TLSs because if it is durable the teacher can use it again and again for his/her teaching as it is or with slight changes. If the teacher has created a software type TLS it can be change more easily and used for a long time. Student participation for the preparation of TLSs is also very important. Therefore, it is important to get students to participate in the preparation of TLSs. In addition to this, the teacher should think about which sense/s should be

stimulated with regard to the particular TLS. For instance, the teacher can create a poster for the whole class to stimulate students' eyes. Colour combination, size of the letters or picture (students seated at the back could be able to read/see clearly) how to hang it (with gum-tape/wire/separate stand) and where is going to hang it (All students should be able to see that easily) must be considered. The TLS should be prepared considering all the above factors. Finally, it is better to re-check whether it is completed as planned. If it is a functioning TLS make sure that it functions properly.

7. Usage of Teaching-Learning Stimulators

If the teacher could select and prepare TLSs appropriately to the lesson, they should be used in a proper manner. Firstly, the teacher has to think where he/she should keep all the TLSs before the start the lesson because if the teacher keeps all these things on the teacher's table it may distract the students. Secondly, the teacher should present each and every TLS exactly as planned at the planning stage/lesson plan. Otherwise it is useless using TLSs in a wrong place in the lesson. Finally, the teacher should keep all these TLSs away from students' attention after using them. If not students may pay their attention on used TLSs rather than paying their attention to the lesson.

Finally, I would say that many teachers think that we should use something as TLSs, so that they could prepare something and present at the lesson. If it is unnecessarily complicating the teaching-learning process as well as wasting students' and teachers' time, at the planning stage the teacher should carefully think how far the TLS is useful to him/her to teach the relevant subject content easily and efficiently and if not whether he/she can continue the lesson productively even without the TLS or is there any other TLS to teach this subject matter more efficiently and effectively. Then only the teacher should select a TLS for an exact place in the lesson plan.

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