

A Dynamic Re-conception of an Integrative Teaching-Learning Process

by Renato Dela Peña

*In this paper, I am going to present a re-conception, or in a far simpler manner, a re-framing of concepts concerning the two big ideas in science education, or of any education for that matter, namely **teaching** and **learning**. I will, however, start with learning and then continue with teaching, in reverse order, because the re-conceptualization of learning is determinative upon that of teaching, and not the other way around.*

Learning is the center of the educative process, with the other elements ideally complementing one another in order to achieve the ends of education. “The center of any educative process in a school is the learner. Without the learner, there would be no need for teaching” (Bustos & Espiritu, 1996, p. 1). Consequently, in this humanistic conception of education, the learners occupy the highest consideration in the whole educational enterprise.

Consistent with this view, learning is, psychologically, defined as “a relatively permanent change in the behavior potentiality that occurs due to experience and reinforced practice” (Bustos & Espiritu, 2004, p. 28). Learning here is gauged in terms of the behavioural change exhibited by the learner. Furthermore, such change must be more or less permanent to be considered “learning”, which means that the modification in behaviour has to be more or less of a lasting effect or impact. There are other definitions of learning but this one is classic.

On closer look, this definition of learning lacks “inner dynamism”; it is conceptually limited because its focus is behavioural modification to effect learning. Since this definition addresses the external aspect of learning, it does not really offer much practical guidance to the teachers as they orchestrate all the necessary elements to achieve the goals of education. How would they exactly cause this permanent change of behavior so that

learning would be said to have taken place? It is argued that for a conceptualization of learning to be useful, the same should also be able to direct teaching, that is, how to teach the learners. Hence this proposed dynamic re-conceptualization of learning and teaching.

Learning here is being reconceptualised as composed of three separate states: (1) learning as “nouveau” learning; (2) learning as “relearning”; and (3) learning as “unlearning.” Graphically, this view of learning appears like this:

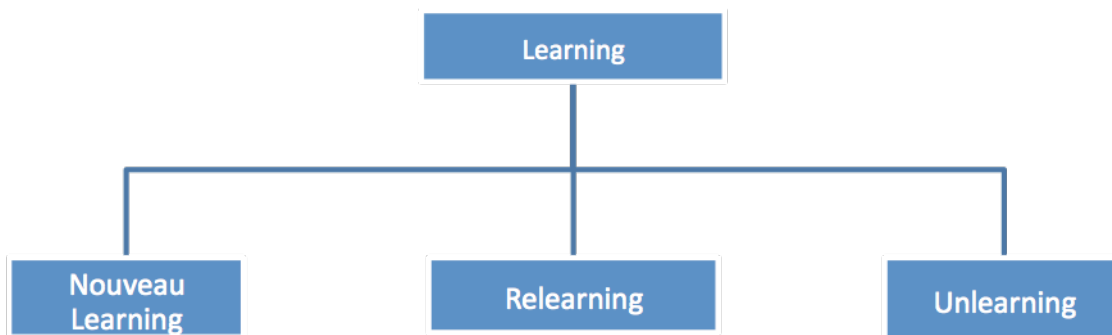


Figure 1.

The Three States of Learning

1. Learning as “Nouveau” Learning

Conceiving learning as “nouveau” learning simply means that the learner is in the state of learning a totally new thing, that is, a new intellectual concept, a new psychomotor skill, or a new value.

The word “nouveau” is used here in the sense of being new, as in “nouveau” rich. Its other conception is “recent” for “having recently appeared or become fashionable.” This second view can also be adapted to a limited extent since a lot of “new things” do become “fashionable” and therefore necessary to be learned.

2. Learning as “Relearning”

Learning as “relearning” simply means that one is learning again something he has learned before but has forgotten almost completely as a result of non-use and the passage of time. The laws of forgetting operate here.

3. Learning as “Unlearning”

Learning as “unlearning” means that one is engaged in the process of “abandoning” something already learned because it is an error, a misconception, obsolete or no longer relevant. Hypothetically, this is a difficult experience because the learner must make a decision to abandon long held beliefs or views in favour of a new one. It is also challenging since some errors have already fossilized.

The above reframing of the concept of learning must be met by an equal reframing of the concept of teaching. Teaching thus maybe conceived as (1) “nouveau” teaching, (2) re-teaching, and (3) “unteaching.” In graphic form, this reframed concept of teaching looks similar to the one on learning above:

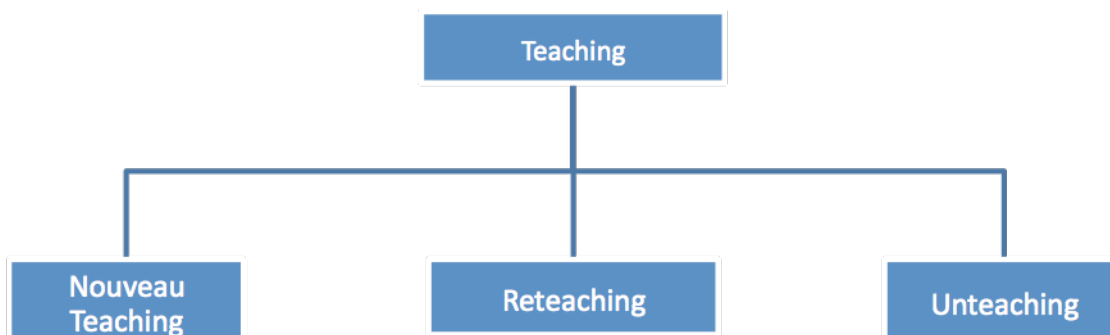


Figure 2

The Three States of Teaching

A re-conception of learning would not be useful without a correlative re-conception of teaching.

(1) Teaching as “Nouveau” Teaching

When we are engaged in teaching something new, this is “nouveau” teaching. But this is largely our personal view. In reality, however, if what we are teaching is something that the learner already knows or has already learned previously, then, we are not in, or should not be, nouveau teaching.

(2) Teaching as “Reteaching”

In reteaching, we are teaching something that the learners are supposed to have learned already from previous year level or grade. When we reteach, we have consciously planned for a reteaching lesson. However, if for the students, it is something completely new, then, in reality we are not reteaching but engaged in nouveau teaching. But reteaching here is not simply similar to reviewing a lesson or teaching it again. Reteaching is responsive to the law of forgetting.

(3) Teaching as “Unteaching”

As used in this paper, “unteaching” is a term akin to “undelete” in computer technology parlance. It is also used in the same sense that a philosopher uses the term “ungender” as in “ungendering philosophy” (Garcia, 2007). So in unteaching, we are teaching with the conscious objective of undoing students’ learning since it is erroneous, obsolete, or unacceptable. Just like unlearning, this is hypothetically a challenging attempt because the learners have to make a decision to unlearn that which we aim to “unteach” to them.

Now since teaching and learning are the twin processes of education, then these re-conceptions would be incomplete without presenting their interface. As implied above, nouveau learning should be met by nouveau teaching, relearning by reteaching and unlearning by unteaching. This interface is graphically shown below:

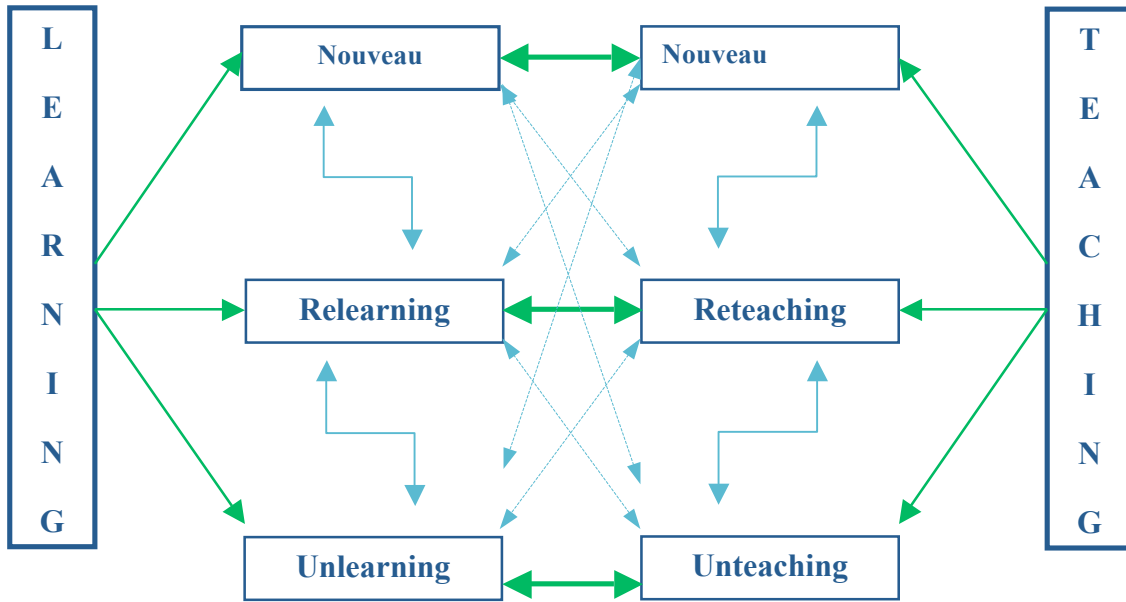


Figure 3

The Interface of the Three States of Learning and Teaching

The desired interface between learning and teaching are in bold green double arrows between “learning” and “teaching”. Nouveau learning should be met by nouveau teaching, relearning by reteaching and unlearning by unteaching.

In these desired interfaces, the learning process is met by the appropriate teaching process in terms of approach, methodology or technique. It is theorized that this learning and teaching fit would result in effective instruction or educational process.

The undesirable interfaces are in light blue double arrows. If nouveau learning is met by reteaching or unteaching, there is a misfit. If relearning is met by nouveau teaching or unteaching, there is also a misfit. And if unlearning is met by nouveau learning or reteaching, there is also a misfit. These misfits results in, or is the cause of, ineffective or inefficient interaction between teaching and learning.

How would this dynamic re-conception of learning and teaching serve as a framework for the many findings about teaching and learning?

When students are in the state of nouveau learning, nouveau teaching would be fit. This involves the teacher's creation of a constructivist learning environment that is rich in terms of varied activities to enable the students to construct their understanding and meanings. The teacher needs to prepare every aspect of his or her teaching so that it would be effective and efficient. Students in this state of learning must be motivated and provided with the appropriate learning scaffold as they are learning something new. Opportunities to practice and exercise the new learning should be provided them by the teacher to ensure the movement of information from the short term memory to the long term memory or to ensure the attainment of automaticity of skill learning.

In the state of relearning, the teacher should conduct reteaching in a manner that would enable the learners to recall, remember or recover what they have forgotten as a consequence of non-use or passage of time. The teacher has to reactivate the learners "remote" prior knowledge and in a sense resurface them for maximum relearning.

In the state of unlearning, the teacher should guide the students to realize that they have held onto a misconception, misunderstanding, partial understanding or a mixture of correct with incorrect notions. Considering that some errors have fossilized in the minds of the students, some creativity on the part of the teacher is called for. Unlearning and the correlative unteaching are challenging processes.

The "misfits" between learning and teaching can be considered as the causes of some of the problems of instruction. For example, if the students are in nouveau learning but the teacher is in reteaching more, students may not be able to understand the lesson since the teacher may be fast in breezing through the lesson and may provide little

opportunities for deepening their learning. A surface approach to learning results in a failure to develop true and meaningful understanding of the lesson.

And as a final example, if with respect to a particular lesson the students need to unlearn their misconceptions, but the teacher is not sensitive to it, then no meaningful correction of student misunderstanding would take place. The new lesson might sink in along with the preconceived wrong notions of the students.

These re-conceptions of the three states of learning and teaching need further thinking and refinement. However, it has been thought of as a humble effort at educational theorizing.

References

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Garcia, L.D. (2007). Ungendering philosophy: Seeking the lost androgyny in philosophy. *IDEYA* 9 (1) Available on-line. www.philjol.info

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