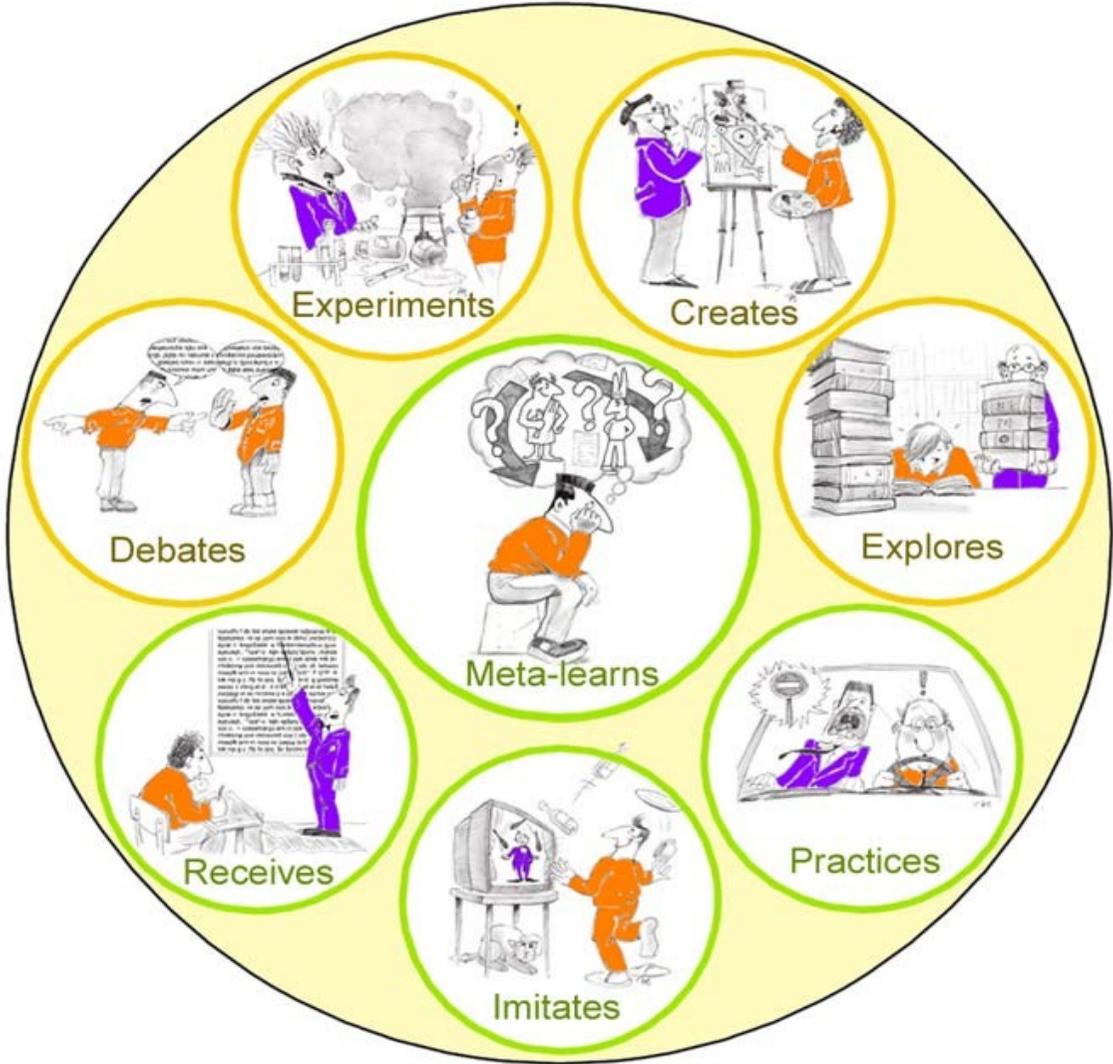


Learning 8 LEM



Main suggestions

Imitate - modeling

“Humans learn a lot from **observation, impregnation (and, afterwards, imitation)**, either voluntarily or without really trying, outside any system of instruction, simply by absorption, as a result of being immersed in the problem, by living in a context, and sometimes without even realising it – making this a form of latent learning. The process of observation can happen without the use of any communication code, so before language.”

1. Looking at the TV an interview of Albert Bandura about the Social Learning Theory
2. Showing a video - a classroom with the practice of a “best” teacher”



Reception - transmission

“Humans learn a lot from **intentional communication**, from the reception of messages (via the press, radio, books, television, lectures, etc.) intended to give us information. This communication is encoded in a language (English, French, etc.) that the recipient must share with the transmitter, contrarily to imitation by observation, where no code is needed.”

1. Reading the paper “The 8 Learning Events Model and its principles”
<http://www.labset.net/media/prod/8LEM.pdf>
2. Listening the same text read
3. Reading a very long and heavy text about 8LEM and stop it after a few minutes



Exercising - guidance

“In fields where it is important to “proceduralise”, to automate, to create routines, humans learn by acting, practicing. Essays and errors are necessary not only to discover the sequences of actions but also to interpret feedback (stimuli) produced by these actions, that help correct it if needed.”

1. Linking some concrete activities and 8LEM
2. Writing an activity for each LEM
3. Filling in the [example-scenario](#) about PBL
4. Playing role with [shells](#) “8LEM”



Exploration - documenting

“in fields where a large degree of freedom of choice is beneficial, humans learn by exploration, i.e. by a personal search among data, either randomly, or to answer their questions. The difference with the imitation or reception or the exercising ways or learning is the personal character of exploration and the pre-existing will or expectation to find something or an answer to a personal query. In a free exploration, a consultation, it is the learner who has the initiative, who asks the questions, but without changing the object of his exploration (without writing in library books, without modifying the content of the videocassette), without creating knowledge which pre-existed its discovery during exploration.”

1. Playing with the “8LEM-game”
2. Asking an expert about the 8LEM
3. Explore different concrete examples
4. [FAQ](#)
5. Extracts from “l'école buissonnière” and identify w LEM take place



Experimentation - reactivity

In some domains, learning is mostly efficient if the learner can manipulate the environment – and, when necessary, can modify it. Experimentation processes mostly by exhausting and combining the possibilities the experimenter regards as meaningful, in order to test a personal hypotheses (otherwise it is simply drill by applying the other's ideas)

1. Trying a sequence of LEM in his/her classroom
2. Classifying series of activities in a own taxonomy of 8 parts, in other words “in 8LEM-own words”



Creation - conformation

“Humans learn by **creating something new** (new to them, not to humanity), by constructing, by changing their environment, by **producing concrete works** (texts, musical compositions, objects, buildings, shows, films, etc.) ...often starting from a personal idea or an individual or collective project. Of course, the creation reincorporates already known elements. Thus, Beethoven whose creativity is beyond dispute, drew inspiration from Haydn.”

1. Create a sequence of activity with 8LEM :
about his/her own practice or about a subject
from us



Self-reflexion – co-reflexion

“Judgements, analysis and regulations operated by a person on his/her own cognitive processes or products in PRE, PER or POST performing situation, the performance being a test or a learning activity.”

1. Categorize own sequence of activities in 8LEM
2. Identify which LEM is the main in his/her practice
3. Answer to a quiz about his/her teaching



Debate – animation

“Learning takes place during social interactions between pairs or between trainees and trainers provided there are conflicts of views (called socio-cognitive conflicts), challenging discussions forcing the opponents to justify their position...or to modify it.”

1. Comparing personal classification (from experimentation)
2. Judging the peers' creation and exchanging about them
3. Debating about why using 8LEM



Mapping LS/LE

Learning Styles (<i>Kolb</i>)	Learning Events (<i>Leclercq</i>)
<p>Accommodating <i>(feeling, doing)</i></p>	 Experiment Create 
<p>Diverging <i>(feeling, watching)</i></p>	 Receive Exploration 
<p>Converging <i>(thinking, doing)</i></p>	 Practice Debate 
<p>Assimilating <i>(thinking, watching)</i></p>	 Imitate Meta-learn 

Suggestion of cycle

1. Receive

2. Meta-learn

3. Practice

4. Create

1. Exploration

2. Imitate

3. Debate

4. Experiment

1. Exploration

2. Imitate

3. Debate

4. Experiment

1. Receive

2. Meta-learn

3. Practice

4. Create

Assessment

- Pepcaa: <http://131.188.192.100/q/open.dll>
- Name : labset
- Password : 12345

Case: "Helen is learning a new software by herself"

Helen is 18 years old. She is already familiar with MSWord software and is now learning PowerPoint (PPT) by herself.

(A) Since she knows the principle of scrolling menus, she opens a series of menus to see what they include.

(B) Since she knows MSWord, she guesses how the PPT software will work and, at first, she makes mistakes. Some of them lead to the loss of previous work.

(C) She reads carefully the error messages displayed by the PPT software.

(D) She makes 2 telephone calls to a friend more competent in the PPT to ask her specific questions.

(E) During the second call, her friend spontaneously gives her additional information (about Power Point) which she had not thought of requesting.

(F) After 3 hours, she has learned a number of functionalities and has produced a simple but original presentation.

(G) Reflecting on how she managed to learn, she realises that her learning was purpose oriented : she was seeking just what she needed to produce: the presentation she wanted.

In order to train your own students in the analysis of learning, you will be required to identify, from this example, which of the 8 learning events (in Leclerq & Poumay's terms) have taken place.

In order to train your own students in the analysis of learning, you will be required to identify, from this example, which of the 8 learning events (in Leclerq & Poumay's terms) have taken place.

A

B

C

D

E

F

G

How confident are you? 0% 20% 40% 60% 80% 100%

Correct answer's:

(A) Since she knows the principle of scrolling menus, she opens a series of menus to see what they include. - Exploration

(B) Since she knows MSWord, she guesses how the PPT software will work and, at first, she makes mistakes. Some of them lead to the loss of previous work. - Experimentation

(C) She reads carefully the error messages displayed by the PPT software. - Reception

(D) She makes 2 telephone calls to a friend more competent in the PPT to ask her specific questions. - Exploration

(E) During the second call, her friend spontaneously gives her additional information (about Power Point) which she had not thought of requesting. - Reception

(F) After 3 hours, she has learned a number of functionalities and has produced a simple but original presentation. - Creation

(G) Reflecting on how she managed to learn, she realises that her learning was purpose oriented : she was seeking just what she needed to produce: the presentation she wanted. – Metacognition

A scenario of "Problem Based Learning" at the faculty of medicine at Maastricht University

Twice a week, tutorial groups of 8 students meet a simulated patient. It is a scenario based on the event "Experimentation". It is completed in 7 steps.

Fill in the blank with the name of the "dominant event" tied to each step.

In a first step, the tutor invites students to conduct individually a reflection on their own mental processes, what we call ".....". The second phase consists in searching for appropriate information in a documentation centre and on the internet. We call that phase ".....". The third phase is the sharing of the information gathered among the members of the group, i.e. "....." and, since they confront their points of view, ".....". In parallel with this sequence, that has given its name to the whole approach, once a week, in Skillslabs, students learn practical skills such as skin examination, injections, chemical analysis, interactions with the patient and his family, etc. The most important activity there is drill and practice, what we call ".....". In addition to that, students spend a half day per week either in a general practitioner's office or in a hospital where the most important event of learning is ".....". In last years, problems encountered are more complex than the medical aspects of the individual's case, since they encompass social, legal, organisation aspects of the medical mission. Often, to elaborate a solution in the problem solving, a large part of "....." is needed.



Shells

Imitates

Student: Show me

Teacher: Look at how I/others do

Imitation (Observation) / Modelling

Related theories: Bandura

© LabSET- ULg

Explores

Student: Let me browse

Teacher: Here are some possible resources

Exploration (searching) / Documentation

Related theories: Norman, Collins, Quilllan, Tulving

© LabSET- ULg

Meta-learns

Student: Help me reflect on my learning-process

Teacher: Here are helps for reflection and my feed-back

Metareflection (Metacognition) / Coreflection

Related theories: Flavel, Brown, Gombert, Leclercq & Poumay

© LabSET- ULg

Receives

Student: Tell me

Teacher: You must know that

Reception/Transmission

Related theories: Ausubel

© LabSET- ULg

Experiments

Student: Let me check my hypothesis

Teacher: Here is a micro-world you can manipulate

Experimentation (Simulation, Testing, Transformation) / Reactivity

Related theories: Bernard, Polya, De Bono

© LabSET- ULg

Debates

Student: Hey, you all! Listen to my opinion

Teacher: Let's discuss

Debate (discussion, dialogue...) / Moderation (animation)

Related theories: Piaget, Perret-Clermont, Mugny & Doise

© LabSET- ULg

Practices

Student: Correct me

Teacher: Here is your mistake

Drilling (exercising) / Guidance (coaching)

Related theories: Skinner, Anderson, Fitts

© LabSET- ULg

Creates

Student: Let me construct, produce, invent, create

Teacher: I am at your disposal

Creation / Support (Encourage)

Related theories: Guilford, Torrance

© LabSET- ULg



Points to clarify about the LEM and training strategies

Point 1 - No ranking

It is not possible to say in the abstract that one event is "better" than another. This kind of assessment may, however, be made in a specific set of circumstances, with respect to an objective, a target public, a field, a tool, a schedule, a particular skill in the instructor or the learner, etc.

Point 2 - no predetermined order, no a priori sequence

There is no predetermined order, no a priori sequence of events. Any event may be combined with any other in various orders. Again, depending on the circumstances, one may judge that a particular combination or sequence is more favourable for achieving a given objective. In a sample of learning sequences, it may also be the case that certain combinations are more frequent than others, because they respond better to certain characteristics of situations, or because they are easier to implement, or because they are less innovative, for instance.

Principle 3 - No mutual exclusion

In principle, one event never excludes another. This is why, when one characterises an activity as a learning event, one talks in terms of a "dominant" event rather than a sole event. Of course, once a law (e.g. a law of physics) has been transmitted, it becomes impossible to have students (re)discover it through experimentation - problem-solving. However, the latter event may relate to some aspect other than the law itself, such as the conditions under which it is applied.

Principle 4 - No obligation

There is no obligation to use all the events when putting together a training strategy. Bringing together the conditions for the occurrence of a single learning event may prove more pedagogically effective than multiplying events. Again, the context matters. However, the model does suggest a sort of "invitation" or recommendation to create a sufficient diversity of learning experience for learners (see the next point), which probably makes it advisable to ensure that the event which "dominates" the various activities on offer varies.

Principle 5 - Alone or in a group

The model is not predisposed in favour of either individual or group activities (by contrast, it has a very clear position on the degree of autonomy to be left to learners). Every event can be treated, in the concrete activity, either individually or in a group. However, there are two exceptions: the "debate" event seems to demand a certain minimum number of participants, while the "metacognition" event, as traditionally understood, is definitely oriented towards the individual, but its practice can be envisaged in (small?) groups.

