How to facilitate and support learning that leads to joy & to impact that lasts?

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Fast changing world
Lavocatisaurus agrioensis: new dino discovered in Argentina
New Supercomputer with 1 Million Processors Is World's Fastest Brain-Mimicking Machine

November 5, 2018 07:07am ET
If you're already feeling stressed out, sorry, but there's one more thing you might need to worry about: A new study finds that stress may impair your memory now and quicken cognitive decline later in life.

October 24, 2018
10 hot job titles that barely existed 5 years ago

We examined over 259,000,000 LinkedIn members’ profiles to determine the 10 most popular job titles that were barely on the map in 2008. Technology and fitness are the biggest drivers for these fascinating changes.

**1. THE IOS DEVELOPER**

Apple announced the iPhone in 2007, and 3rd party development for iOS took off in 2008 with the release of iOS 2 and the App Store.

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<thead>
<tr>
<th>Year</th>
<th>Number</th>
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<tbody>
<tr>
<td>2008</td>
<td>89</td>
</tr>
<tr>
<td>2013</td>
<td>12,634</td>
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142x growth in 5 years

**2. THE ANDROID DEVELOPER**

Google’s Android platform was also announced in 2007, with the release of the first Android-powered handset in 2008.

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<th>Year</th>
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<tr>
<td>2008</td>
<td>53</td>
</tr>
<tr>
<td>2013</td>
<td>10,554</td>
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199x growth in 5 years

**3. THE ZUMBA INSTRUCTOR**

Zumba started in the early 2000’s and quickly gained traction in 2007 as fitness centers started popping up all over the US.

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<th>Year</th>
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<tr>
<td>2008</td>
<td>16</td>
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THE SOCIAL MEDIA INTERN
LinkedIn, Facebook, YouTube and Twitter were all founded between 2003 and 2006. These networks really started hitting their stride after 2008 and are currently at peak popularity. Not a shocker that this is a surging profession.

2008 | 25
2013 | 4,350
174x growth in 5 years

THE DATA SCIENTIST
Our digital lives have created an overwhelming flood of information. In the last 5 years, data scientists have come to the rescue by trying to make sense of it all.

2008 | 142
2013 | 4,326
30x growth in 5 years

THE UI/UX DESIGNER
User interface and user experience designers focus on making our technology pleasant and intuitive to use. Seeing as our lives depend on interacting with technology, it's no small wonder UI/UX designers are in hot demand.

2008 | 159
2013 | 3,509
22x growth in 5 years

THE BIG DATA ARCHITECT
Although it's been around for at least 2 decades, the concept of big data took off around 2008. That year, the Computing Community Consortium published a white paper which propelled the term into the limelight.
Which profile is needed to deal with the unknown future?

1. Investors in continuously learning and developing
2. Critical thinkers
3. Entrepreneurial
4. Competent in knowledge creation – problem solving
5. Effective in updating: searching information fast, accurate and being able to turn info into knowledge
6. Competent in working in teams
Research evidence

Classrooms

IMPACTFUL LEARNING

Learning Sciences

Cognitive psychology
What is your most memorable learning experience (in or out school context)?

What did make it so memorable?
High Impact Learning that Lasts (Dochy et al., 2015)
Building block 1
sense of urgency
A need or a drive to learn
Triggers that act as motivators to learn?

Situational interest, e.g. a problem that needs to be solved, a request that needs urgent action; individual interest: strong personal interest in a phenomenon

Although interest can been triggered by external factors, it leads to continued and persistent activity that becomes self-initiated.

Using rewards as triggers to learn?

Rewards significantly undermine intrinsic motivation for interesting activities; tangible rewards are detrimental to the intrinsic motivation; for college students, positive feedback enhances intrinsic motivation.


Learner agency

The more people can decide themselves; and the more choices one can make, the more they are truly motivated to learn.

learner’s awareness of responsibility for one own learning and development and accordingly the pro-active engagement in learning activities.

Learner agency, exercised as self-regulated learning
Learner agency

- trainees who engage in self-regulatory learning activities learn more than those who do not take responsibility (review study by Sitzmann and Ely, 2011)
offering tasks with a level of complexity that challenges the learners and which are experienced by learners as relevant

guided reflexivity to support the learner in monitoring how the process towards goal realisation goes, is a key aspect of selfregulated learning
interaction with peers, teachers/trainers, coaches and experts as sources of feedback and as role models

learner agency requires a safe environment
Collaboration and coaching:

- Building knowledge (together)
- Peer interaction
- Positive interdependence
- Accountable members

Direct interaction with teams to help the team members coordinate and task-appropriate use of their collective resources in accomplishing the work.
The various review studies are consistent in evidencing that students who work in collaborative learning settings outperform students in individualistic learning settings.

(Bowen, 2000; Johnson and Johnson, 2009, Kyndt, Raes, Lismont, Timmers, Dochy & Cascallar, 2013)
Importance of team feedback and guided reflexivity to enhance collaborative learning (review study by Gabelica, Van den Bossche, Segers, and Gijselaers, 2012)

Team coaching: focus on strenghts of peers, dialogue on expected outcomes; reflection and feedback dialogue; mutual trust (review study by Barendsen & Dochy, 2017)
Block 4
Sharing in and through action

learners collaboratively building knowledge and developing understanding through active involvement in challenging tasks
Active learning results in more learning gains than traditional lecturing (2014 meta-analysis by Freeman, Eddy, McDonough, Smith, Okoroafor, Jordt, and Wenderoth)

Learners who collaboratively engage in action and as part of it, discuss information, build on it, reason on it, improve, adapt and combine it, can eventually create new knowledge, ideas, arguments, etc. (Boon et al, 2016)

Constructive controversy leading to higher quality performance

- (Edmondson, Raes, Van den Bossche, Van der Haar)
Block 5
Hybrid learning

well-thought mix of online and offline learning methods
At least seventeen reviews about the effects of a combination of online and offline learning have been published, basically providing evidence that hybrid learning outperforms traditional offline face-to-face learning.

(e.g. Bernard, Borokhovski, Schmid, Tamim & Abrami, 2014; Liu, Peng, Zhang, Hu, Li, & Yan, 2016; Means, Toyama, Murphy, Bakia & Jones, 2009).

F2F meetings in combination with asynchronous communication tools help the learner to discuss the information visited online and the knowledge developed.
Flexible learning implies that employees have the opportunity to grow and develop by participating in formal training programs as well as by learning how to deal with new questions, challenges, problems as part of everyday work, mostly referred to as informal learning.
Transfer of training research showed disappointing results
Single studies on informal learning show multiple positive outcomes
Single studies on role of formal and informal learning indicate a stronger effect of informal learning on employability, compared to formal learning

(Messmann, Segers & Dochy, 2018)
Assessment as learning

Assessment is the act of collecting and interpreting information about the learner’s learning process and performance. The learners get to know if and how they progress, how far they are in the developmental trajectory towards their goals and their needs in terms of next steps to take.
Assessment as learning

contextualising assessment or searching for, collecting and interpreting information on the learning process and outcomes of the learner while s/he is working on a variety of the competences aimed for, relevant tasks.
Assessment as learning

When learning is social in nature, implying that developing and finetuning knowledge, skills and competences asks for relevant others to mirror, to question, to discuss, the community also plays a significant role in supporting learner’s to assess their progress and to decide on next steps.
Assessment as learning

When learning is a process of collaborative sense-making and developing new insights, assessment of how the group or team dealt with learning is as important as the learning of the individual.
Assessment as learning

Problem solving is at the heart of the learning process. Therefore, assessment informing the learner’s learning addresses how the learner deals with problem solving tasks.

Assessment that addresses learners’ agency is informative for the learner.
Assessment as learning

• Review studies consistently evidence the devastating motivational effects of a testing culture.

• Review study of Black & Wiliam (1984) showed significant learning gains for students in classrooms where feedback is more important than grading.

Assessment as learning

Gabelica et al review study (2012): powerful role of team feedback

Many single studies show positive effects of assessment as learning practices: feedback seeking; authentic assessment, group-level assessment (Slavin, 1983), guided reflexivity
HOW DO WE SUPPORT AND FACILITATE LEARNING?
Group assignment

Step 1: individual work (15 min)
Fill in the survey individually
Calculate your average score per building block

Step 2: Group work on best practice (20 min)
Share with the group members the building block you have scored the highest
Select in the group the building block with the highest score
Discuss in the group, in very concrete terms, how this highest scoring building block is implemented
Share Your Experience
HILL®

Urgency

Action / Sharing

Hybrid

Assessment-as-Learning

Flexibility: Formal - Informal

Collaboration / Coaching

Learner Agency

(Dochy et al., 2015)
You want to know more about the HILL model?

If you want to receive guidelines and practical tips on how to implement the HILL model
If you are looking for a training or consultancy/support

mail:dochyxdochy@gmail.com