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## Self-training module and serious game for a flipped classroom about liquid-liquid extraction for future engineers in lifelong learning

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## Self-training module and serious game for a flipped classroom about liquid-liquid extraction for future engineers in lifelong learning

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## Focus on your Learners by Involving them in the Process

**tools**

learning environment



virtual classroom



SCENARI publishing chain

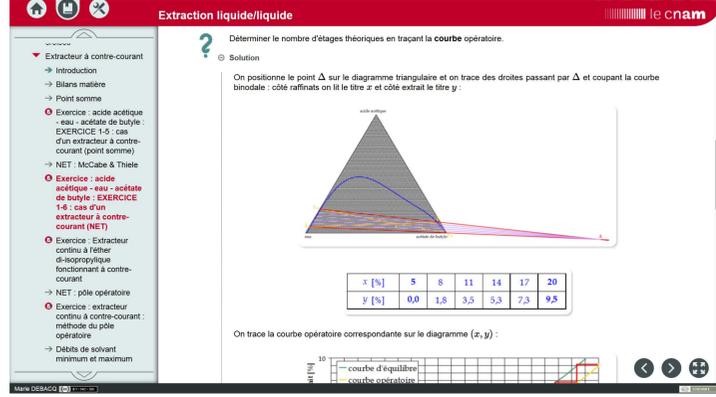
Russell's "no significant difference"  
Digital tool does nothing  
BUT pedagogical development enables much.

**module**



**embedded VIDEOS**

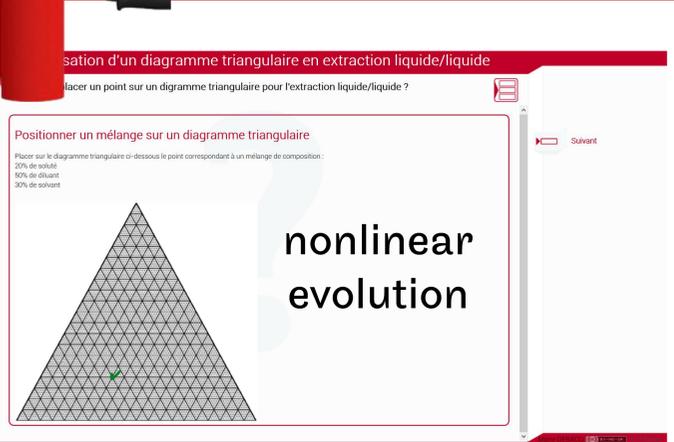
**QUIZZES & exercises**



x [%]	5	8	11	14	17	20
y [%]	0.0	1.8	3.5	5.3	7.3	9.5

**serious game**

Positionner un mélange sur un diagramme triangulaire



**nonlinear evolution**

**results**

More in-depth acquisition of knowledge.  
New skills (autonomy, **cooperation**, creativity, communication).  
True change of posture:  
✓ the teacher becomes a guide and is no more the only one who knows;  
✓ the learner becomes much more active and open.  
Requires more time than traditional teaching.  
The scientific content and the final level are not negotiable,  
but **we build together the means to get there.**

Don't flip out, it's just a flipped classroom!

