

ENHANCING SELF-LEARNING IN WEB-BASED COURSE USING PREDEFINED LEARNING PATHS

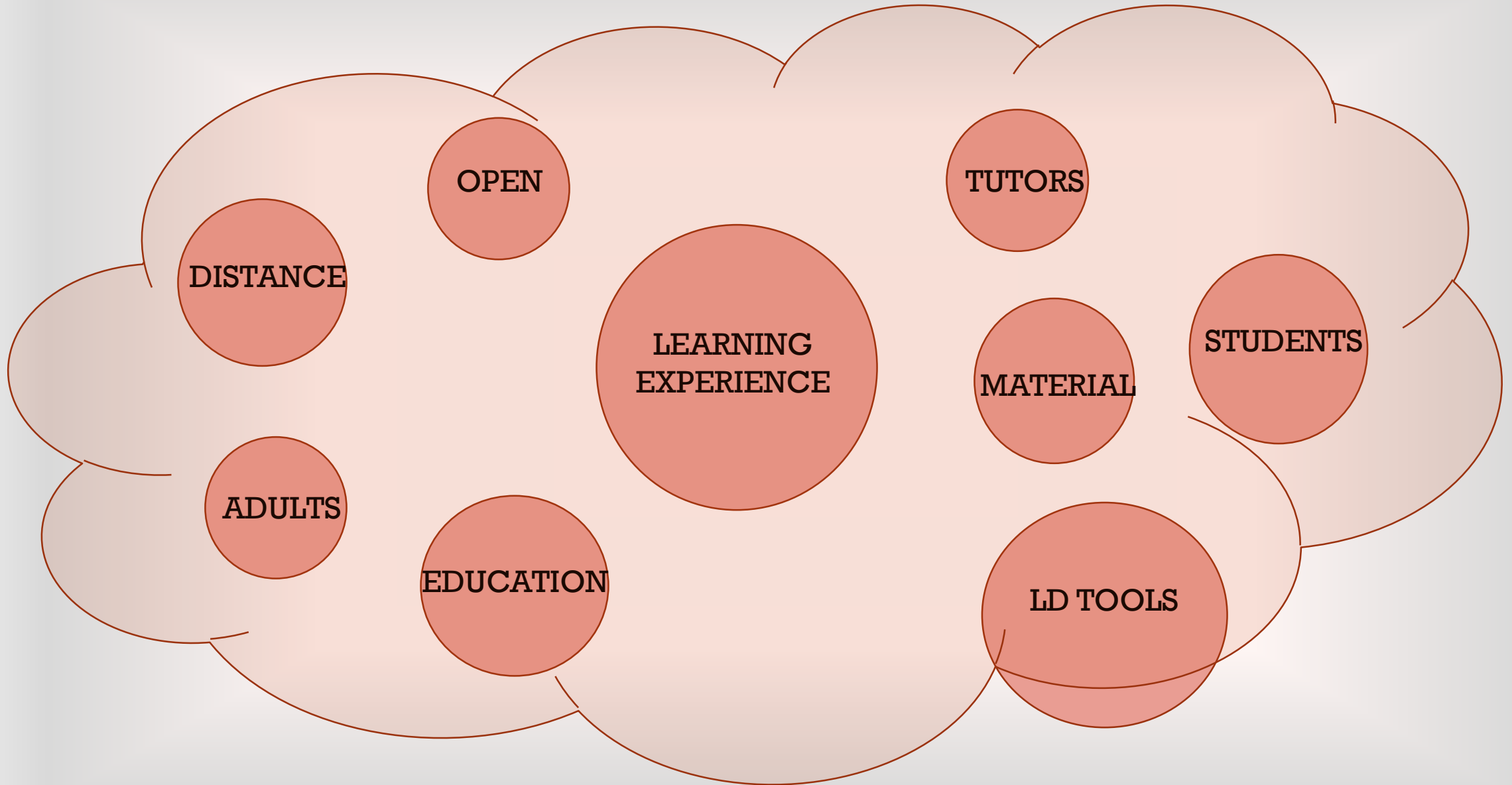
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ΕΛΛΗΝΙΚΟ ΑΝΟΙΚΤΟ ΠΑΝΕΠΙΣΤΗΜΙΟ
HELLENIC OPEN UNIVERSITY





DISTANCE

OPEN

TUTORS

**LEARNING
EXPERIENCE**

MATERIAL

STUDENTS

ADULTS

EDUCATION

LD TOOLS



THE MAIN AIM...

Provide practitioners with tools and templates



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graph TD; A[Provide practitioners with tools and templates] --> B[Facilitate the Learning Paths Process]; B --> C[Allow designers to adapt founding didactical principles]; C --> D[Enhance Learning Experience];
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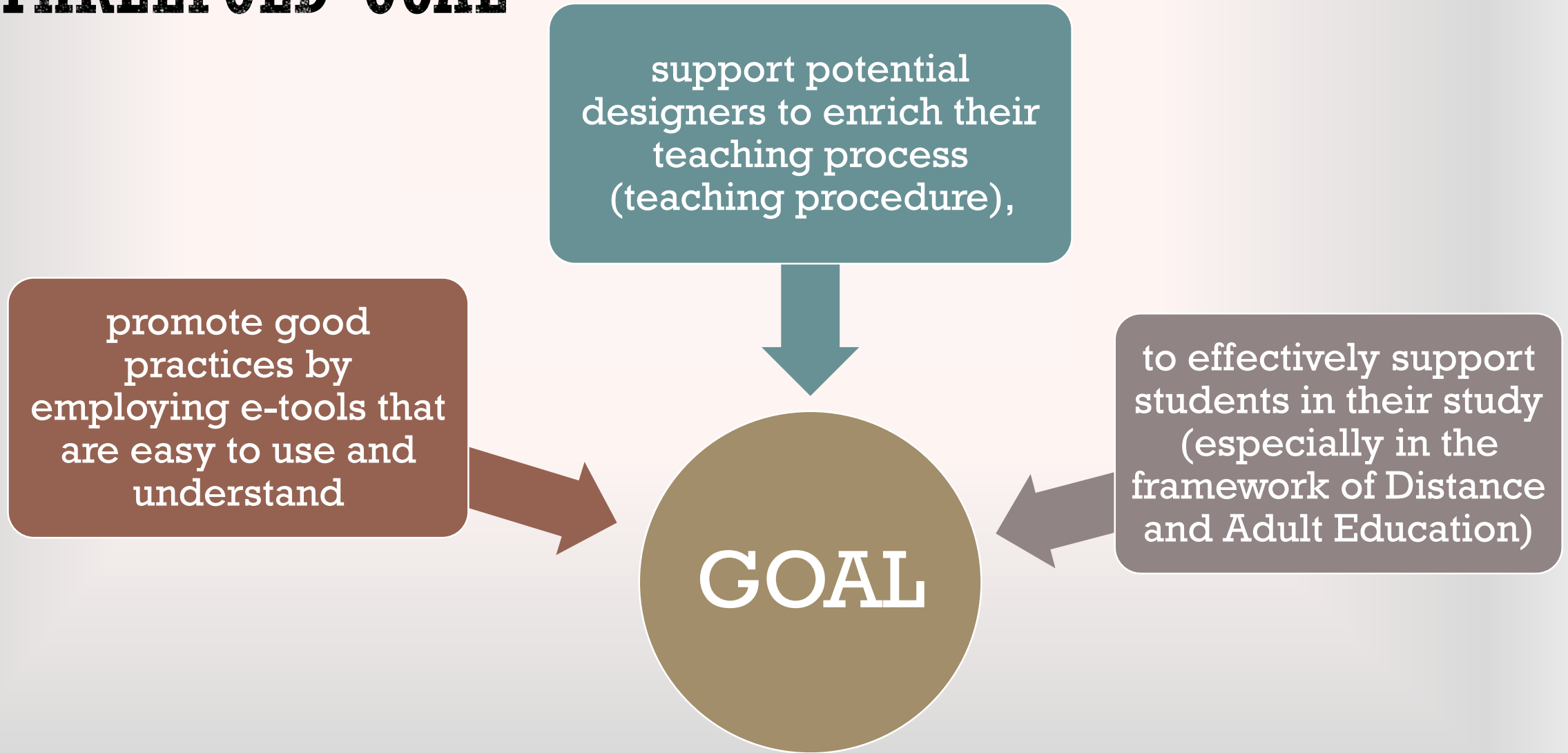
Facilitate the Learning Paths Process

Allow designers to **adapt** founding didactical principles

Enhance Learning Experience



THREEFOLD GOAL



Faculty support mechanism

- Developed in on-line environment
- Include repository of good practices & teaching techniques

A need for each H.E.I

- Develop good teaching practices
- Promote specific educational techniques applications
- Provide tutors with educational and technological tools

Enhancing Differentiated and Personalized learning

- Follow self-directed learning sequences
- Provide learners with a digital learning environment
- Promote new ways of dynamic adjustment of the learning flow



LEARNING PATH: DEFINITION — OUR APPROACH

“Learning pathway is described as the chosen route, taken by a learner through a range of (commonly) e-learning activities, which allows them to build knowledge progressively. With learning pathways, the control of choice moves away from the tutor to the learner.”

- In our approach:

The learning path: a specific procedure with pre-determined steps to be followed in an arbitrary order; a form of interactive branching scenario applied in online education.



FOCUS ON ... FEEDBACK

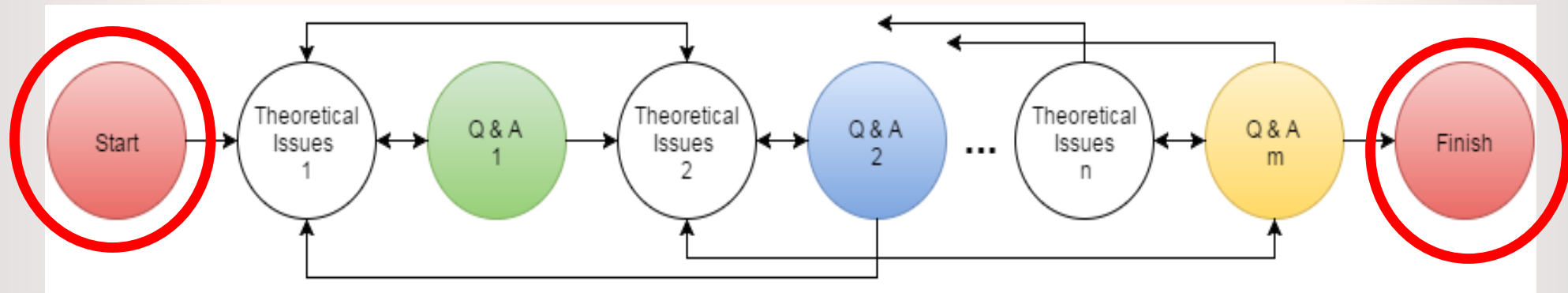
Self-instructional texts, self-assessment activities etc.

Maximization of Activity completion
(actual needs and learning level)

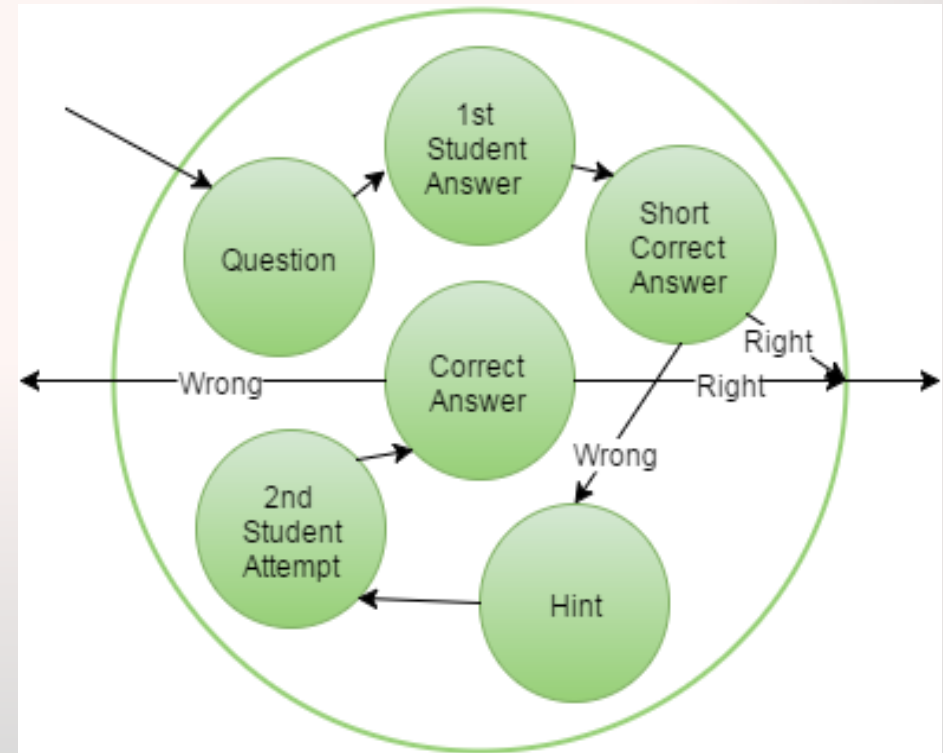
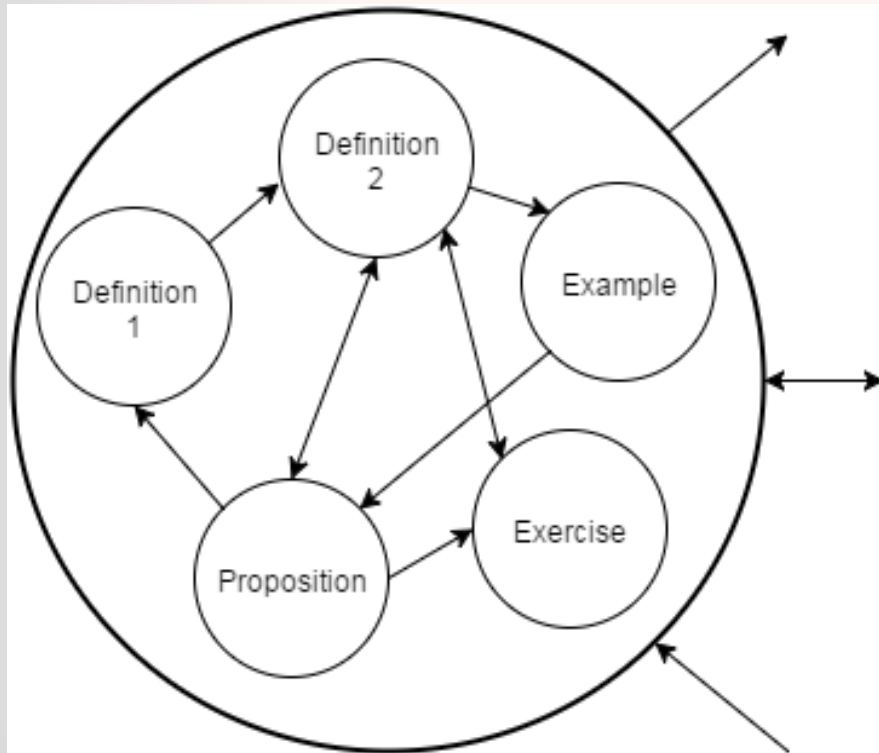
Instructive feedback



GENERAL FRAMEWORK OF PLPS



THEORETICAL & QUESTION NODES



THE BIG QUESTION...

- How can we ensure the optimum performance of the application and the implementation of educational techniques/strategies/theories?
- How can we ensure the optimum educational experience for the participants/potential learners?



PLPS' CREATION PHASES

Selection of the Course Module
(Concept of the Learning Unit)

Construction of a flowchart
(Backbone of the Learning Unit)

Selection of the LMS & e-Tools

Digitization of PLP
(Final e-ctivity)



DIGITIZATION CONTAINS...

The development of the educational content:

- (i) the development and processing of the suitably formed of the text and
- (ii) the gather of the necessary resources to be integrated

The designing and creation of the efficient transitions:

- the transitions essentially form the different paths followed by the user according to her need (i.e. unless she is satisfied with the information she being looking for)

The control of the different transitions

- to see that the reactions occurring leading to proper transition/learning path.



A PILOT IMPLEMENTATION OF A PLP IN MOODLE



IMPLEMENTATION PHASE

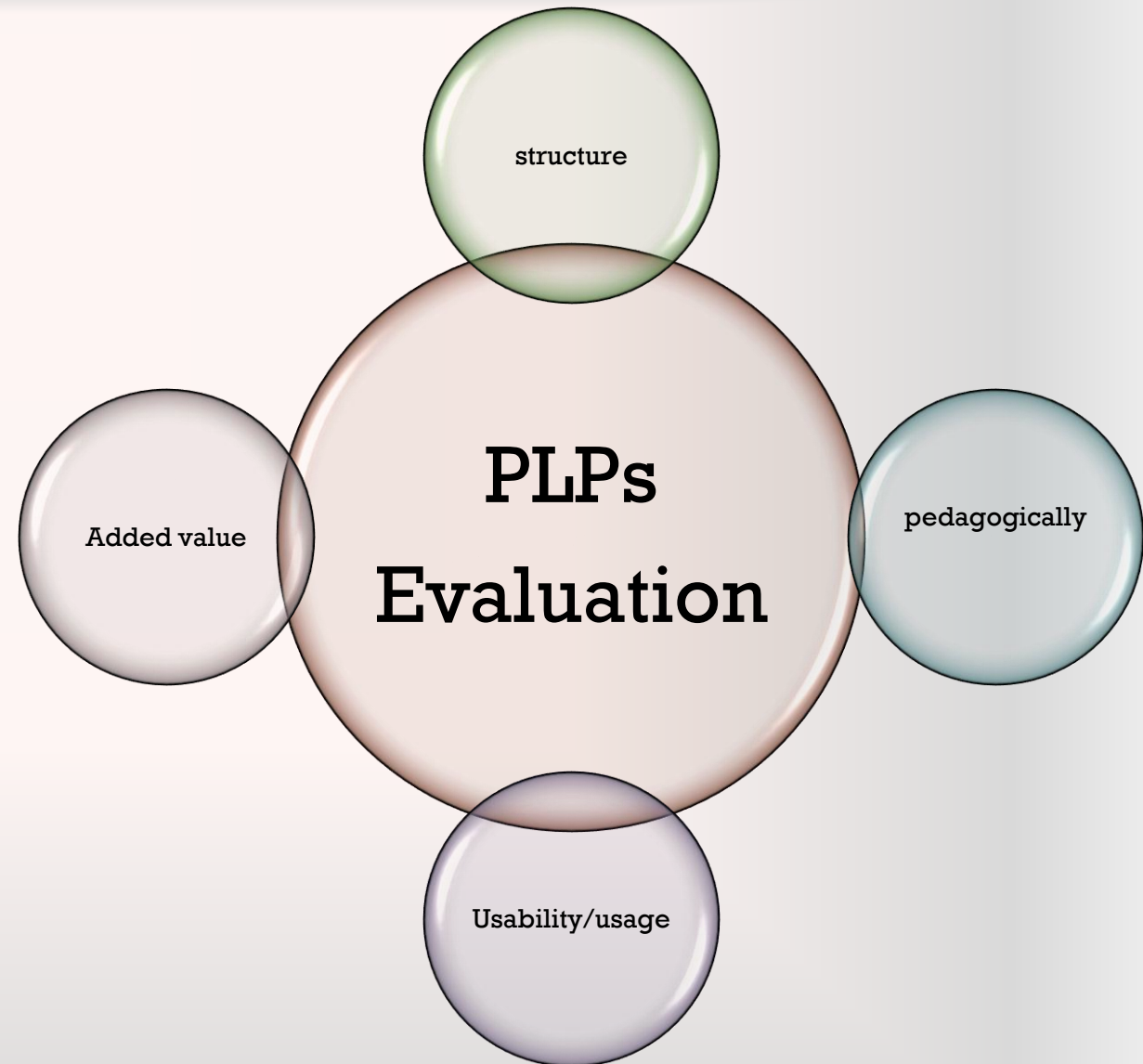
- **Moodle Lesson Module:**
 - allows the content to be structured in HTML5 format for creating self-directed lessons
 - provides a plethora of content presentation (content pages) and student assessment (question pages) tools.
- **Tutors** enrolled in the Information Systems MSc Postgraduate Program of the Hellenic Open University:
 - 14 tutors (35% % of the number of tutors of the course)
 - didactic notions borrowed from Computational Complexity Theory



EVALUATION OF GLDS

Generally:

- the results were positive in all the categories
- Tutors felt quite satisfied both with the process and its outcomes



PRELIMINARY EVALUATION OF PLPS (1/3)

- **75%** of them believe that the PLPs could be a good guide for the students to study basic didactic notions, along with the educational material offered to them by the HOU
- **78%** of them claimed that PLPs could extend the way of self-evaluating for the students
- **93%** of them agreed that PLPs may offer a quick and easy way for the students to revise the basic concepts for the final examinations
- **65%** of the tutors believe that PLPs can form an alternative way of students' preparation (concerning the revision of basic concepts while the students are preparing their written assignments,)



PRELIMINARY EVALUATION OF PLPS (2/3)

▪ **Usability:**

- One of the main issues that concerns a Teacher-Advisor of HOU is the organization of the agenda of the Contact Session with the students
 - **50%** of the tutors responded positive: the PLPs can be used as a method for feedback to set up the agenda of a Contact Session,
 - **36%** of them stated that PLPs can be used as an alternative way of feedback for the written examination.

▪ **Usage /Application**

- PLPs can enhance the learning process greatly.
- Nearly **80%** of participants were interested not only in participating in the creation of learning paths, but also in applying PLPs in the educational process.



PRELIMINARY EVALUATION OF PLPS (3/3)

HOW students can benefit from the use of PLPs:

- become capable of not only understanding basic didactic notions of the syllabus, but also revising their knowledge.
- under certain circumstances, PLPs might be a more efficient way to access the educational material regarding the conventional printed course book
- PLPs could be used to record statistical data, and the analysis of them in turn would help the improvement of the educational material

Improvements:

- PLPs must involve students more, so that they are enriched with more examples and self-assessment exercises.
- The improvement of PLPs in order not to burden the study time and study load of students.



CONCLUSIONS

Adoption of PLPs:

- **Gain**
 - deeper, richer and more diverse understanding of the benefits of integrating innovative educational tools in e-learning environments.
- **Enhance**
 - content quality due to the fact that the users focus on the content rather than the structure which is already taken care.
- **Promote**
 - Instances of good pedagogical practices to the tutors (and other stakeholders)
- **Guide**
 - even the non-pedagogically informed user to construct a pedagogically sound learning path



FUTURE IMPLICATIONS

Future work:

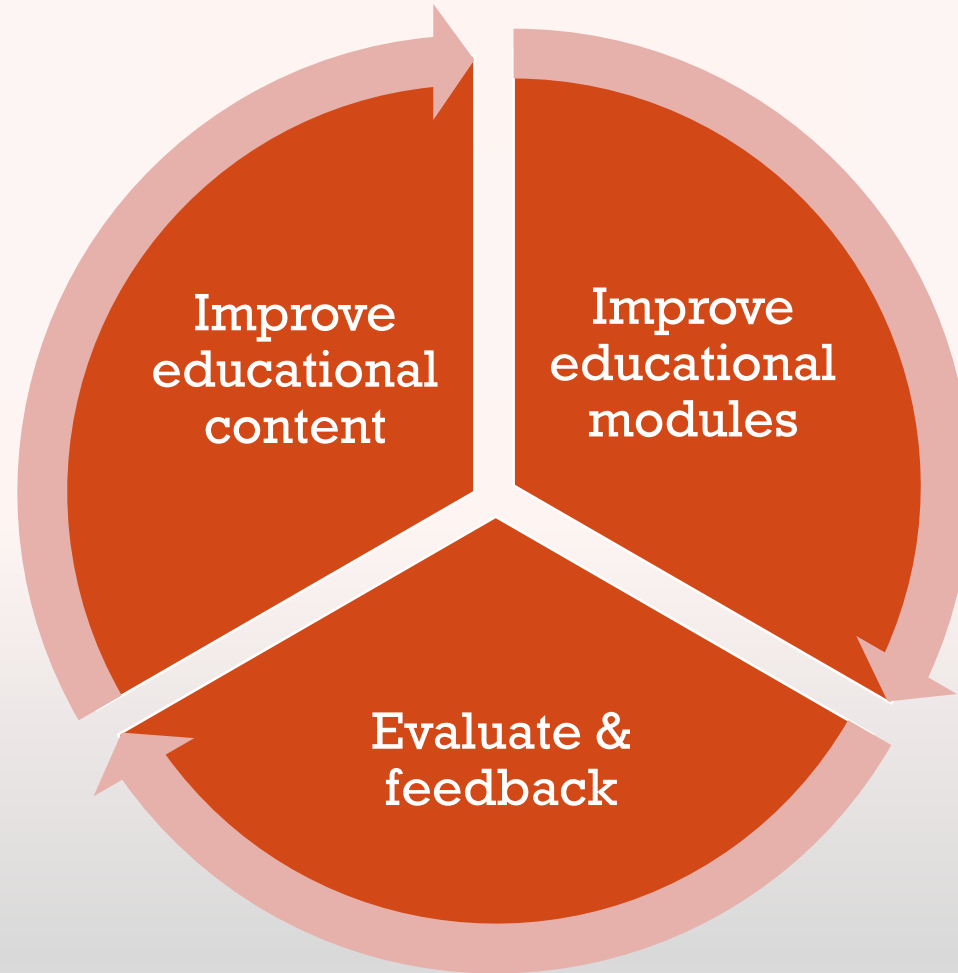
- ✓ a phase of PLPs' testing and evaluation with the students' contribution
- ✓ a further analysis according to the tutors' and learners' feedback

Issues remain to be addressed :

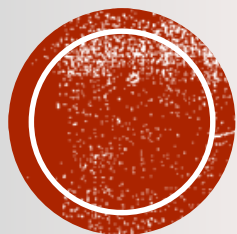
- ✓ generalization of those PLPs in as many cognitive fields as possible
- ✓ the feasibility of this approach
- ✓ the investigation of its usefulness



REMAIN UP-TO-DATE ...



THANK YOU FOR YOUR ATTENTION!



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