IMS Learning Design Level B and C: Concepts and Tools

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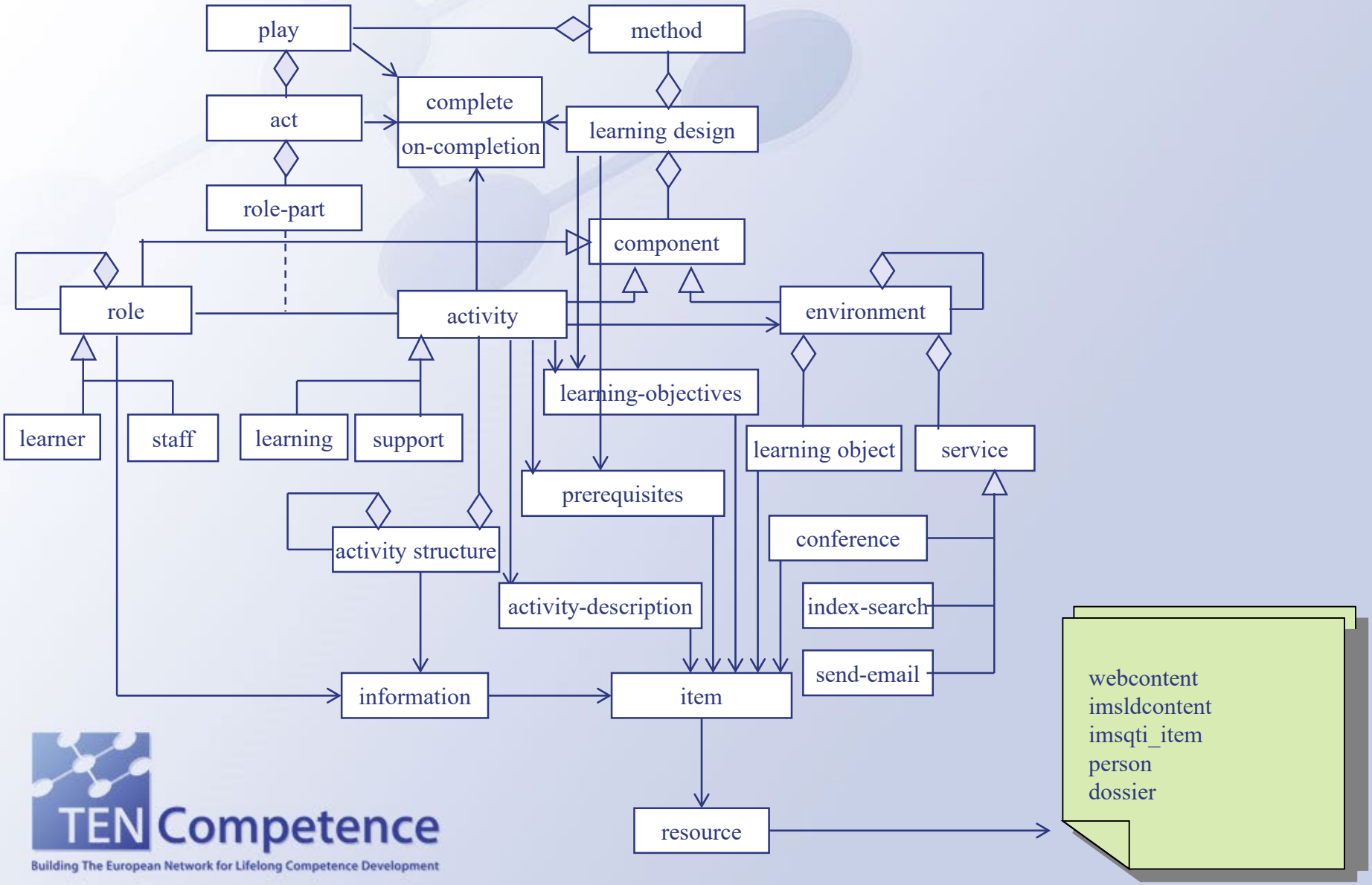
Overview

- Review of core elements at level A
- Core elements added at level B & C
- A peer assessment example
- Basic application of mechanisms at level B & C
- Advanced application of mechanisms at level B & C
- Creation of UoLs using CoSMoS

Review of Core Elements at Level A



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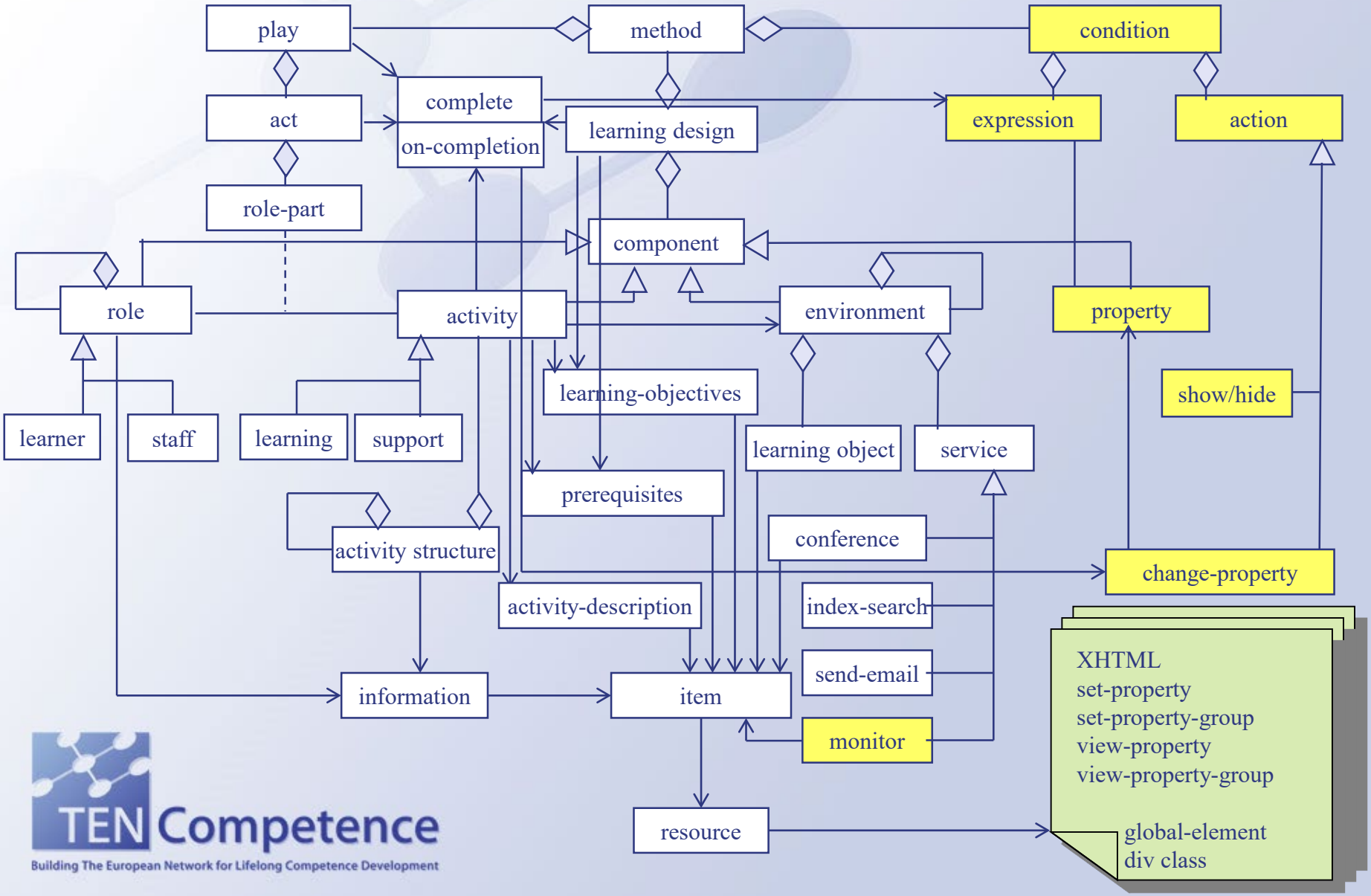
Core Elements Added at Level B



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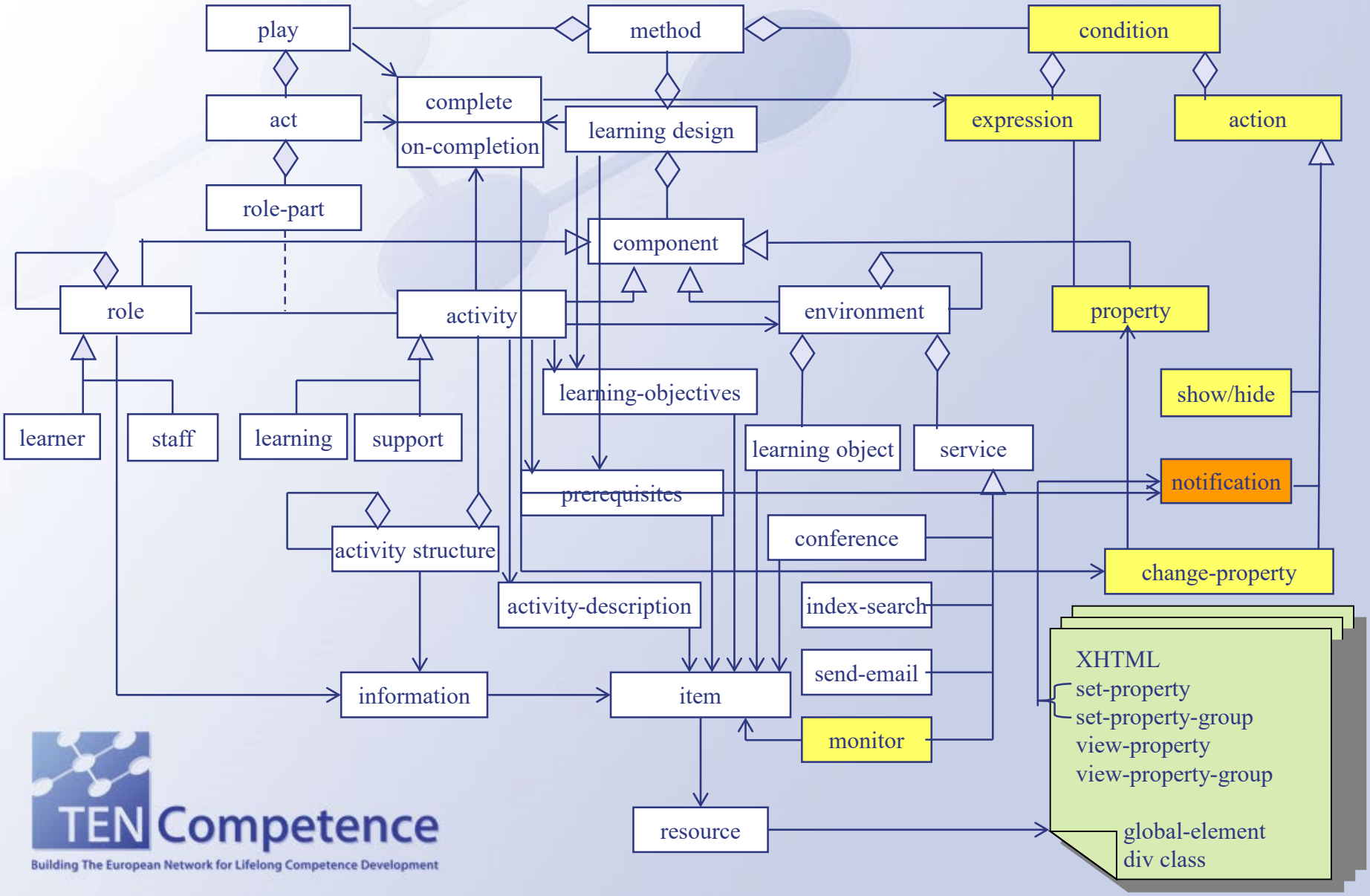
Core Elements Added at Level C



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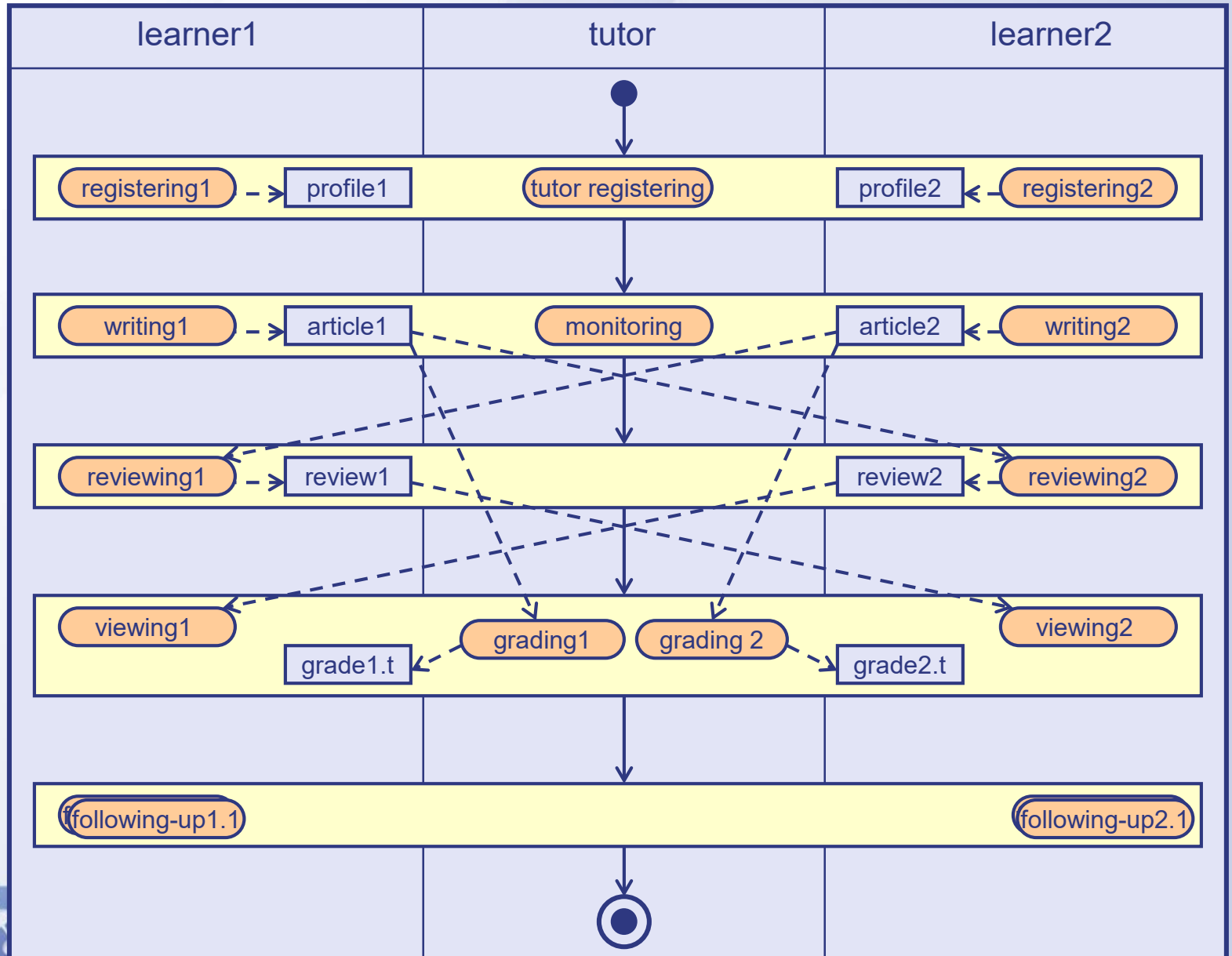
A Peer Assessment Example

- A tutor and two learners register to the assessment by providing personal information (e.g., title, first name, family name, a learning interest, preference info, and so on). After a user has registered, the registration information is visible and changeable for the user. It is expected that the complete user name with a title can be visible for others in this peer assessment process.
- Each learner writes an article (1000 words) about a topic according to his/her input learning interest. The tutor monitors learners' work and can decide to terminate this phase when both learners submit their articles.
- Each learner reviews the article of his/her peer (with author's name) and provides a review including comments (about 300 words) and the grade (ranged from 1 to 5) in return.
- Each learner can view the review from his/her peer (with reviewer's name). Meanwhile, the tutor will be informed to grade learner's article when peer's grade is available. The final grade of learner's work is calculated in a way that the weight of tutor's grade is 60% and the weight of the peer's grade is 40%.
- Each learner will be notified to perform an appropriate following-up activity according to his/her final grade.



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Basic Application of Mechanisms at Level B & C (property)

- Property type (including property group)

	normal	personal	role
run	Local property	Local personal property	Local role property
permanent	Global property	Global personal property	-

- Date type
  - Boolean, Integer, Real, String, File, Uri, Datetime, Duration
- Restriction types
  - Length, minLength, maxLength, enumeration, maxInclusive, minInclusive, maxExclusive, minExclusive, totalDigits, fractionDigits

Basic Application of Mechanisms at Level B & C (property)

- Personal information
  - e.g., family name, first name, title, learning interest, preference (personal global properties); title + first name + family name = name (local property);
- Performance info and product
  - e.g., article (local properties); comment and grade (outcome variables in QTI document and local properties in LD);
- Process control information
  - e.g., whether all articles have submitted (local property)

Basic Application of Mechanisms at Level B & C (property)

- How to set and view the value of properties
  - through using XHTML document
- How to set information
  - using the global element 'set-property'
- How to view information
  - using the global element ‘view-property'

Basic Application of Mechanisms at Level B & C (condition)

Condition: if <expression> then <actions> else <actions>

Expression:

algorithm operators: +, -, *, /.

logical operators: and, or, not, is, is-not, >, <, …

LD-specific operators: is-member-of-role, complete, datetime-activity-started, current-datetime, users-in-role, …

Actions:

show/hide: class, item, activity, environment, play, …

change property value

Basic Application of Mechanisms at Level B & C (condition)

- Conditional assignment
  - e.g., if peer and tutor graded, then assign *the final grade* as *peer_grade*learner_weight+tutor_grade*tutor_weight*
- Conditional tailoring content (text fragments)
  - e.g., if learner has registered then *show* registration-info else *show* registration-form
- Conditional setting visibility of information items
  - e.g., if a learner has submitted the article then *show* it else *hide* it in the environment where the article is stored
- Conditional setting visibility of activities, play, and environments
  - e.g., if a learner gets a low grade, then *notify* or *show* an appropriate activity

Basic Application of Mechanisms at level B & C (notification)

- Sending message
  - e.g., informing the tutor that a review has been submitted
- Triggering activities
  - e.g., if the final grade of a learner is greater than 3 then notify the learner to do a following-up activity, else to do another activity

Advanced Application of Mechanisms at Level B and C

- Supporting group interaction
  - e.g., exchange of information; sharing information; data-/task-driven;
- Supporting complicated process control
  - e.g., branch, loop, embedded, and concurrent processes (at play level)
- Supporting personalized/"groupalized" learning
  - e.g., person/role profile and performance info => tailoring content; configuration of activities and environments; allocating tasks
- Supporting predictable adaptation
  - e.g., other run-time info => tailoring content; configuration of activities and environments; allocating tasks
- Supporting formative and summative assessment
  - e.g., assessment result => following-up activities; run-time information => when and how to assess what
- Supporting new forms of assessment
  - e.g., peer assessment, 360 degree feedback, e-portfolio assessment

Creation of UoLs using CoSMoS

Collaboration Script Modelling System

- Tree-form-based IMS LD authoring tool
- Creating/removing elements and references using Drag&Drop
- User-friendly UI for editing elements at level B and C

Thanks for your attention!

Questions?

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