

Gameful Affinity Space Mission Management Final Presentation

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Introduction

- Our focus this semester was adding a higher degree of gamification in the affinity space by adding Missions, Quests and Games.
- To enable better collaboration among teachers, we proposed to implement libraries for the Missions, Quests and Games.



Background - Missions

- Previously known as Learning Paths.
- Instructors can fill in details of missions (name, description, etc.).
- Multiple quests can be created within a mission by instructors.



The 'Create LP' form is a vertical stack of input fields. It starts with a blue header bar labeled 'Create LP'. Below it are five grey input boxes: 'LP Name', 'LP Description', 'Age Group (10-12)', 'Subjects', and 'Other features (separated by comma)'. At the bottom are two blue buttons: 'Reset' and 'Save'.

Figure 16. LP creation form

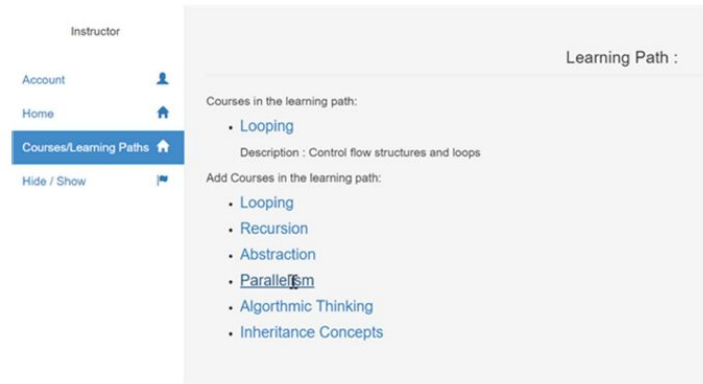
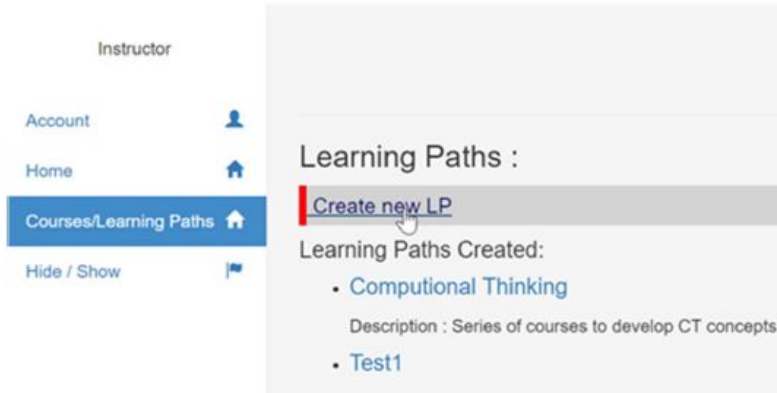
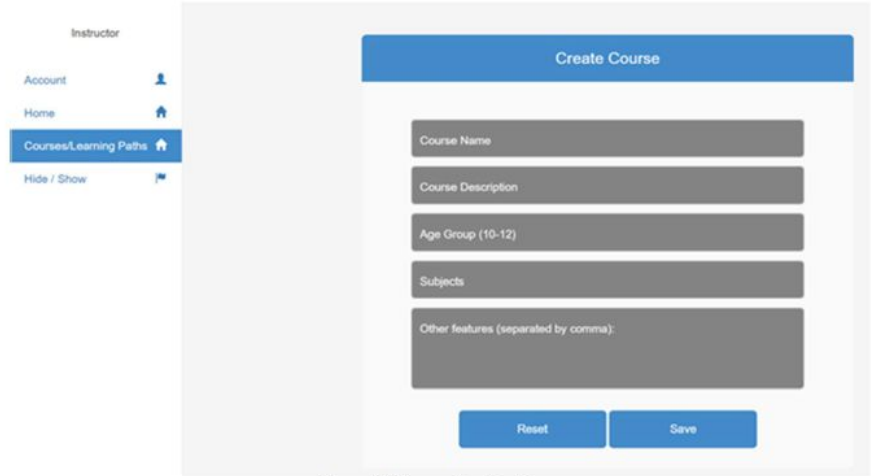


Figure 17. Adding courses to LP

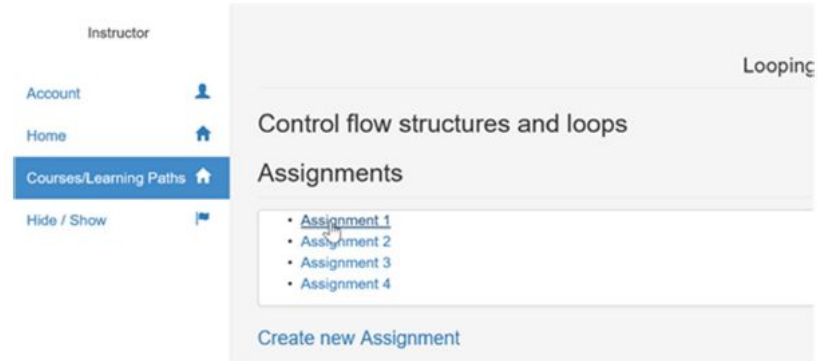
Background - Quests

- Previously known as Courses.
- Instructors can fill in descriptions of quests such as name, description, age group, subjects, and other features.
- Multiple games can be created within a quest by instructors.



The screenshot shows the 'Create Course' form in the Instructor interface. The interface has a sidebar on the left with links for 'Account', 'Home', 'Courses/Learning Paths' (which is highlighted), and 'Hide / Show'. The main content area is titled 'Create Course' and contains several input fields: 'Course Name', 'Course Description', 'Age Group (10-12)', 'Subjects', and 'Other features (separated by comma)'. At the bottom of the form are two buttons: 'Reset' and 'Save'.

Figure 9. Course Creation Form



The screenshot shows the 'List of Assignments' under a course in the Instructor interface. The interface has a sidebar on the left with links for 'Account', 'Home', 'Courses/Learning Paths' (which is highlighted), and 'Hide / Show'. The main content area is titled 'List of Assignments' and contains a list of assignments: 'Assignment 1', 'Assignment 2', 'Assignment 3', and 'Assignment 4'. Below the list is a button labeled 'Create new Assignment'. The interface also shows a 'Looping' section with the text 'Control flow structures and loops'.

Figure 13. List of Assignments under a course

Background - Games

- Previously known as assignments.
- Idea is that multiple assessments can be created in a game by instructors.
For now there is only a way to create one assessment per game.
- Instructors can fill in the assignment number within a quest.



The screenshot shows an instructor interface with a sidebar on the left and a main content area. The sidebar includes links for 'Account', 'Home', 'Courses/Learning Paths' (which is highlighted), and 'Hide / Show'. The main content area features a blue header bar labeled 'Assignment Creation'. Below this header is a text input field labeled 'Assignment Order No'. At the bottom of the form are three blue buttons: 'Reset', 'Design Assessment', and 'Save'.

Figure 10. Assignment Creation Form

Background - Assessments

- Part of the Visual Assessment Editor
- An assessment can be created for each game by instructors.
- Each assessment corresponds to a Game / Assignment ID.
- Games and assessments are more distinct than previously implied.

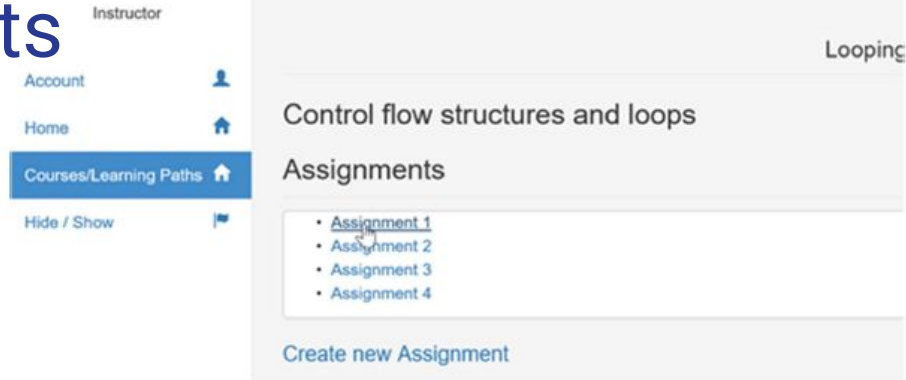


Figure 13. List of Assignments under a course

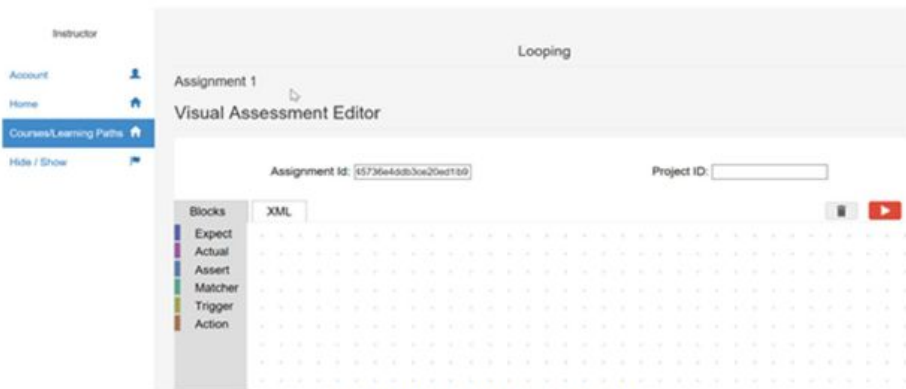


Figure 14. VAE integrated into dashboard

Goals

- Our proposal this semester suggested that our focus would be on Mission and Assessment Creations as well as Teacher's Mission, Quest, and Game Library Navigation.
- After closely looking at the Epics more urgent items were added to this list such as the editing of Missions, as well as Quest and Game creation and Editing.



Achievements - User Stories

- Mission Creation
- Quest Creation
- Mission Editing
- Quest Editing
- Student Mission Navigation
- Library Navigation



Additions - Mission Creation

- Previously named Learning Paths
- Instructor can now add specific areas of focus to missions.
 - This is implemented using treeOptions and a new model which is the curricularItemModel

Create Mission

Mission Name

Mission Description

Backstory for the Mission

Please select the Focus of this mission from below:

▼ Sequences

Problem Statements

Instructions

Recipes

Algorithms

► Conditionals

▼ Loops

Sample Instances

Repeating Sequences

Looping Forever

Conditional Looping


Reset


Save


Additions - Mission Editing


- Instructors can now add and update the order of quests within a mission
- Instructors can add premade quests straight to the mission they are editing

Instructor

Account 

Home 

Quests/Missions 

Hide / Show 

Mission : newLearningPathInst1

This is a description for the new learning path

Backstory : []

Quests in the Mission:

- [cname](#)
Quest Learning Order :
Description : qstory
- [this quest](#)
Quest Learning Order :
Description : this quest description

[Update Order](#)

Add from following Quests in the Mission:

- [this quest](#)
- [cname](#)
- [course3](#)
- [newQuest](#)
- [parth again](#)
- [firstQuest](#)

user = { "59f177c2dde6863f70b88f2d": "1", "59efd38ff6d2ef1d1c99cea7": "2" }

Additions - Quest Creation

- Previously named Courses.
- Instructor can now add a specific area of focus of a quest within a mission.
- An image can now be uploaded as a badge of completion for the quest.

Create Quest

Quest Name

Quest Story

Please select the Focus of this quest from below:

▶ Sequences

▶ Conditionals

▶ Loops

Please upload an image for Badge of Completion

Choose File

No file chosen

Other features (separated by comma):

Reset

Save

Additions - Quest Editing

- Quest details such as name and description can now be updated.
- Instructors can add as well as remove games in a quest.
- Instructors can update the order of games within a quest

Quest: this quest

Name:

this quest

Description:

this quest description

Update Quest Details

Games


x	Game	Assessments here Assessments here Assessments here Assessments here
x	Game new assignment	Assessments here Assessments here Assessments here Assessments here
x	Game my new game again	Assessments here Assessments here Assessments here Assessments here

Create new Game

Update Order

Additions - Games

- Instructors can now add a game with a name, game order, and game type within a quest.
- Note: It would be nice if instructors could add precreated assessments to the game similar to missions.



The image shows a 'Game Creation' form with a blue header. It contains three input fields: 'Game Name' with the value 'My Game', 'Game Order Number' with a dropdown arrow, and 'Game Type' with the value 'Game Type'. Below these fields is the text 'Add from following Assessments in this Game:'. At the bottom are three blue buttons: 'Reset', 'Design Assessment', and 'Save'.

Game Creation

Game Name: My Game

Game Order Number: ▼

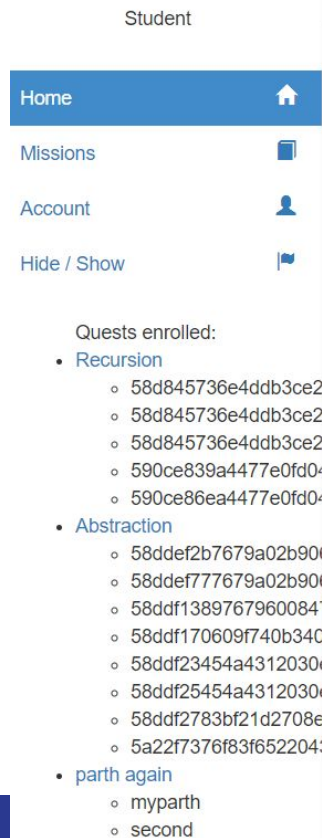
Game Type: Game Type

Add from following Assessments in this Game:

Reset Design Assessment Save

Additions - Student Mission Navigation

- Hierarchy of Quest and Games set. When enrolled quest is clicked student can see associated quests
- Student can now see the quests they are enrolled in the navigation bar as well as the assignments associated with those quests.
- This can be implemented as a treecontrol for easier navigation for a student.



Recent Courses

Abstraction

Parallelism

Recursion

Abc

no name

newQuest

Metrics Overview

Additions - Library Navigation

- 3 libraries
 - Missions
 - Quests
 - Games
- Currently, developing a framework for the same
- Further UI modifications can be done. It'll show a list of all items in the library.



Libraries

- Missions Library
 - All Missions
 - On clicking on a mission, traverse to Quest library (quests within that mission)
- Quests Library
 - All Quests
 - On clicking on a quest, traverse to Games library (games within that mission)
- Games Library
 - All Games in the community



Branch Cleaning

- Assessment Server (<https://github.com/cu-sage/sage-node>)
 - After merging other branches forked a development branch
- Affinity Space (<https://github.com/cu-sage/sage-frontend>)
 - After merging other branches forked a development branch
 - Current development on the new branch
- Towards the end of the semester all branches other than development and master will be dropped



Demo



Issues / Challenges

- Renaming caused confusion
- Working with bugs
- Limited knowledge of Angular



Future / Suggestions

- Documentation of existing workflow
- Clean up code (assignment vs. assignment - variable names)
- To combine the Front-end, SAGE editor, and SAGE assessment server into one server and repository as opposed to having them separated.
- Student being able to enroll in a Learning Path



References

- <https://gudangdaya.atlassian.net/wiki/spaces/SAGE>
- <https://github.com/cu-sage/Documents>
- <https://docs.angularjs.org/misc>



Thank you!

