

A Canvas-Integrated Team Formation and Analytics Tool

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Current Approaches to Forming Teams

- Random
 - Works with no preferences, skills, or needs
- Students Self-Formed
 - Unbalanced
- Manually
 - Only works in small classes
- External tool
 - Grumbler
 - Unfriendly spreadsheet interface, not integrated with Canvas
 - CATME
 - Expensive, complex, not integrated with Canvas

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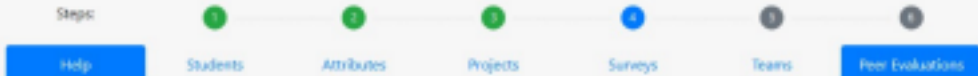
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Team Formation Web

Application

Steps



Help

Students

Attributes

Projects

Surveys

Teams

New Evaluations

COSC Team Analytics

Students registered: 20**Sections:** LD1 LD2 LD3[Import Course Data](#)

Current Step: Step 4

Design Surveys to Gather Attributes and Preferences

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Optional

Surveys allow you to gather information about your students attributes and preferences in order to place them into optimal teams. The team formation will generate quizzes on Canvas for students to fill out.

[Go to Surveys](#)[Skip this step](#)

Team Formation Steps:

Step 1 - Import Students

[Import Students](#)

Importing students is crucial for the Team Formation tool to do its job! All students currently enrolled in the connected canvas course will appear here once this step is complete.

Canvas Integrated

The screenshot shows a Canvas LMS course page for COSC 341 COSC 541 101 2020W Human Computer Interaction. The browser address bar shows canvas.ubc.ca/courses/64290. The course title is COSC 341 COSC 541 101 2020W Human Computer Interaction. The page features a navigation sidebar on the left with options like Account, Dashboard, Courses, Calendar, Inbox, History, Commons, Help, and My Media. The main content area displays a welcome message: "Welcome to COSC 341 Human Computer Interaction". Below the welcome message is a word cloud containing terms such as interaction, design, usability, testing, user interfaces, feedback, participatory, hypothesis, evaluation, context, and methodology. A section titled "Evaluation Criteria" is visible below the word cloud. On the right side, there are several action buttons: Import Existing Content, Import from Commons, Choose Home Page, View Course Stream, Course Setup Checklist, New Announcement, New Analytics, and View Course Notifications. Below these buttons is a "To Do" section with two items: "Grade 341 Background Survey" and "Grade Main Activity for Module 11". At the bottom right, there is a "Coming Up" section with a "View Calendar" button.

Select from within Canvas course 7

Use Cases

- Teams duration
 - Throughout a semester
 - Change based on milestone
- Team parameters
 - Student information: traits, skills, friends/enemies, time availability, personality, etc.
 - Project needs
- Users
 - Course instructor
 - Students (peer evaluation only)
- Visual analytics
 - Comparing and adjusting teams
 - Monitoring teams and students

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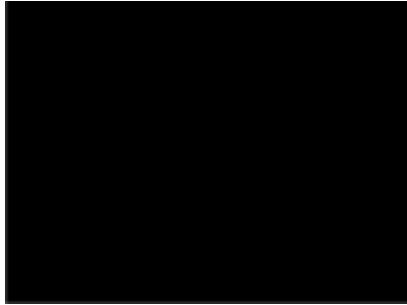
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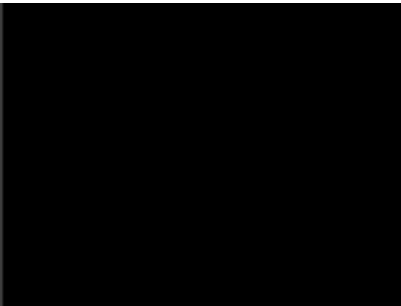
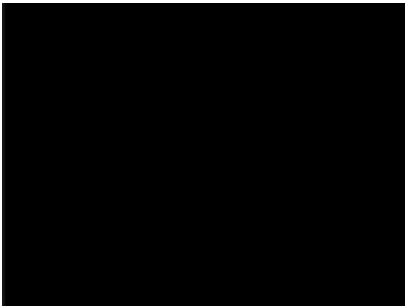
Tool Feature Demo

1. Importing Students 2. Creating Attributes 3. Creating Projects & Surveys





4. Generating Teams 5. Visualizing Teams 6. Peer Evaluations



Project Status

- Completed pilot studies in several courses
 - COSC 341 W2019T2
 - COSC 499 S2020T1-2
 - COSC 101 S2020T2
 - COSC 499 W2020T1-2
 - COSC 341 W2020T2
- Summer 2021
 - Refactoring and usability improvements
 - Accessibility standards: WCAG 2.0

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Development Team



Longland)