



Challenge Report

Hackathon Aubay 2024

Challenge 8 - Chamilo Skills Ranking

Done By the Yellow Team:

- Bruno Costa
- Pedro Appel
- Luís Lemos
- Pedro Santos

Index

Introduction	3
Problem Description	4
Objective	4
Solution Overview	5
Benefits of the Solution	7
Conclusion	8
References	9

Introduction

This report addresses a challenge within Chamilo's Skills Ranking section, where the skills wheel currently lacks useful information and presents formatting issues. The objective of this customization is to enhance the Skills Ranking wheel to display meaningful data, such as the percentage of courses completed and badges earned across different categories (e.g., technology courses, soft-skills courses).

Additionally, this report details the proposed solution, which allows skills within a subcategory to operate independently from assignments, offering greater flexibility in managing and evaluating competencies.

Problem Description

Issue: The Skills Ranking wheel in Chamilo currently does not display any information, and its formatting is not user-friendly. This limits its usefulness for educators and students who wish to track progress in specific skill areas.

Objective

Goal: To display useful information on the Skills Ranking wheel, such as the percentage of completed courses and badges earned within various course categories. This enhancement will make it easier for users to gauge progress in distinct skill domains.

Solution Overview

Purpose: The proposed solution allows skills to be managed independently within a subcategory, meaning that skills can be evaluated and assigned without relying directly on assignments or assessments. This offers greater flexibility to administrators and instructors.

Database Modification

- **Step 1:** Modify the `gradebook_category` table in the Chamilo database by adding a new column, `allow_skills_by_subcategory`, which controls whether skills in a subcategory can be managed independently of assignments.

- **SQL Query:**

```
ALTER TABLE gradebook_category ADD allow_skills_by_subcategory tinyint(1) NULL DEFAULT '1';
```

- **allow_skills_by_subcategory:** This column is of type `tinyint(1)`, where 0 represents “not allowed” and 1 represents “allowed.” The default value is 1, meaning independent skill management is enabled by default.

Source Code Update (Entity GradebookCategory)

- **Step 2:** Update Chamilo’s source code to activate this configuration in the application. Modify the `GradebookCategory` entity to include this new feature.

Implementation:

- In the file `src/Chamilo/CoreBundle/Entity/GradebookCategory.php`, uncomment the line corresponding to `allowSkillsBySubcategory` to connect the newly added database column with the application.

- Example:

```
// Uncomment the line in GradebookCategory.php
```

```
// private $allowSkillsBySubcategory;
```

Solution Overview

Chamilo Configuration Adjustment

- **Step 3:** Update the Chamilo configuration file to control how the independent skill management feature behaves. The configuration `gradebook_enable_subcategory_skills_independant_assignment` will determine if skills can be managed independently within a subcategory.

- Configuration Setting:

```
$_configuration['gradebook_enable_subcategory_skills_independant_assignment'] = false; // or true, as required
```

- o **Setting false:** Skills in the subcategory will function in the traditional, assignment-dependent manner.
- o **Setting true:** Skills within a subcategory can be managed independently of assignments, allowing greater flexibility in skill assessment.

Benefits of the Solution

- **Flexibility:** This enhancement allows educators to manage and assign skills more flexibly, without needing to link them to specific activities or assignments.
- **Enhanced Assessment:** Skills can now be evaluated on their own, independent of assignment scores, providing clearer insights into student progress in specific skill areas.
- **Customization:** This solution offers more options for customizing Chamilo's gradebook system, allowing it to better align with the needs of different courses or institutions.

Conclusion

The proposed modification to Chamilo's Skills Ranking feature addresses the lack of useful information and formatting issues by enabling independent skill management within subcategories. This solution involves database and source code updates as well as configuration adjustments to control the new feature's behavior.

By implementing this enhancement, Chamilo can offer a more flexible and customized skills management experience, providing educators and students with valuable insights into skill-based learning progress.

References

Chamilo Association. (n.d.). *Chamilo LMS Documentation.* Retrieved from <https://docs.chamilo.org>