# ASSESS

**Empowering Teachers to Design Innovative Assessment Tools in a Digital Era**

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# Review of existing toolkit for differentiated learning

# 2021

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## The Competence Assessment

The assessment of competencies is a challenge that several authors have defined and tried to systematize using different methods and tools. There are different approaches to competence assessment. For example, Njora et al. (2004) suggest applying multiple-choice tests, portfolio, scenarios, self-assessment and supervision. Echeverría (2002) develops competence assessment through self-assessment and heteroassessment, combining quantitative techniques, such as questionnaires, with qualitative ones, such as diaries, interviews or e-portfolio.

As Biggs (2005) states, self-assessment and peer-assessment not only sharpen content learning, but also allow students to learn meta-cognitive processes of supervision, which they will have to develop in academic and professional life.

In contrast, the vast majority of authors argue that competence assessment should be formative, procedural and evidence-based. In this sense, Martínez and Echeverría (2009) state that the most relevant instruments to be applied are: observation protocols, portfolios, test situations, balance interviews, etc.

What we know so far is that assessment has to be a formative process based on evidences. It must rely on the integral development of students, that is, the assessment must observe and evaluate practical and cognitive skills, emotions, social elements, etc. (OCDE, 2005).

Here we have a classification of instruments to assess knowledge, procedures and attitudes (De Miguel (2005):

- the traditional ones: objective tests (true/false, multiple choice, item matching, etc.); short answer tests; long answer, developmental tests; etc.
- those related to enquiry methodologies: assignments and projects; reports/memorandums of practical work; tests involving the performance of real and/or simulated tasks, etc.
- and others, more ICT-based, such as portfolios, to which should be added other instruments such as Wiki, collaborative work tools and platforms or Learning Management Systems (LMS).

## Competence Assessment Tools

The most common competence assessment tools are described below:

**A) Rubrics**

Rubrics are scoring guides used in the evaluation of student performance that describe the specific characteristics of a behavior, product, project or task at various levels of performance, in order to clarify what is expected from the student's work, to assess its execution and to facilitate feedback to the student body (Andrade, 2005; Mertler, 2001). Several authors rely on the usefulness of rubrics in formative assessment processes to improve student motivation to achieve better results (William, 2011). Rubrics allow for improved coherence and systematisation in the relationship between the competencies to be assessed and the observable indicators.

It is believed that this type of instrument can contribute to strengthening evaluation from the perspective of the characteristics of the subject and that it fits perfectly with the approach that understands evaluation as a process of self-regulation (Gairín et al., 2009).

**B) Portfolio**

It is considered the most important comprehensive management tool currently available in educational contexts (Mateo, 2007). The portfolio can be defined as the set of work carried out by students during their learning process with which they can identify, express and evaluate their difficulties, skills, abilities and shortcomings, demonstrating the learning acquired. According to Martínez Segura (2009), it constitutes an important communicative link between teaching staff and students, it enhances the students' protagonism, contributes to the development of competences and favours the guiding role of the teaching staff. Learning portfolios involve students, making them responsible for their learning and, in addition, promote reflection on the learning experience, making them reflect critically on their performance and make judgements about it.

## Review of Competence Assessment Digital Tools

The following is a review of existing evaluation tools and the main characteristics of these tools are listed in order to analyse the possibility of integrating some functionalities in the development of the ASSESS project itself.

**Online tools**

- **ForAllRubrics: https://www.forallrubrics.com/**

  – Possibility to import/export (PDF version).
  – It includes social network, rubric gallery/bookshop - public mode for sharing rubrics with community.
  – Possibility to create rubrics/checklist.
  – Options to configure the rubric:
    o Possibility to add columns/rows - sections, duplicate rows
    o Possibility to give colour to each level
    o Advanced editing - tags, assign standards, allow peer/self asses, score points, description
    o Possibility to add comments
  – Analyse section - different types of reports.
  – There is a dashboard for teachers with "My class" section. Teacher has the option to create classes and assign rubrics.
  – There is a help centre.
  – Registration with email student account
  – There is a dashboard for students: my teacher, my eportfolio, option to upload from GoogleDrive, my badges.

Contributions to the development of the ASSESS project:
Create the access to the student's account with the google account. Another option should be to recover the way of accessing that they have in the code.org platform with the account generator from the teacher's profile.
It is proposed to include the data analytics part and reports section in the development of the ASSESS assessment platform.

- **Idoceo: https://www.idoceo.es/index.php/es/**

  – It is an app for Tablet.
  – It starts from the definition of competences and standards, with a complex system of labels and acronyms.
  – It includes class attendance control.

- Competences are added by default, with the option to edit them: acronyms, description, icon, colour,...
- Possibility to manually add each competence in the rubric.
- Possibility of importing.
- Integrated in GoogleDrive and Dropbox

Contributions to the development of the ASSESS project:
In the development of the ASSESS tool, it was decided to select a web design that does not limit the use of the tool depending on the device you have.
It would be interesting to include the functionality to import and export the rubrics. For this purpose, an Excel template could be defined that is compatible with the tool and that facilitates the import into the tool.

- **CoRubrics: https://corubrics-es.tecnocentres.org/**

  - Consists of a plug-in for Google spreadsheets.
  - Possibility to create the rubric from an easily editable template.
  - The weight of each indicator can be modified in the rubric.
  - Students are added by name and email.
  - Includes a data analysis function.
  - Possibility to send reports to students with their evaluation.
  - Possibility of peer assessment

Contributions to the development of the ASSESS project:
Several of the functionalities of the ASSESS assessment tool development are based on this tool. The possibility of editing the rubrics, the sending of reports to students, the data analysis of assessment results, etc.

- **RubiStar: http://rubistar.4teachers.org/index.php?skin=es&lang=es**

  - Allows the creation and consultation of other users' rubrics. It guides the user throughout the creation process and suggests different indicators depending on the subject or type of activity to be evaluated.
  - No need to register, it is optional.
  - Create by area, type of classroom activity.
  - It is a rubric generator.
  - No data analytics.
  - It offers guidelines to create the rubric.

Contributions to the development of the ASSESS project:
No relevant contributions.

ASSESS

- **Evalcomix: http://evalcomix.uca.es/index.php/espanol.html**

  - It is a rubric generator.
  - No data analytics.
  - It is integrated into Moodle.

Contributions to the development of the ASSESS project:
No relevant contributions.

- **Rubric Maker: https://www.rubric-maker.com/**

  - It facilitates the elaboration of rubrics classified by educational levels and subjects. It is very simple and intuitive to use.
  - It is a rubric generator.
  - Includes examples of rubrics.
  - Possibility of defining educational level.
  - No registration required.
  - It is not specific to competence assessment.

Contributions to the development of the ASSESS project:
It would be interesting to add the label of educational level in our development.

- **iRubric: https://www.rcampus.com/indexrubric.cfm**

  - It is a rubric generator
  - There are examples of rubrics.
  - There is the possibility of a PREMIUM register.
  - It has a subject-based approach, not competence-based.

Contributions to the development of the ASSESS project:
No relevant contributions.

- **ERubirca: https://www.erubrica.com/**

  - Free online tool.
  - You can register or you can log in with a demo account.
  - Rubric configuration options: create new one, add title, score, category, level, group, etc.
  - It offers suggestions of categories and levels for the rubrics.
  - Possibility to export to word, excel, PDF.
  - Examples of rubrics available.

- Add students/groups:
  - Option to create groups/classes
  - Apply rubric to assess students
  - View individual responses or list entire class

Contributions to the development of the ASSESS project:
No relevant contributions.


- **Quick Rubric: https://www.quickrubric.com/r#/create-a-rubric**

- It is a rubric generator
- It is online.
- No student information.
- No assessment data recorded.


Contributions to the development of the ASSESS project:
No relevant contributions.


- **Trackcc: https://www.trackcc.org/**

- Student assessment data is available.
- Integrates behavioural assessment. Positive or negative can be assigned on participation, group work,...
- There is a record of the date of each item.
- Integrates attendance control.
- Comments can be added for students and reports can be sent to them.
- The evaluation of the whole class group can be observed.


Contributions to the development of the ASSESS project:
It would be interesting to add the functionality to post comments on the students' assessment and share this information with them. This could be information on how they could improve their assessment or information to clarify why they got one assessment and not another.


- **Additio: https://www.additioapp.com/es**

- Includes a planner.
- Includes a competence configurator.
- Includes widgets for report visualisations: list of students, attendance summary in table format, group attendance table, distribution of evaluations, student data, evaluation graph,...
- It includes a visualisation of the class plan that allows the visualisation of small work groups.
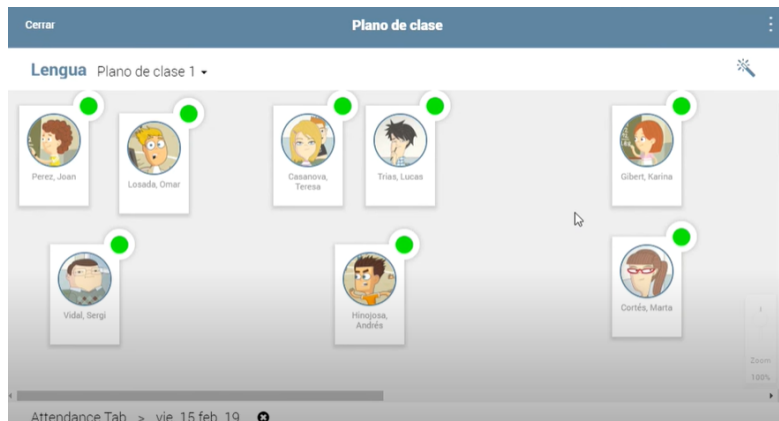
Contributions to the development of the ASSESS project:

This application includes several visualisation modes that facilitate the teacher's management and overview. Some of these visualisations could be included in the development of ASSESS, for example the possibility to generate graphs with the selected data, the possibility to visualise the working groups, etc.

**Offline tools**

- **Rubrics 4teachers:** https://www.teacherplanet.com/rubrics-for-teachers?ref=rubrics4teachers

In addition to the tools needed to develop rubrics, it offers a large repository that can serve as inspiration for teachers. The rubrics are sorted by subject and task type.

- **TeAchnology:** https://www.teach-nology.com/web_tools/rubrics/

It offers different rubric generators depending on the aspects and subjects to be assessed. It also allows you to customise and adapt already created rubric templates.