The Problems
with Grades and Assessments
and How to Solve Them ?

testwe

Summary

What you'll find in this document:

● Grading systems and assessment methods are not **adapted** to today's students and are **not integrated into the learning process**.

● The revolution of learning everyone is talking about today **won't happen** if we do not change, reform or transform grading systems and assessment methods.

● There are **pedagogical solutions** to change them and make them effective for learning:

  • **Diversifying** the way we grade and assess
  • **Engaging** students in the learning process without putting them in an examination atmosphere
  • **Transforming** grades and assessments into something totally different is also a growing trend, notably in K-12 and professional education. It still has its limits in Higher education

● **Optimizing teachers' workload is crucial** and might help at fully integrating grades and assessments into the learning process.

First Look

We cheered when MOOCs took over the web. We cheered when language apps came out on our phones and laptops. We cheered when schools and startups proposed courses and kits to help children learn how to code. We cheered when blended learning and flipped classrooms made their way into our schools and universities. The list of innovative Edtech tools goes on.

Still, exams are relatively the same. Frustrating, they take time and money, aren't used plainly for learning... Eventually, grades and tests are reduced to being performance indicators.

Looking at photographs of exam classrooms throughout the years, it is even more blunt to see **how much they have not changed**. The way we grade, the way we take assessments and how we create them is almost the same as a century ago. This is either **worrying** or **alerting**.

Just think about the fact that the core of our Education today is **based on grades as performance indicators**. They are the core of an Education based on the industrialist model that hasn't changed for almost a century.

The problems with assessments and grading today

There are facts and numbers, which prove the inefficiency of assessments and grading today.

● In 2018, in the US 25% of 13 to 18 year-olds students are affected by test anxiety. When you take every student, the number can rise up to 40%.

● In 2017, 58% of students have sleeping troubles in France due to exams.

● Grades tend to push students to avoid challenges who prefer easy paths in order to have a better academic performance. It is the first step of a bad orientation.

● In France, professors and graders spend in average **25 minutes marking one copy** (according to a poll conducted with our clients in 2017)

● Assessments aren't explicitly considered as a part of a learning process due to the overwhelming importance of grades. Thus, they are not used by professors because they prefer to adapt their teaching method depending on their students.

Conclusion: the current state of assessments and grading systems have a huge impact on learning, on the improvement of teaching, on health and on the student's future.

In the end, we tend to forget the meaning and the goal of assessments and grades. Should we grade less, assess less, or change radically our method? This is an interesting debate on which we should all take a look at and participate.

Fact is that there won't be a true revolution or a great reformation of Education without a deep transformation on how we create and take exams at school, at university, etc.

Why this white paper?

This white paper will investigate on the problems of grading systems and assessment methods. It will also analyze the different solutions that could significantly solve the problems presented.

- First, we would like to catch the core, the real objective for assessments and grading in the learning process.

- Once there, we will analyze several solutions that pave a way for an improvement of assessment methods and grading systems, in terms of:
  - Pedagogy
  - Technology used
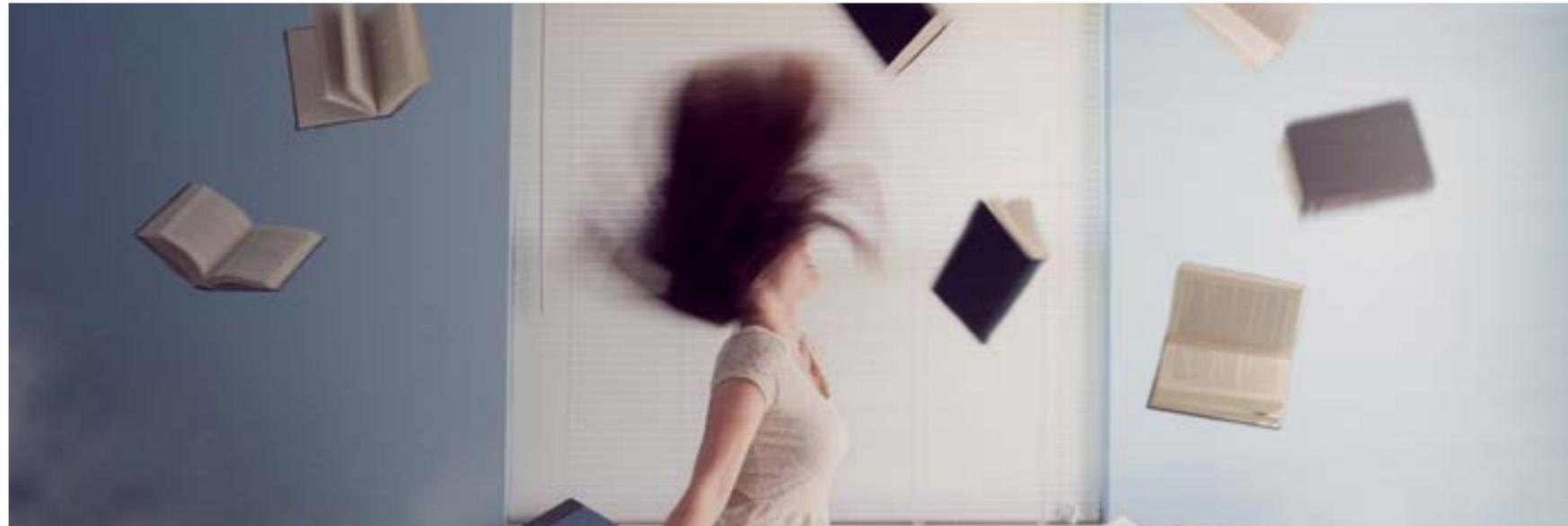
The goal of assessments and grading

Grades and assessments are tools for professors. That's all it should be; tools to attain several goals.

- Monitoring students, guiding them through their learning process

- Producing feedback for students to help them understand what they should improve and how to do so

- Administration purposes

Nevertheless, assessments and grades' goals are shifting and the need for a deeper follow-up instead of a «passing/failing» indicator is important for learners.

Strangely, monitoring and feedback, the two most important current goals already have the means to improve students' learning. But is it working today? Is the feedback helpful enough for students so that they feel less anxious concerning their tests and grades? Not so much.

They are ways to make assessments better by creating different sorts of them, more inclined to help students learn, which will lead to decrease the anxiety rate. They are tools that help to optimize professors workload so that they can focus on their students.

Diversifying exams

Diversifying exams and the way we grade is the first element we think about when it comes to pedagogical improvement. With so many different learning content or learning formats (online, in-class, conference or simulation classes) brought up by the famously renowned **blended learning** and **flipped classrooms** paradigms, it has become mandatory to adapt assessments to a course, to students, to a context and to use different sorts of exams.

Blended learning *is a method that mixes the use of different formats and environments to fulfill teaching/learning. For example, a teacher can decide to put his course content online, which will be followed by the student at home, and organize talks, debates and activities in-class to go further. The use of several environments* has shown positive impacts *on engagement and motivation from students.*

Flipped classroom *is a blended learning approach that proposes students to access learning content at home in order to learn further and discuss the different subjects in class. This approach aims at igniting students' curiosity to learn further by himself using several different device, environments and interactions.*

The goal is to **comply with the students' expectations** when they enter an exam session. They learned something in a way, thus **they should prove they have learned "well" in the same way**.

Indeed, the less surprising exams are, the more stress-free students will be. Let's remind ourselves that, for example in France, 58% of students have sleeping troubles and feel anxiety because of exams. After all, we tend to forget it, but assessments are only a mean for students to give feedback on what they have learned.

Nevertheless, diversifying tests and grading systems is still complicated, there is an important debate happening right now in Education, and it is all around **learning design.**

Learning design *is the formation of a pedagogical scenario aiming at building a coherent teaching/learning framework, which will ensure a great learning experience for students and a clear path for analysis and improvement for professors.*

Several verified solutions exist to efficiently diversify assessments and grading while keeping an effective learning design.

Different kinds of tests

Using different sorts of testing means varying between summative, formative and diagnostic forms of assessments. It is, at the moment, done correctly.

There can be also different formats of tests that can adapt to students' way of learning and how they have learned the material during class time for instance. We call these **alternative assessments**.

Alternative assessment *are forms of assessing and grading that focus on what a student can do with the knowledge acquired. Opposed to standardized assessments, alternatives are generally generated by teachers and not the administration, particularly because they tend to adapt fully to the students' learning, a trait mainly observable by professors. Alternative assessments generally let professors collect a lot qualitative and comprehensive data on students' learning.*

Three examples are interesting here.

- **Visual representation** is about asking students to represent visually (by mapping or drawing for example) a concept in the most comprehensive way. It gives professors an understanding of how students engage personally with a piece of information and with what they have learned of the materials.

- **Students' presentation** seems like a "déjà-vu" but it is a model that works. Let a student choose a topic, present it, explain to his/her peers what he/she has learned and let him/ she be able to answer questions in a constructive manner.

- **Portfolios** are considered as a trendy alternative assessments today. The aim is to compile students' learning in one document in which one will find blog posts, videos, audio recordings thoughts, all produced by a student all across the course or the diploma that he/she is doing.
Combined with tests and traditional assessments' results, professors are thus more able to understand the progress learners are showing continuously.

Alternative assessments are great in terms of pedagogical and learning improvement. Nevertheless, it has constraints.

For instance, the time invested due to the high adaptation of tests to learners.

Engaging assessments

It might be the best solution to keep students engaged in the learning process whilst being tested. By multiplying tests in-class in playful ways, it has been proven that students were learning much better while feeling less anxious.

The best we know about is Wooclap, an audience system response app (also a Belgian startup) that uses smartphones as a learning device.

The concept of this flipped classroom-tool is very simple. Professors, during their class time, can make sure their students learn by letting them answer quizzes on their own smartphone. The result is that students stay engaged and learn better!

Why is engagement so important that it became one of Education's buzzword today?

Engagement is the ability of an individual to stay active in the learning process, to keep his brain working on ideas and on what is the professor are talking about. It is also a phenomenon triggered by positive emotions.

Here's the magic. Engagement is **triggered by positive emotions, located in the brain's prefrontal cortex** as Neuroscientist Richard Davidson explains. What's also in it? Everything related to **memory**.

Thus, **being engaged means creating a relationship between positive emotions and memory. That's how you entertain learning**.

There's more. To be considered a long-term memory, explains Augustin de Walque, a student and author at EdtechReview, an information must pass by the reticular activating system (RAS) that will act as a filter.
The best way to memorise is by "[...] creating a connection with a topic and reactivating the information by repeating it and using it in different ways" writes de Walque. Like, by using a... smartphone for example?

Tada! You got it. And the Belgian startup perfectly understood it.
Using this kind of solution favours not only learning but lets the professors collect data on learning: data that can be graded in a more traditional way. In anyways, it helps students to get ready and be less anxious in the case of grand, crucial assessments.
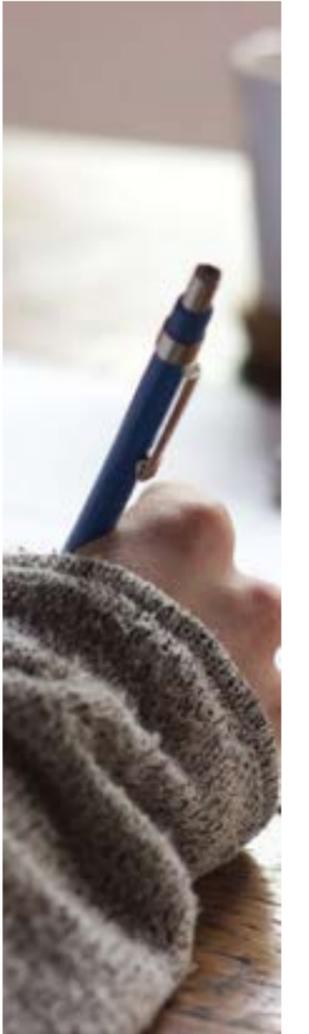
The case of the No-Grades movement

Teacher Throwing Out Grades

Teachers Throwing Out Grades (TTOG) is a **growing community of teachers who simply decided to stop grading**. The Facebook group now counts nearly ten thousand members sharing tips on how to stop grading while helping students learning better.

The goal of this approach is to stop continuing with the winning/failing side of grades that produces inequalities, toxic competition and ineffective development at school (K-12 and higher).

▶ These innovative classes favour formative feedbacks over exams. Teachers meet students individually or with a group of students to discuss what they have done.

▶ Students learn to assess themselves and set goals.

▶ Students' progress is based on a Mastery level scale that helps them focus more on the skill rather than the grade (Mastery-based learning is not new; Benjamin Bloom, a professor at the University of Chicago and an educational psychologist, developed the concept in the 60's).

The method has proved that it worked. In a New-York Middle school *"in the 2013-14 school year, 7 percent of its students read at grade level, and 5 percent met the state's math standards"* writes Kyle Spencer for the New York Times "two years later, 29 percent were proficient in English, and 26 percent proficient in math".

An Innovation Classroom by Don Wettrick

Don Wettrick
Founder of StartEdUp and Innovation Coordinator at Noblesville High School

Don Wettrick, founder of StartEdUp Innovation and Innovation Coordinator at Noblesville High School showed an even more impressive example of pedagogical innovation that was much **acclaimed by education and innovation specialist like Tim Ferris, Seth Godin or Stanford Professor Tina Seelig.**

The **Innovation Classroom** starts with 7 weeks of more or less traditional classes where teachers and students watch, read and discuss several subjects, problematics and other learning content.

The goal here is to **ignite the passion and curiosity of learners for a particular subject** that they will finally determine at the end of the phase.

Once they determined it, students must learn everything they can on it, build some expertise that will be displayed on a Youtube channel, a website, a blog or any other digital format.

The teacher invites students to think about their chosen subject and problematic in order to give out solutions to this problem, or simply to help others learn about their subject.

There are no grades in this class. In fact yes there are but in a different way. **Students set for themselves goals** using the SMART method.

Throughout the year, they'll give feedback on their progression by posting blog posts, videos; by doing presentations, exchanging ideas with the others and so on. The professor guides them through their project.

The class is about students **managing their learning project**, leading it even toward an entrepreneurial project (like two of Don Wettrick' students planning to build a school in Africa). All this through a process called ROTH Ira.

ROTH Ira, as explained in the blog Cult of Pedagogy, stands for Realization, Open discussion, The Tussle, Homogeneous grouping. Roth helps them develop their project once they chose their idea.

"*Once they have their project development plan and start to put it in motion, they guide themselves using IRA method.*

IRA stands for Ideation, Reflection, Adjustment. Basically, it means students enter a process of developing ideas, testing them, getting feedback and adjust the product/ project according to the feedback."

The No-Grades movement shows interesting perspectives for a future of learning where grades and assessments are, not absent, but simply reworked, rethought.

What about No grades in Higher Education?

Nevertheless, although this approach may work perfectly in K-12 and professional education, as it does today (take a look at Finland and corporate universities using competency-based learning); **it may still be difficult to implement in Higher Education**.

Indeed, companies and organizations need standardized indicators of proficiency in order to assess the future candidates.

On the contrary, according to **Sara Isabel Marín Zapata, International Accreditations Analyst at the Colombian University EAFIT**, innovation in grading is totally compatible with Higher Education institutions.

Sara Isabel Marín Zapata
International Accreditations Analyst at the Colombian University EAFIT

In fact, it is more and more common at EAFIT university. For example, *"one of our professor of our Master program of Human Resources Management, instead of filling the rubrics of his students himself in order to benchmark their skills,* **simply went to them and gave them the rubrics**. *He wanted them to* **assess themselves** *and after some conversation with each of the students, that's what they did"*.

"And they did it well", she finished. It proves that **self assessment works in higher education even for something as important as completing rubrics** that will determine and benchmark the continuous improvement of a school!

Is this compatible with accreditations like AACSB when such innovative moves are put in place? *"Totally"* says Ms. Marín Zapata, *"accreditations* **organizations like AACSB are very flexible and are willing to adapt and accept any innovative tests, as long as you have data to prove that this is beneficial to the continuous improvement of learning**, *everything is permitted"*.

Giving more importance to self-assessment and competencies mastery is surely the sign that things are changing, even in Higher Education.

"Although it works for EAFIT university, it might not work somewhere else" Ms Zapata stressed. *"In Colombia, students aren't very much attached to their grades, they prefer to concentrate on what they learned, and what they can do with it"*.

This deserves an analysis. Because until this approach proves that it works on a large scale, we cannot change drastically assessments and grades today.

Diversifying them is thus a priority, integrating them into the learning process and making them engagement tools is also a priority.

However, there's one **crucial factor** that might more or less directly make grading and assessing great tools for learning: **teachers' workload optimization**.

Optimizing teachers' workload to empower grading and assessing in the learning process

Another challenge with grading and assessments is the time spent on it without being able to fully improve learning. **Marking exams takes time** and doesn't tell students how they could clearly improve, what they missed nor does it clearly indicate to professors what their course content lacked.

Logistics are also an issue. Papers sometimes get lost, sending copies to international students seems to be "very problematic" as affirmed by one of our partners. Organizing exams with a task force of proctors, markers can also be expensive and not productive in the end.


e-Exams digitize the whole exam process. From assessments creation to grading. That means, a good e-Exam solution should:

- let a professor create a test in **no time** with a **maximum of resources available** to make sure skills are being integrated by students

- let students take their exams on their **own device** (tablets or laptop) - BYOD - in a secure way, from their home or in class

- **automate or simplify grading drastically**, offering the possibility to skill track learners throughout their tests

Now there is more to this. e-Assessments are composed of a pretty large group of very diverse solutions. We find actors that do:

- only online/ online - offline solution

- distance e-Exams (Proctor solutions) /in-class e-Exams

- summative e-Assessment / formative e-Assessment/ both

- data analytics tool/ No Data analytics tool
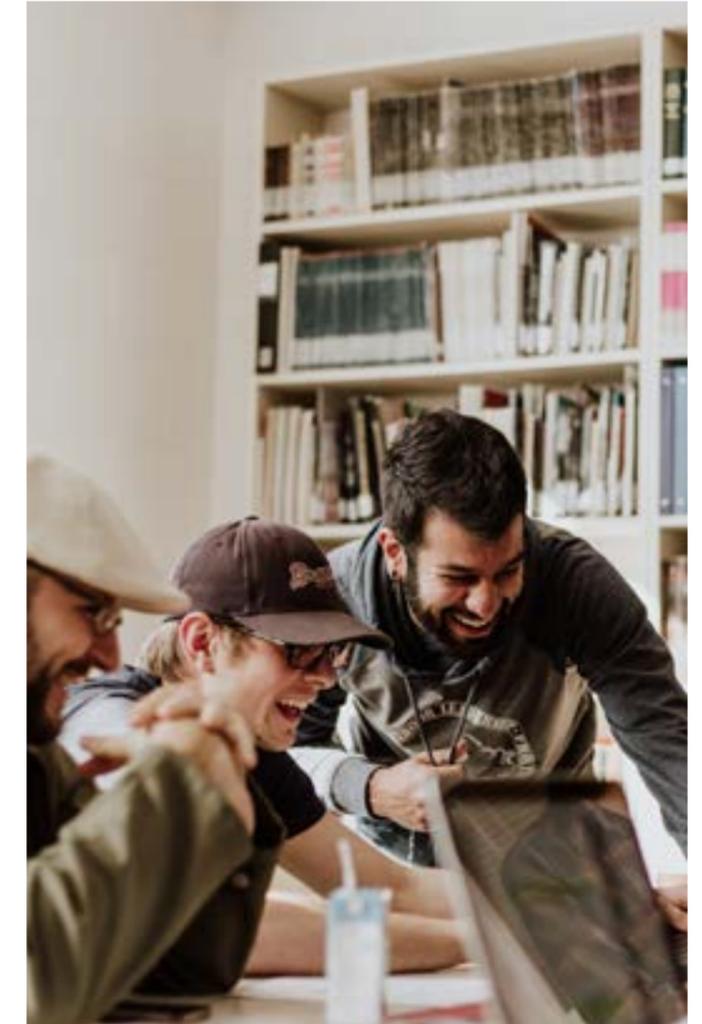
How to implement e-Assessments

Just like for any Edtech solutions implemented in an institution, organization and processing is crucial in the implementation of e-Exam. But more than all, it can face fierce resistance.

We analysed it and the results seem to always be the same. So here's a step-by-step list of actions you should consider in order to implement the best solution possible and make it work.

- Define your goals

- Ask questions

- Communicate with professors and students about your goal to implement e-Exams

- Once you choose your solution, process the implementation

- Integrate everyone in the process

- Test the solution on small groups, through pilots

- Get feedback and extend the solution little by little to a whole program and finally the whole institution e Exams

- Always get a maximum of feedback in order to adapt the solution to your students and professors needs

Communication is obviously the most important factor in the implementation of tech tools for Education, with a culture of data backed **rapid executions**. These two are the key to a more optimised and **adaptive learning**.

Rapid execution is the application of methods that accelerate experiments and changes in the learning content, especially thanks to comprehensive data about students' learning. This data can show professors how to act in a more adaptive way.

Adaptive learning is the adjustment of the learning content and learning environment given to the students in order to help them engage better and participate in the learning process.

Big data, a fuel for professors

It's been a while since Big Data made its way into the world of education. **Learning Analytics**, that is how it's called now, is changing the way teachers work and adapt their learning content to learners. So much so that today, it is the biggest trend in Edtech.

Learning Analytics solutions offer **plenty of opportunities**: measuring tools, predictive analytics, engagement improvement, programs development, problem identification in the learning process... and everything being cost effective.
These solutions help teachers better understand:

- the impact of assignments on students learning

- how students learn

- if there is anything that could be improved in the learning content from the assessments
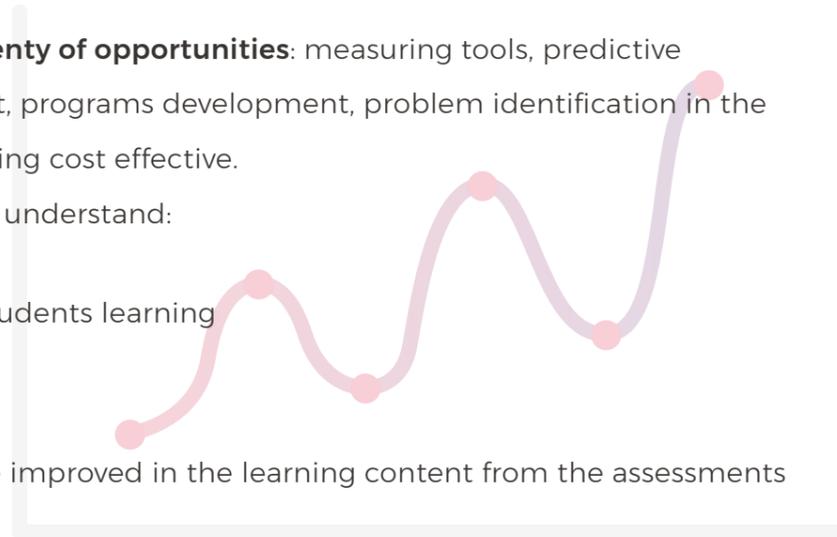
But the real miracle of it lies in its **adaptivity**. Using Learning Analytics not only gives professors a complete overlook over a LOT of details concerning their students' learning progress or issues, it provides precious information on **each of the learners**.

Learning Analytics is the application of data collection, analytics, measurement and reporting to Education with the goal of improving and optimizing learning and learning environment for students.

A teacher applying this kind of solution to his tests, assignments or assessments will evidently have a better understanding of his classes. For example, he could break record in:

- Spotting which student might fail if he's not assisted

- Understanding what is the progress pace of his class

- Understanding if the students got interested in the learning content

- Spotting which part of the learning content posed a problem to the class

- Understanding how much he should adapt learning to his students

Finally, Learning analytics isn't here to disrupt grading nor the way we assess students. It's more about **giving the tools to teachers** to integrate fully these two into the learning process without reforming the whole process, which is notably a reason why Learning analytics tools are so successful today.

Here's a list of effective Learning Analytics tools you might consider to improve your learning processes.

AI as teachers' assistant

Many assumptions have been made on the possible "passing of power" between teachers and AI, the latter becoming the next superheroes for learners as soon as 2027. This kind of assumptions are not viable nor will they happen anytime soon.
Nevertheless, as **Rose Luckin, professor of learner-centred design at University College London's Knowledge Lab**, affirmed, *"in ten years every teacher should and will have an AI assistant."*

AI assistants are any digital tool that automates tasks with poor added value to the learning process like grading (in the sense of grade marking), record keeping, or simple administrative tasks. It may seem dubious but teachers spend 20 hours per week on average doing these tasks that aren't related to improving the quality of learning for students.

Rose Luckin
Professor of learner-centred design at University College London's Knowledge Lab
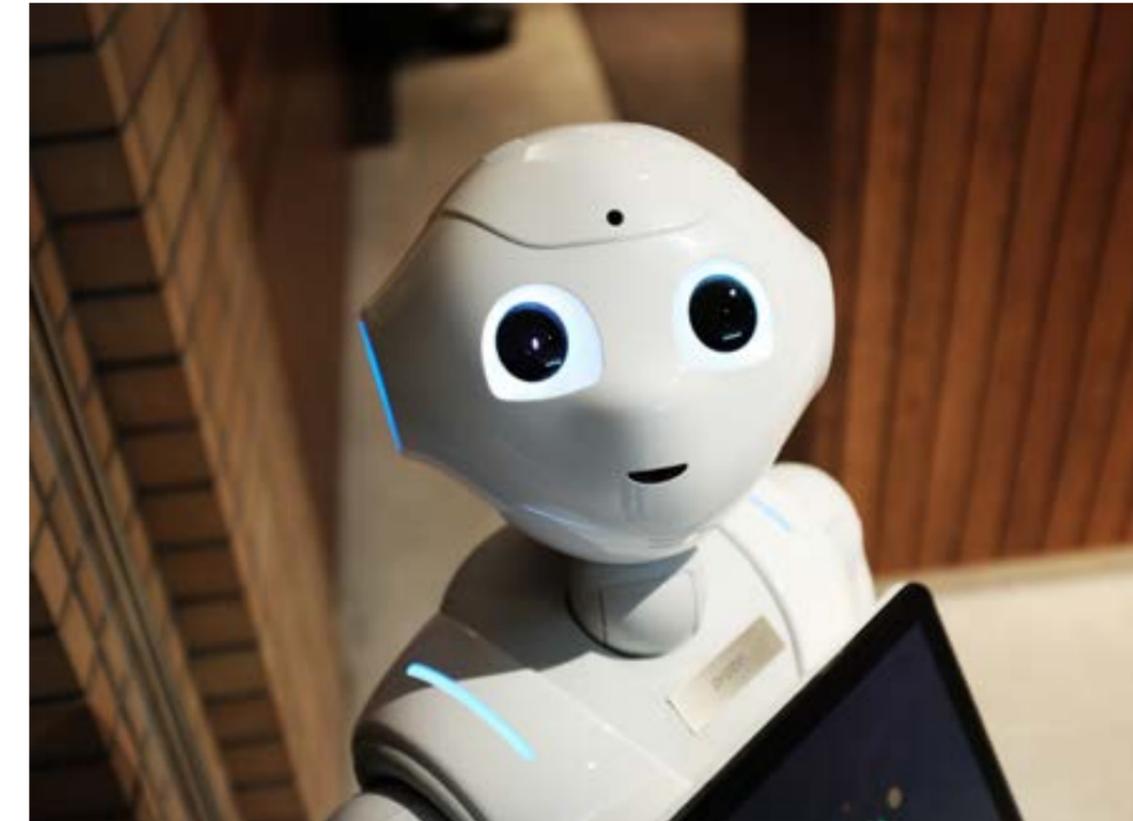
Saving +20 hours per week means re-assigning this time for research, test, and pedagogical innovation. Although fears of losing the "teacher attitude" might have been expressed, as Lisa Jarmin, an education blogger, wrote, *"AI assistants are going to transform the job in a positive and productive way by optimizing their workload greatly."*

This is a good news for assessments and grading. Simply because, as optimizing time means more time dedicated to learning, it means also more time dedicated to analyze students' progress and act accordingly. In the end, more time for analysis means more time to improve and adapt assessments and grading for learners.

A New Paradigm

Solving the problems of grading and assessing will take some time for sure. Schools, universities and companies aren't always ready to carry out the effort and transform deeply their educational programs nor their assessment processes.

Nevertheless, the idea that assessment and grading methods represent a deep problem today is an idea that is now generally accepted. A new paradigm is born. Following the rise of Edtech tools and new methods of pedagogy, Education as a whole is now being questioned.

Will it be no grades and no assessments? Will they just be reformed, reapproached? In the end, we're not sure, it will depend on the institution and the context. What is sure is that tools exist to optimize as much as possible professors' workload and help them rethink their grading/assessing methods.

Education is being rethought with one objective at the end of the adventure: adapt Education to learners. As much as possible.

TestWe's vision

At TestWe, we are engaged in the transformation of grading and assessing methods. We understood that today's Education wasn't adapted to all learners. In many, many sectors of Education, we saw anxiety pushing students to cheat.

After having done numerous researches, we found out that there was a loss of interest for grades as learning tools and a surge in the use of grades as a standardized way to categorize learners and to guide them to a most advantageous job.

Rather than being indicators of performance, grades and assessments should take their place at the center of the learning process. That is the reason why we built TestWe.

We have found a perfect angle to make TestWe a tool that combines the optimization of grading, assessing and AoL managing. In other words, we found a way to dynamize this revolution in Education.

What is this revolution in Education according to TestWe and what is our role in it?

Today is a time where teachers must become entrepreneurs of learning, must become innovators, must be creative and must find the best way to engage their students and help them develop their skills and knowledge in the most adapted way.

To make it happen teachers must have the time to focus on their students and on pedagogy. Our mission is thus to provide them with the best tools to help them doing just that.

That is why, if we position TestWe on the grading/assessment spectrum of solutions, it would be among the optimization tools.

We built and are constantly improving our solution so that it can greatly optimize professors' workload by simplifying and in some cases by automating tasks such as exam creation and exam grading.

We are also engaged in the development of our product as a precious tool for professors to analyze easily students' progress through their tests, to analyze their possible needs, all of it in order to help professors improve their learning content.

If you believe just like us that grading and assessing methods could be improved, that optimizing professors' workload is the best way to improve learning, contact us and let's chat!

You want to know how TestWe works and the opportunities it offers? Just ask for a demo!

testwe