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Beyond the Flipped Classroom: A Tool to Promote Autonomy, Cooperation, Differentiation and the Pleasure of Learning

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Abstract: The aim of our research is to find solutions for adapting university teaching to new generations of students and new professions. To achieve this, we have tried to change the posture and behavior of those involved in the learning situation by promoting other skills. There is a gap between the expectations and functioning of students and university teaching. At the same time, the business world needs employees who are obviously competent and proficient in technology, but who are also imaginative, flexible, able to communicate, learn on their own and work in groups. These skills are rarely developed as a goal at university. The flipped classroom has been one solution. Thanks to digital tools such as Moodle, for example, but the model behind them is still centered on teachers and classic learning scenarios: it makes course materials available without really involving them and encouraging them to cooperate. It's against this backdrop that we've conducted action research to explore the possibility of changing the way we learn (rather than teach) by changing the posture of both the classic student and the teacher. We hypothesized that a tool we developed would encourage autonomy, the possibility of progressing at one's own pace, collaboration and learning using all available resources (other students, course materials, those on the web and the teacher/facilitator). Experimentation with this tool was carried out with around thirty German and French firstyear students at the Université de Lorraine in Metz (France). The projected changes in the groups' learning situations were as follows: - use the flipped classroom approach but with a few traditional presentations by the teacher (materials having been put on a server) and lots of collective case solving, - engage students in their learning by inviting them to set themselves a primary objective from the outset, e.g. "I am committed to assimilating 90% of the course", and secondary objectives (like a to-do list) such as "create a new case study for Tuesday", - encourage students to take control of their learning (knowing at all times where they stand and how far they still have to go), - develop cooperation: the tool should encourage group work, the search for common solutions and the exchange of the best solutions with other groups. Those who have advanced much faster than the others, or who already have expertise in a subject, can become tutors for the others. A student can also present a case study he or she has developed, for example, or share materials found on the web or produced by the group, as well as evaluating the productions of others, - etc... A questionnaire and analysis of assessment results showed that the test group made considerable progress compared with a similar control group. These results confirmed our hypotheses. Obviously, this tool is only effective if the organization of teaching is adapted and if teachers are willing to change the way they work.

Keywords: pedagogy, cooperation, university, learning environment

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