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DEVELOPING A LEARNING ANALYTICS TOOL

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ABSTRACT
This poster describes how learning analytics and collective intelligence can be combined in order to develop a tool for providing support and feedback to learners and teachers regarding students’ self-initiated study activities.

INTRODUCTION
In 2013 the Danish university college sector began the implementation of the Study Activity Model (SAM). SAM should “provide for all programmes a single academic tool which can shape the study expectations of the students in relation to study intensity” (Denmark, 2014). The model is divided into four categories as shown in figure 1. Based on previous work (fig. 2) (Ringtved et al., 2017) we are now designing a tool that support students in reflecting on their study related learning activities. And also help teachers becoming aware of study related learning activities and making activities a part of other categories in SAM.

ANALYSIS
In the following we will use LAM to analyze our current ideas for the tool. We will leave out components that are not relevant at this point.

The DDR process is divided into six steps as shown in fig. 3. Currently our development process is somewhere between step b and c. We have the objectives in place after researching the overall problem. Now we need to get a clear idea about the detailed requirements and the design for the tool. One method we can use in this process is the Learning Analytics Model (LAM).

METHODOLOGY
The method for our development process is Design & Development Research (DDR). DDR describes the research process for developing information technology products or artifacts (Ellis and Levy, 2010).

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FIGURE 1

The four categories in the Study Activity Model (Denmark, 2014)

FIGURE 2

Category 1: Participation of students and initiatives by a learner.
Category 2: Participation of students and initiatives by lectures.
Category 3: Participation of students and initiatives by the teacher.
Category 4: Participation of students and initiatives by others.

FIGURE 3

Framework for enhanced use of students’ self-initiated study activities.

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FIGURE 4

Model for self-initiated, self-regulated and self-assessed activities

FIGURE 5

Learning Analytics Model (Siemens, 2013)

REFERENCES