

simSchool - a Virtual Practicum

This poster session will introduce the audience to a new web-based game, simSchool, designed to be a virtual practicum to help preservice students. Based on extensive games and learning theory research, simSchool harnesses the power of learning through games and simulations to address the challenges faced by teachers such as: how to assess individual learning characteristics; how to design tasks to fit student learning needs; how to interact with students in a way that improves performance; how to individualize instruction to ensure that all students, whether low performing, average or high performing, are engaged and learning.

Current teacher preparation programs do their best to prepare students through methods courses, which often include a mixture of lecture, hands-on activities, and assignments to develop lesson plans. These courses predominately deal with the visible parts of knowledge, the “know-what” of teaching mathematics, language arts, science or history. But “know what” knowledge is disconnected from the tacit knowledge, the “know how,” required when teaching diverse, second language, special education, and gifted students. Know-how, even more than know-what, is essential to becoming a professional (Orlikowski, 2002).

With computer and network-based expert feedback, the simSchool simulation can be seen as a form of “simulated apprenticeship.” When playing the game, the tacit processes, mental models, and skills of an expert that are needed to succeed in teaching are embedded in the structure, the rules, the choices, and the environment of the game. As in cognitive apprenticeship (Collins, 1997; Lave & Wenger, 1991), the simulation “coaches” a player through feedback, hints, and scaffolding. The complexity of the game increases as a player advances in his/her ability, pushing the player to new levels of challenge just as in apprenticeship learning.

simSchool is a "first person" game where the player, a teacher, is responsible for the success of a classroom of students. Players can choose to work with an individual student, a small group or a class of 18 students. The player selects a teaching environment based on particular student demographics —urban, suburban or rural. When players enter the simulated classroom, they can view the profiles of their students to better understand their academic abilities, emotional characteristics and learning style. The player then begins the class with a climate setting exchange, e.g., “Good morning class.” and selects a task that best fits the profiles of their students e.g., “Class we will discuss yesterday’s homework.”. A simStudent responds based on their personal characteristics or learning preferences with a statement such as “ I don’t understand this task” or changes her posture e.g., slumps in her seat. By interpreting signs of performance and behavior, (students posture, conversational exchanges) the player makes decisions about how to help students on a given learning task. The

player's increased understanding of the factors that improve learning leads to better decisions about matching tasks and interactions with their virtual students, to better game-play, and to higher levels of success for more virtual students. Aspiring teachers gain skill in interpreting student characteristics—both behavioral and academic—to better guide their expectations about student performance.

This poster session will provide a tour of simSchool giving the audience a chance to experience what a player experiences, the decisions they have to make, and see the resulting impact on their simStudents' learning. Audience members will be challenged to think about how simSchool might fit within a preservice course and their own ideas and beliefs related to using games and simulations in education.

References:

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