

Katie Goode, Fourth Grade Teacher

Search4STEM: A User Case

Katie Goode is a fourth grade teacher with a lively class of 22 students. Her students are an American mixture: several ethnic and demographic groups, English language learners, identified special needs and both boys and girls.

She is an avid instructional computer user because the university program she attended prepared her to use technology for teaching, learning and productivity. There are several technology stations in her classroom for group use and as part of a program which enables every child to have a netbook, all her students have one to one access.

She checks the digital journals every day to keep up with educational news. Lately she has been intrigued by all the articles about STEM. Her principal sent everyone in the school a report written last year from a local college which advises: *“There is growing consensus among educators that quality STEM education must begin earlier, in grades PreK-6, both to ensure foundation knowledge and skills and to foster long-term interest and higher-level study in these subject areas in the later grades.... At the same time, educators argue that quality early STEM instruction can boost overall learning, by tapping into children’s natural curiosity and interest in experimentation and engineering. Activating these learning impulses through integrated curricula and guided play can support children’s cognitive and social skill development as well as foster their interest in multiple academic subjects.”*¹

She thinks she knows where to find possible programs for her students. She convinces the other teachers in the fourth grade to come together after school in her room to look at a new STEM portal, called Search4STEM, she has read about. MassCUE has just made available a way to find all varieties of STEM information, called Search4STEM.

The portal opens with a welcoming screen describing how to use the system. Next is a query requesting personal/professional information about Katie which will inform and tailor any search in the future. It asks for a description of her role, her academic background and why she is interested in STEM.

Next is a question about what she is exploring at this time. There are many elements she can check off: Grade levels for the intervention, STEM subject(s), Description of elements (for example, whether the program is hands-on, project based, teacher centered, only web based, hybrid, etc.), Contact Information, Evaluation Information, Cost and testimony from previous users. Videos of STEM professionals describing their careers and preparation are also available.

The group checks off the criteria they developed and up come six programs which meet those conditions. The teachers eliminate two by discussing assets and liabilities for their students and school, decide who will contact the people listed to investigate further the questions they have identified about the other four. The group adjourns, planning to pursue the next collective step when they meet the following week. They realize they will need the principal’s approval to start the STEM program but feel that they will have all the information necessary for her to approve the project.

¹ Foundation for the Future: Strengthening STEM Education in the E
A Plan for Increasing the Number of Skilled PreK-6 STEM Educators in the Greater Boston
Region, A Strategic Report Prepared by: The Wheelock College Aspire Institute, May 5, 2010