An Emerging Educational Technologist Role in Changing Organizational Structures

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Abstract: This paper explores how schools design and position roles to facilitate teacher collaborative learning of educational technologies, and the possible necessary school-level conditions for these roles to support teachers for successful pedagogical impact. It features two embedded case studies of emergent educational technologist roles’ in private international schools in Singapore.

Keywords: teacher education, technology, organizational learning, technologists, coaches

Introduction
Teachers need personal support to change their teaching and learning practices through technology. Formal and informal roles such as “champions” (Hargreaves, 2003), “coaches” (Fishman and Davis, 2006), and “techno-mentors” (Ito, 2010) may facilitate collaborative teacher learning of educational technologies. Literature on teacher collaborative learning roles have generally examined these roles at the level of their working with teachers, without examining other levels of organizational learning and design that makes these coach-type roles successful in meeting teachers and changing their practices. The purpose of this paper is to contribute to theory on the practice to design schools for multi-level system learning, which includes the introduction of educational technologist roles that may facilitate teacher collaborative learning at one level and changes at other school levels. The paper addresses the questions, “How is an emergent educational technologist role positioned to facilitate teacher collaborative learning in the set of conditions that broadly constitute technology integration in a school?” And, “What do an emergent educational technologist role’s feedback interactions indicate about the necessary school-level conditions for the role to support teachers in pedagogic innovation through technology?”

Methods
A school is a designed social organization. It consists of structures, which refer to, “The designed organization including formally designated positions, chains of command, departments, programs, and formal organizational routines” (Spillane et al., 2011, p. 588). For instance, structures can be organizational units such as grade-levels, subject areas and administrative departments, all of which conceptually frame and focus interactions or practices among staff. Ultimately, the designs of structures and interactions constitute the variable conditions of a school for learning. This study features two embedded case studies of emergent educational technologist roles, the Digital Literacy Coach (DLC) in School F and the Educational Technology Coach (Edtech Coach) in School G. Data for each case were collected from interviews with selected technologists and other school stakeholders, observations of technologist interactions, school documents and artifacts from technologist interactions.

Analysis
Data were analyzed to identify school-level conditions, in terms of the types of structures and interactions for which these roles were designed, and feedback interactions, in terms of participants, formality, technological focus, and outcomes. For each case, I present each role’s feedback interactions through selected technological foci.

Findings
The designed conditions and feedback interactions in School F for a Digital Literacy Coach
School F is one of the largest and most prestigious private international schools in Singapore. From the 2011-2012 academic year, School F followed its technology integration strategic plans. The school adopted Apple hardware and software. School F designed a new organizational structure with a new role, the DLC. Computer subject teachers would become DLCs. Each DLC would be assigned to a school section and be responsible for all the grade-levels in the section. The creation of the DLC role from the computer subject teacher role coincided with the termination of computer subject lessons in the junior section. At the same time, School F
would design new DLC interactions for digital literacy learning. The representative DLC in this study Sam, unlike other DLCs in the school, negotiated his DLC role and wrote his own job description. He designed his role to be a member of the curriculum team in the primary section. He was assigned to the primary section, which comprises grades two, three, four and five.

Sam began facilitating teacher collaborative learning of video editing through iMovie because of a technology skills matrix, which he used at curriculum team meetings at each grade-level to map technology to selected curriculum units. Sam had designed interactions for him and stakeholders at a grade-level to learn about technology. One designed interaction was Team Time, which involves Sam meeting all teachers in a grade-level during teachers’ non-contact time twice weekly. Another designed interaction was Techsperts, which involves Sam meeting two student representatives from each class in each grade-level weekly to train the students to teach their teachers and students about the technological innovation during lesson time. Sam was able to introduce iMovie into curriculum units in all grade-levels, to revise the curriculum units into which iMovie was introduced for the following year, and to replicate his designed interactions in another school section for the following year.

The designed conditions and feedback interactions in School G for an Educational Technology Coach

School G is also one of the largest and most prestigious private international schools in Singapore. From the 2012–2013 academic year, School G followed its technology integration strategic plans. The school adopted Apple hardware and software, as well. School G designed a new organizational structure with two new roles, the Educational Technology Coach and the Educational Technology Coordinator. Computer subject teachers would become DLCs. These roles would be assigned to a grade-level. These roles taught computer subject lessons but teaching load was reduced greatly. School F designed interactions so all Coaches and Coordinators would meet weekly and all Coaches and Coordinators in a school section would meet weekly. The representative Edtech Coach in this study, Steve, was assigned to grade two in the primary section.

Steve met with his primary section Coach and Coordinator colleagues to determine a professional development and performance appraisal goal. The team decided to introduce blogging into grade-two. Steve did not have any designed interactions with grade-two teachers. He created blogs for all the teachers but this produced conflict. Blogging became explicitly voluntary for grade two teachers. Three out of thirteen teachers enlisted themselves and their classes. Steve’s principals gave Steve mixed messages about his interactions with teachers. Steve used his discretionary time to resolve many administrative and security dimensions of blogging. Ultimately, students in three, grade two classes blogged during lessons. Steve posted an exemplary student blog post on his public blog. Steve later said that these teachers benefited greatly from the blogs because they could view student blogs to more easily write up student reports for parents.

Conclusions and implications

Both schools enacted strategic plans for technology integration, but the seemingly minor design differences between in each school’s plans influence greatly the effectiveness of each school’s educational technologist role. The technologist that facilitated teacher collaborative learning of video editing through iMovie was arguably more successful in facilitating systematic teacher collaborative learning because of the scope of his deployment, his association with his school section’s curriculum unit, the regularity of his interactions with teachers and his opportunity to design new interactions.

References


