# Better understanding the roles of teaching staff and students in a context of integration of IT into teaching-learning

By Christian Barrette, researcher for the Association pour la recherche au collégial (<mark>ch07bar@videotron.ca</mark>)

As part of his research work, Christian Barrette assigns each student a role that varies according to the teacher's instructional approach. The following descriptions of these different roles will help the reader use the scenario analysis grid for an activity.

| THE TEACHER TARGETS THE TRANSMISSION OF CONTENT | THE TEACHER TARGETS CONSCIOUS PROFICIENCY IN COGNITIVE SKILLS | THE TEACHER TARGETS THE CO-CONSTRUCTION OF KNOWLEDGE |
|---|---|---|
| Teacher: instructor<br>Student: reactive | Teacher: facilitator<br>Student: proactive | Teacher: moderator<br>Student: interactive |

| Student's roles | |
|---|---|
| **Reactive role** | "In this mode, the focus is on INFORMATION to be extracted from the environment (culture, knowledge, fact to find out) and on the person or thing that clearly has the knowledge (the teacher or other sources of knowledge, such as storage media, databases, and encyclopedias). Some prototypical tools used in this mode are books, encyclopedias, virtual syllabi, videos, tutorials, drill and practice software, passive videoconferencing, websites (usually). Some of the related teaching methods are courses, presentations, lectures and drill and practice sessions. Note that when these tools are entrenched in other, more active teaching methods (in the PBL, books are also needed), the teaching device can be migrated to more elaborate modes […]. One could also say that in this mode, it is the person or thing holding the knowledge (teachers or drill and practice software) that asks the questions; learners respond to prompts within their environment. It is often a gateway to other, more active teaching approaches: the first step is to seek resources to document the problem or task." [translation] (Lebrun, Marcel. *Courants pédagogiques et technologies de l'éducation*. [http://www.ipm.ucl.ac.be/articlesetsupportsIPM/4.Courants.pdf] (Accessed January 29, 2009). |

| | |
|---|---|
| **Proactive role** | "In this mode, the focus is on the SKILLS, very often cognitive (and high-level: analysis, synthesis, evaluation, critical thinking) that the LEARNER will need to use in the environment, in the teaching device established by the teacher or proposed by the software tool. The knowledge is still present, but in a more implicit, latent way: it is up to the learner to reconstruct it, to rediscover it through simulation (analysis) and modeling (synthesis), by solving problems and creating projects. Some prototypical tools are programming software, office automation software (their particular uses), simulation and modeling software, a number of CD-ROMs and websites.  Some of the related teaching methods are procedures for solving problems and developing projects as well as real or virtual labs. In this mode, it is generally the learners, the users, who ask the surrounding system questions ('What if...?'), ask themselves questions, and formulate hypotheses. When we speak of interaction in this mode, we are often referring to functional interactivity (human-machine interface, ergonomics, buttons, menus, etc.)." [translation] (Lebrun, Marcel. *Courants pédagogiques et technologies de l'éducation*. [http://www.ipm.ucl.ac.be/articlesetsupportsIPM/4.Courants.pdf] (Accessed January 29, 2009). |
| **Interactive role** | "In this mode, the emphasis is placed on relationship SKILLS (teamwork, communication, etc.). This mode can be seen as the two modes described above used in conjunction with various forms of relational interactivity: (1) immersion in an environment (role-play games, interaction with virtual partners), (2) interaction between remote partners (email, news, lists and their applications in teaching), or (3) interaction with local partners (chatting, asking each other questions, forming hypotheses, finding solutions involving a case study, a technology tool, a medium). There is a great deal of difference between the more individual uses of the teaching device in (1) and its applications in cooperative learning in (2) and (3). As with cooperative learning, the importance of the task and instruments used to help carry it out are important. The prototypical tools are communication technologies (uses emails, news, etc.), but also certain types of software and CD-ROMs (role-play games, etc.) and certain uses of active videoconferencing. Some of the related teaching methods are seminars and case studies." [translation] (Lebrun, Marcel. *Courants pédagogiques et technologies de l'éducation*. [http://www.ipm.ucl.ac.be/articlesetsupportsIPM/4.Courants.pdf] (Accessed January 29, 2009). |

| Role of the teacher | |
|---|---|
| **Role of instructor** | "Whenever teachers' representations, actions or intentions are at the heart of the action, thus making them the focal point of the teaching practice, this becomes the central role. By exercising their role as instructors, teachers help students establish meaningful representations in terms of knowledge and expertise, thereby providing a model to be followed. Teaching practices associated with this role prompt the teacher to organize the learning objects to ensure that students acquire them. Teachers are concerned with selecting and organizing these learning focuses, with the methods they will use to convey them and with the teaching interventions they will establish. According to Jonnaert and Vander Borght (1999), in their role as instructors, teachers undertake a reflective process about the knowledge taught, the conditions for acquiring knowledge`, and their teaching interventions all at once." [translation] (Raymond, Danielle. *Qu'est-ce qu'apprendre et qu'est-ce qu'enseigner? Un tandem en piste!*, Association québécoise de pédagogie collégiale, 2006: 101-104). |
| **Role of facilitator** | "Whenever the students' representation, action or motivation is at the heart of the action, teachers exercise their role as facilitators. Through this role, which Tardif (1992) calls the role of intermediary, the teacher helps students make the transition from dependence to guided practice, followed by independence and autonomy in exercising the skill. In the role of coach, the teacher constantly places students in problem situations, confronting them with tasks that are meaningful, real, complex, complete and comprehensive. According to Archambault (1999), when teachers exercise this role, 'they can help students build much stronger self-management skills, since the teacher works together with them to focus specifically on their relationships with and approaches to the learning focus. In addition, the facilitator, particularly in the case of students experiencing temporary or recurring difficulties, is very helpful in identifying areas that have been successfully developed in students and areas that are underdeveloped.' (Archambault, Guy. *Les Pratiques professionnelles enseignantes du niveau collégial*. Regroupement des collèges PERFORMA,1999: 280). It is by way of his constant scrutiny throughout the process leading to the student's assimilation of the learning content that the teacher shapes interaction between him and the student, and exercises the role of facilitator." [translation] (Raymond, Danielle. *Qu'est-ce qu'apprendre et qu'est-ce qu'enseigner? Un tandem en piste!*, Association québécoise de pédagogie collégiale, 2006: 101-104). |

| | |
|---|---|
| **Role of moderator** | "When the focus of the teaching practice is management of the common objective and the collective action, the teacher acts as moderator. 'As a moderator, the teacher helps manage interactions among students and ensures that they interact with their psychosocial environment. These roles involve the three aspects of collective action to be co-managed in class: the objectives of the learning activities suggested to the class, the strategies selected to achieve them and the role assigned to students in the class. By carrying out these roles, the teacher goes a long way in helping students develop their ability to learn to live together'. (Archambault, Guy. *Les Pratiques professionnelles enseignantes du niveau collégial*. Regroupement des collèges PERFORMA (1999): 44)." [translation] (Raymond, Danielle. *Qu'est-ce qu'apprendre et qu'est-ce qu'enseigner? Un tandem en piste!*, Association québécoise de pédagogie collégiale, 2006: 101-104). |