

LDtech Project – Phase 2 – Step 3: Learning Disabilities & Technologies Coding Manual

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In the spring of 2011, 234 students from two French language and one English language college completed an online questionnaire dealing with information and communication technologies (ICT). The purpose of the study was to evaluate ICT related needs and concerns of college students with and without learning disabilities. There were five open-ended questions on this survey; 213 students answered at least one of these. This coding manual deals with their responses to the open-ended questions.

List of Open-Ended Questions Coded

- Q19. List three examples where your teacher used computer technologies effectively (i.e., in a way that worked well for you).
- Q20. List three examples where your teacher used computer technologies ineffectively (i.e., in a way that didn't work well for you).
- Q21. List three obstacles (things that make it harder) to using computer technologies for school work.
- Q22. List three facilitators (things that make it easier) to using computer technologies for school work.
- Q23. If computer technologies could do anything to help you succeed more easily in Cegep, what would they do?

Methodology

The researchers reviewed about 20 responses each for each of the five open-ended questions. Following this review, a first version of a manual was developed. The coding manual underwent subsequently underwent revisions. The final version consists of 29 codes (see pages 2 and 3).

Since the questions were so diverse and rich in information, it was agreed that each question would be assigned a set of codes of its own. This resulted in 28 active codes and one (Code 26) which was used for all questions to indicate that the response did not fit any of the other codes, that no response was provided, or where the response stated “none” or “nothing to say.”

When the coding was well underway, we realize that 2 questions: (Question 21 code 9 and Question 22 code 14) had too many dissimilar responses. To avoid re-numbering all the codes, Question 21 code 9 was re-categorized as 9a, 9b, 9c and Question 22 code 14 was re-categorized as 14a and 14b.

Coding was conducted as follows. Two researchers each coded four of the five questions individually. They then reviewed the codes and, in case of disagreement, arrived at the code by consensus. The fifth question (Question 23) was coded jointly.

Codes, Categories and Examples For the Five Questions

Code	CATEGORIES	Examples
Q19	List three examples where your teacher used computer technologies effectively (i.e., in a way that worked well for you).	
1	Learning enhancement / practice	Graphics, images, films and movies, YouTube clips, DVDs, websites, online discussion boards, online class notes, online practice quizzes, internet resources, research, exams, teaching
2	Course presentation	PowerPoint, overhead projectors, smart boards, excel, other software programs
3	Ability of access (submission and retrieval)	Course management websites (Lea, moodle etc.), ability to exchange email, ability to submit assignments electronically to professors, grades, electronic notes, library research
Q20	List three examples where your teacher used computer technologies ineffectively (i.e., in a way that didn't work well for you).	
4	Software/technology-related activities	Listing of software, inappropriate activities
5	Professors' limited knowledge of technology	Delays in using technology, unable to explain technology, wrong use of technology, lack of instructions, communications
6	Technology-related issues	Old equipment, incompatibility of software between school and home, inappropriate format, technical difficulties
Q21	List three obstacles (things that make it harder) to using computer technologies for school work.	
7	Any issues by teachers with technology	Unable to bring laptops and other technologies to class, unwillingness to use technology
8	Any issues by students	Lack of student training on computer technologies
9a	Inadequate resources/infrastructure	Not enough wall plugs for laptops, not enough computers and computer labs, out of date software, old/slow computers, unavailability of WIFI, lack of reliable internet access, slow/non-functioning technologies, lack of compatibility ,
9b	Fast-changing technology	Fast changing technology,
9c	Non-compatibility between school and home	Different version of program at home and school (Microsoft 2003/2007, either at school or home)
10	Online distractions	Facebook, YouTube and other social media websites
11	Cost/accessibility of technology	Accessible function of programs and technology, negative impact on health, no computers at home , lacking software at home

Q22	List three facilitators (things that make it easier) to using computer technologies for school work	
12	Student training and support	Training, document help files, availability of technical support and assistance, etc
13	Adequate resources/infrastructure	Having sufficient number of computers on campus, space to use computers on campus, availability of outlets, extended computer lab hours
14a	Access to correction	Access to antidote, to grammar and spelling correctors, editing, etc.
14b	Fast and easy access	Sharing info, switching language, easy access, saving time
15	Up to date/reliable technology	Computers that work as they're expected (including printers, etc), up to date and appropriate software
16	Positive professor attitudes toward technology	Permission to use laptops in class, willingness to use computer technologies during lectures, professors showing how computer technologies can be used for particular tasks,
Q23	If computer technologies could do anything to help you succeed more easily in Cegep, what would they do?	
17	Access to virtual classrooms	Allow students to listen to missed lectures, provide 24 hour access to professor help, etc
18	Generalized access to class notes	Record class lectures (audio), transcribe class lectures instantly, transcribe what I dictate.
19	Generalized use by professors	Compile course summaries for all courses (including cheat sheets), offer additional relevant material for courses, do/help with my research, etc. updated knowledge of technology by teachers.
20	Generalized online work	Homework submission and exams,
21	Automatic editing and correction	Writing, polish final product, assist with work completion, correct errors in writing, grammar checking (i.e. detailed explanation of what the problem is, why it is a problem and how to avoid the problem)
22	Generalized access to audio-visual aids	Use of videos, films, utube, etc,
23	Organization-management	Add focus, prevent me from surfing the web during class time, disable/block MSN and facebook, allow homework window to appear whenever visiting social media websites, etc.
24	Up to date/reliable technology	Computers available everywhere, computers that work as they're expected (including printers, etc.), up to date software
25	Portability/usability/flexibility	Ability to easily share and transport files, allow collaboration, allow working in multiple programs without having to switch between them, lower cost
26	Other	Anything else, "none", "nothing to say"