Center for
Higher Education
Policy Studies

Toegepaste Onderwijskunde

Models of Technology and Change

In Higher Education

An international comparative survey on the current and future use of ICT in Higher Education

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Report

December 2002

6 Instructors: Gradually doing more, but with no reward

This chapter is concerned with the questions regarding the instructors' role in the use of ICT, how this relates to their views on teaching and learning and on their actual workload and job satisfaction. The "stretching the mould" theme is also seen in these responses.

Overall, the instructor is still there, but doing more with technology with no particular reward. Instructors are less concerned/interested in/hopeful about technology than those not on the "front line" (the decision makers and support staff). Instructors are not particularly concerned about ICT, and not very much changing their ways of teaching even though they use ICT in different ways.

6.1 Available experience and support

Instructors were asked how much experience they have in using ICT in their teaching. They indicated that on average this is somewhat occasional (M=3.60, SD=1.10). Instructors also said that the use of ICT in their teaching had led to some change in their teaching (M=3.31, SD=1.08)[3].

Instructors, the ones actually using ICT in their teaching and learning, consistently view ICT-related aspects less positively than those not on the "front line" (decision makers and support staff. This can be seen in perceptions of how much support is available. The overall results for types of support offered to instructors are displayed in table 22. However, when analysed separately for each of the three sets of respondents, instructors have a significantly less positive view than the other two groups. The level of support for instructors with respect to the use of ICT for teaching purposes in the institutions is valued as average (M= 3.03, SD=1.06), where instructors are a little more critical (M=2.92, SD=1.08) than managers and support staff (M=3.1) about this level of support. These differences in perception between the instructors and the others are statistically significant ($p<.05$).

Table 22: Extent to which various types of support are available for instructors

Available types of support (N=503)	**Mean (SD)**
An ICT technical unit or help desk	3.64 (1.13)
Materials made available via the Web	3.54 (1.01)
Short courses or workshops	3.35 (1.17)
Handbooks for self-study, or other printed reference material supplied by the institution	3.17 (1.11)
A pedagogical-support unit	3.05 (1.40)
Special projects to stimulate ICT use	3.07 (1.23)

1=not at all, 3=some, 5=major feature

[3] As in the previous chapters, all results are based on responses to a five-point scale, with 1 being least positive and 5 most positive.

6.2 Efficiency

All response groups were asked to indicate how they perceive the impact of ICT use on the efficiency of teaching activities in their institution. In addition, instructors were asked to what extent ICT has increased their personal efficiency in the performance of various tasks.

The overall impression of the respondents about the impact of ICT on the efficiency of teaching activities is positive (M=3.63, SD=.85). However, for the support staff (M=3.73) and decision-makers (M=3.71) the impact is valued as significantly more positive compared than the opinions of the instructors (M=3.54, t=-2.20).

As shown in table 23, instructors perceive that they have become more efficient in all tasks, especially in finding resources, via their use of ICT.

Table 23: Extent to which instructors have become more efficient by using ICT (instructors' perceptions)

Tasks (N=326-331)	**Mean (SD)**
Finding resources to use in my courses	4.16 (0.85)
Managing administrative data about my students	3.79 (0.96)
Doing routine tasks relating to my teaching	3.75 (0.96)
Doing tasks relating to planning and managing my agenda in general	3.57 (0.96)
Giving feedback	3.50 (0.96)

1= much less efficient, 3=neutral, 5=much more efficient

6.3 Satisfaction and work load

Respondents indicate that the level of satisfaction among personnel in their institution with respect to their working conditions related to the use of ICT is slightly positive (M=3.23, SD=.95, N=656). There are no significant differences between actors in this perception. Respondents also indicate that the impact of ICT on general working practices in their institutions over the last two years is rather positive (M=3.73, SD=.77, N=654). All actors value the impact at a positive level and there are no significant differences between actors in this perception.

Instructors were asked to indicate how they feel about the amount of time they need to perform specific (ICT-related) duties in their current situation and in the near future. Table 24 shows their responses for both the current and the expected future situation. It seems that instructors are more or less neutral about most issues. However, feelings of annoyance are still predicted in terms of being bothered by technical problems, even in 2005. Again, the perception is of a generally non-complaining level of feeling.

Table 24: Feelings about the amount of time to perform typical instructor's duties

Duties	**Current**		**2005**	
	N	Mean	N	Mean
Dealing with e-mail	326	3.56 (1.25)	301	3.42 (1.35)
Learning to use new technology	324	3.21 (1.07)	300	3.30 (1.06)
Using a course-management system	295	3.02 (0.90)	292	3.33 (0.97)
Responding to unexpected interruptions	307	2.73 (0.99)		
Solving technical problems	323	2.65 (1.14)	299	2.97 (1.11)

Note. Future feeling about 'responding to unexpected interrupts' was not asked.
1=I am very annoyed by the time needed, 3= Neutral (or not applicable), 5=I am very satisfied about the time needed.

6.4 Staffing policy

Staffing policy in an institution can play an import role when introducing and using ICT in education. When instructors know that using ICT counts towards promotion and tenure or that using ICT is an integral part of regular staff assessment then these will be strong incentives for them to use ICT or to use ICT for more than complementary support for traditional core practices. External quality assurance exercises can also force the use of ICT in education. Management can influence the use of ICT in education by using ICT competencies as criteria for selection and recruitment of new staff, by forcing professionalisation in ICT competencies, by financial incentives, and by declaring ICT use in education mandatory. In table 25 an overview is given of the responses of the various actors about the presence of such policy incentives.

Table 25: The role of ICT in staffing policy, compared by actors' views

Role of ICT use in staffing policy	**Overall (N = 632-659)**	**Decision makers (N = 174-183)**	**Instructors (N=324-328)**	**Support staff (N=141-147)**
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
ICT competencies are systematic criteria for selection and recruitment of new staff	2.60 (1.16)	2.85 (1.12)	2.50 (1.19)	2.51 (1.11)
ICT use in education is part of regular external quality assurance exercises	2.23 (1.14)	2.32 (1.15)	2.17 (1.16)	2.26 (1.08)
ICT use in education is an integral part of regular staff assessments	2.04 (1.11)	2.06 (1.06)	2.02 (1.17)	2.05 (1.05)
Professionalisation of staff in ICT competencies is mandatory	1.94 (1.13)	2.02 (1.13)	1.86 (1.12)	2.01 (1.14)
ICT use in education counts towards promotion and tenure	1.93 (1.08)	2.00 (1.06)	1.84 (1.06)	2.06 (1.14)
Financial incentives to individual staff are provided for development of ICT use in education	1.91 (1.13)	2.14 (1.21)	1.73 (1.08)	2.04 (1.08)
ICT use in education is mandatory	1.85 (1.18)	1.96 (1.26)	1.77 (1.16)	1.89 (1.11)

1 = Not at all, 2 = a little, 3= some, 4= much, 5= very much

In general it shows that ICT use plays only a modest role in institutions' staffing policy (M<=2.6) and is often only valued as having little to no (M<=1.94) role. This result shows that using ICT in education is not a major issue in staffing policy in most institutions and consequently that the necessary incentives and reward for staff are lacking.

It should also be noted that to all questions except the one on the effect on promotion and tenure, decision-makers are significantly more positive than support staff and instructors in terms of perception of policy incentives for ICT use. To all questions the instructors are significantly more negative than decision-makers and support staff.

Thus, the instructor is also "stretching the mould" with ICT use as part of daily practices. While there are no serious concerns about this, and a generally positive feeling about ICT's effect on personal work conditions and efficiency, there also are little or no systematic rewards to move instructors to do more than the gradual "stretching". Also, instructors--the ones on the front line of actual ICT use--are less impressed about it than those not on the front line. Consistently, instructors have significantly lower perceptions than the decision-makers and support staff in their institutions as to the support and incentives for ICT use. This will be further shown in Chapter 8. Next, however, a comment about country comparisons on these three main themes of the results will be given.