

The Success is based on a lot of Work. Attitudes of Distance Teachers

Ásrún Matthíasdóttir

Abstract: *This article describes a survey that was conducted at Reykjavík University into the attitudes of distance teachers' towards distance learning. The 21 distance teachers that participated claimed they had good preparation for using computers in distance teaching, although half of them wanted more training in distance teaching methods. They think distance education is a realistic alternative in Icelandic education and are satisfied with their online courses although 24% are insecure about their ability to teach online. They can master the main options of the learning management systems (LMS) and want to be active in their teaching, but they are not using all the online options available for them. The main conclusion is that we need to train the distance teachers in using ICT in teaching and online pedagogic; they have the technological skills needed.*

Key words: *Distance education, Distance teaching, e-learning, Teachers' attitudes, Information and Communication Technologies (ICT), Higher education.*

INTRODUCTION

Today most universities offer distance programs using a variety of on-line methods and learning management systems (LMS) are often used for distribution of material and communication. It is important for distance teachers to be aware of the technological development in recent years and how the technology can be used to build up a supportive learning environment that encourages students' learning, they must be aware of what they can use and how they can use it. Beliefs and attitudes are important in this context and research has shown that teachers' attitudes toward computers influence their computer use [1, 2], although Sadik [3] argues that more research is needed in order to improve our understanding of the relationship between attitudes towards computers and their use and how it influences computer use in schools.

Distance education today is built on a systematic and intensive use of technology that does not only call for good computer skills and knowledge of how the technology can service the distance teaching goals, but also positive attitudes and interest in using the technology. Li [4] came to the conclusion from a research of 15 secondary mathematics and science teachers and 450 secondary students, that the students' and the teachers' attitudes were "almost always polarized", where the students were more positive than the teachers and wanted more use of technology.

The importance of using multiple tools in distance education has often been confirmed by research, especially the use of synchronous and asynchronous technology [5]. The distance teachers' role is in a way the same as other teachers', but in stead of face-to-face communication, the distance teachers use tools like LMS to distribute learning material and assignments, communicate with students and give feedback. This is important because distance teachers meet their students rarely or even not at all, so the on-campus communication and discussion has to be supplemented by other means. It is therefore important to understand how distance teachers use the technology available to them and also to understand their beliefs and attitudes, in order to support them to develop good quality distance education.

Distance education has grown fast in higher education in Iceland, from 1997 to 2008 the number of distance students rose from 307 to 3.295 [6, 7]. The programs are different in each university, some universities are only offering single distance courses while others are offering full programs, that the can end with degrees. The organisation of the distance learning programmes is also different, in some programs the students must attend on-campus sessions, but in others it is not obligatory and some programmes even do not include on-campus meetings. Often the teachers must design

and prepare e-material for the distance students that may consist of recorded lectures, slide presentations, video clips, interactive assignments and files in different formats.

This paper describes a survey conducted at Reykjavik University (RU) in Iceland, examining the attitudes and beliefs among the distance teachers. RU has two distance programs, Diploma in Technology (90 ECTS) and Diploma in Applied Computing (120 ECTS), and uses its own LMS called MySchool. The distance teachers are encouraged to be active in their distance teaching and are offered support, both technical and pedagogical. They have to make their own e-material and a typical e-material is a recording of a slide show with the teacher's explanations. The student can see what is on the teacher's screen and listen to his/her voice but he/she does not see the teacher. Of course there can be different software on the teachers' screen and the teachers can use special monitors to write or draw on to explain further. In addition to that the teachers prepare a variety of material in different formats for the distance students. The distance teachers have the opportunity to meet with students once or twice each term, when the distance students are invited to come on campus, but it is not obligatory for the distance students to attend those meetings.

METHOD

The study was conducted in the autumn 2008 at Reykjavik University (RU) in Iceland. The participants were distance teachers in two diploma courses at RU, Technology and Applied Computing. The response rate was 70% or 21 answers, females were 3 (14%) of the respondents and males 18 (86%).

An especially designed questionnaire based on the author's previous research [8, 9, 10] was used in the study. The questionnaire consists of three background questions, two questions about communication, one multi-item question about the use of different online options, rated on a five point scale, and one multi-item question about the attitudes towards distance teaching, also rated on a five point scale. In the end there was an open question for the participants to give their opinion on distance education. A special software for interactive data collection, *Outcome* (www.outcome.is), was used and a request to participate was sent to teachers by e-mail. The study was anonymous and there was no possibility of tracing individual answers.

RESULTS

Just over half (13, 59%) of the distance teachers were 51 years or older, 5 (22%) were between 40 and 50 years old, and 3 (14%) under 40. Most (18, 86%) of them claimed that they had good preparation for using computers in distance teaching.

The distance teachers were asked about their attitudes toward distance education and most (18, 86%) of them found distance education a realistic alternative in Icelandic education and 17 (81%) agreed that everyone can study by distance education if they are patient and interested as table 1 shows. About half (12, 57%) of the distance teachers said they wanted more training in distance teaching and only 1 (5%) disagreed. Just over half (11, 52%) of them agreed that with time and training it will be as convenient to teach at distance as on-campus, but they were not all convinced as 29% (6) disagreed to that statement.

Table 1. Distance teachers' attitudes toward distance education

	Agree or totally agree N (%)		Neutral N (%)		Disagree or totally disagree N (%)	
Distance education is a realistic alternative in Icelandic education	18	86%	2	10%	1	5%
Everyone can study by distance education if they are patient and interested	17	81%	3	14%	1	5%

Educational standards in distance education are comparable to standards in on-campus education	16	76%	3	14%	2	10%
Course assessment is sufficient in distance education	14	70%	5	25%	1	5%
Distance teaching is an exciting option that I want to take more advantage of	14	67%	4	19%	3	14%
More training in distance teaching methods is needed for distance teachers	12	57%	8	38%	1	5%
With time and training it will be as convenient to teach at distance as on-campus	11	52%	4	19%	6	29%

The distance teachers were asked what on-line options they used for their distance teaching and all of them (21,100%) reported using the school's LMS 'always' or 'often' and most (20, 95%) of them claimed they 'always' used PowerPoint slides. Nearly all of the teachers (20, 95%) said they expected students to hand in their assignments online and almost all (17, 81%) of them recorded material for their students. Online discussion was used by half (12, 57%) of them, but only 2 (10%) claimed it was a part of the grading to take part in online discussion.

When asked about other options 5 (29%) claimed they used e-mail 'always' or 'often' to distribute material and 3 (26%) graded students assignments online as figure 1 shows.

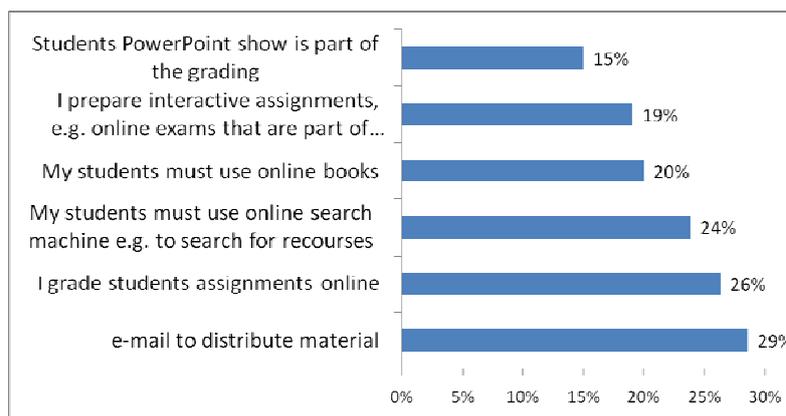


Fig.1. Distance teachers' use of online options (always or often).

Six other options were only used by one to three distance teachers; their own WebPages, mail printed material or audio-tapes to the students, computer programs made for learning, instant messaging clients (on-line chat), students own web sites for their projects and they rarely recommend online or traditional library to the students. No one claimed to use Blogg webs as part of the learning process, WebQuest, or send material on CDs to the students.

In Table 2 we can see distance teachers' attitudes towards their educational work. Most of them (15, 79%) believed that they reached the educational goals they set in their distance courses, but 4 (21%) of them were unsure. More than half (12, 57%) disagreed that they were insecure about their ability to teach online, but 5 (24%) agreed and 12 (60%) did not agree that LMS controls to much the distance teaching.

Table 2. Distance teachers' attitudes towards they educational work

	Agree or totally agree N (%)		Neutral N (%)		Disagree or totally disagree N (%)	
I can gain the educational goals I set in my distance courses	15	79%	4	21%	0	0%
I am satisfied with my online courses	15	71%	3	14%	3	14%
It bothers me not to be able to user black-board in the	6	30%	5	25%	9	45%

distance teaching						
I am insecure about my ability to teach online	5	24%	4	19%	12	57%
Teaching methods are not diverse enough in distance education	3	14%	10	48%	8	38%
Teaching result are better in distance teaching than in on-campus teaching	1	5%	10	48%	10	48%
LMS controls to much the distance teaching	0	0%	8	40%	12	60%

Table 3 describes the distance teachers' attitudes towards distance students and communication. All (21, 100%) of them agreed that distance teachers must answer students quickly and without fail, but only half (11, 52%) agreed that the time limits should be less than 24 hours. Almost all (20, 95%) agreed that it is important to meet distance students face-to-face and over half (12, 57%) disagreed that they have more control over students learning in distance teaching than in on-campus teaching.

Table 3. Distance teachers' attitudes towards distance students and communication

	Agree or totally agree N (%)		Neutral N (%)		Disagree or totally disagree N (%)	
Distance teachers must answer students quickly and without fail	21	100%	0	0%	0	0%
It is important to meet distance students	20	95%	1	5%	0	0%
It is very important that teachers' answers get to the students in less than 24 hours	11	52%	7	33%	3	14%
Teachers must make sure that distance students use online communication among them selves	9	45%	8	40%	3	15%
More counselling and support is needed for distance students	8	42%	9	47%	2	11%
Communication with distance students is more burden for the teacher than in on-campus teaching	8	38%	6	29%	7	33%
Distance students use more variety of resources than on-campus students	3	14%	12	57%	6	29%
Students do not have enough technical skills to use distance education	2	10%	11	55%	7	35%
I have more control over students learning in distance teaching than in on-campus teaching	1	5%	8	38%	12	57%

Figure 2 shows the frequency of the distance teachers' on-line communication with the students. The distance teachers seem to communicate more frequently with the student group on a daily basis (every day or 2-3 times a week), but more frequently with the individual student on a long term basis (weekly or more rarely).

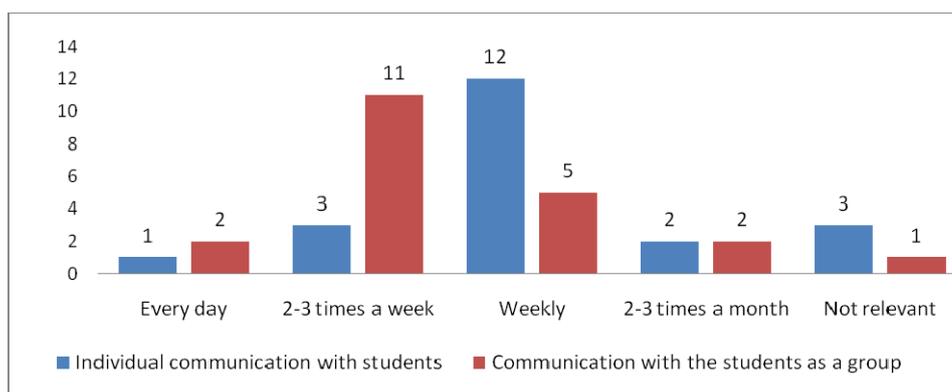


Figure 2. Distance teachers' communication with the students.

Five distance teachers gave their opinions about distance education and two of them had very practical comments, one wanted to meet the distance students four times a semester and the other did not understand how on-line exams, with multiple questions, could be used in math or bookkeeping subjects. One did not accept that the role of the teachers was to support communication between distance students. Two gave very positive comments of their experience as distance teachers and although they claimed it was a lot of work they were very content or as one said: *"I am pleased with how the distance teaching is coming along and the students seem to be happy in the distance education. The success is based on a lot of work, I have made a lot of slide shows and recordings and I have weekly assignments. I record the solutions of the assignments and send the students. It is also exemplary how helpful and supporting the administrators of the distance education are."*

CONCLUSIONS AND FUTURE WORK

The distance teachers that participated in the survey were almost all over 40 years old and claimed they had good preparation for using computers in distance teaching, although half of them wanted more training in distance teaching methods. They think distance education is a realistic alternative in Icelandic education and are satisfied with their online courses.

The RU guidance for the distance teachers is to use the LMS, record material and be active sending material to the students and answer their questions and requests within 24 hours (except for weekends and holidays). They are also encouraged to use all the options that the LMS offers, e.g. the assignment system, interactive assignments, online discussion and chat. The participants in the study followed the school guidance up to a limit; they accepted that distance teachers must answer students quickly and without fail, although they were not sure about the 24 hours time limit. They were all active using main features in the LMS and believed it did not control too much of the distance teaching. They recorded material to send the students and used the assignment system to get students' solutions. Other options were used by only half of the group or fewer, e.g. online discussion, chat and interactive assignments. They agreed that it is important to meet distance students face-to-face and they communicated frequently with the student group on a daily basis, but more frequently with the individual student on a long term basis. They believed they reached their educational goals, but 24% were insecure about their ability to teach online.

Mumitaz [11] comes to the conclusion, built on a literature review, that it is the institution, the teacher and the resources that are the three main factors affecting ICT use in education. Reykjavik University has offered distance education since 1998, with a broad use of ICT and support for the teachers. The University emphasises good resources, e.g. LMS and online library, and monitors the development of new options to implement into the LMS and teachers work. In the survey the focus was on the distance teachers and the results indicate that they can master the main options of the LMS and want to be active in their teaching, but what is stopping them for using more online options? They do hardly need more technical skills as they can manage the LMS and the recording of the material, but what do they need? Built on his research Barak [12] claims that although teachers use sophisticated technologies, when they are self studying, they *"are careful and sensible regarding the extensive use of ICT in school."* (p. 134). This indicates that it is not enough for teachers to know how to use ICT in order to implement it into their own work; they need more training in how to use it for teaching. This is consistent with the distance teachers' answers in this study; they want more training in distance teaching methods.

The main conclusion is that we need to train the distance teachers in using ICT in teaching and online pedagogic; they have the technological skills needed. The training courses already offered to them seem not enough support for them to implement more

opportunities into their distance teaching. Distance teachers need a good knowledge of new online opportunities to be able to decide what can be put into practice in the different courses. It is not enough to know what can be done; you need to know how to use it in your online environment. It is a lot of work to be a good and active distance teacher; you do not only have to prepare material and be active communicating with the distance students, you must also be up to date in all the new software that is on the market and be open minded for new opportunities. The school and the distance teachers must work hand in hand to make sure that we are offering students good quality distance education.

REFERENCES

- [1] Davis, D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, Vol. 13, No. 3, 319-40.
- [2] Kellenberger, D., and S. Hendricks. (2003). Predicting teachers' computer use for own needs, teaching, and student learning. Paper presented at *Hawaii International Conference on Education*, Honolulu.
- [3] Sadik A. (2006). Factors Influencing Teachers' Attitudes Toward Personal Use and School Use of Computers: New Evidence From a Developing Nation. *Evaluation Review*, Vol. 30 No. 1, 86-113.
- [4] Li Q. (2007). Student and Teacher Views about Technology: A Tale of Two Cities? *Journal of Research on Technology in Education*, Vol. 39, No. 4, 377-397.
- [5] Menchaca, M. P. and Bekele, T. A. (2008). Learner and instructor identified success factors in distance education. *Distance Education*, Vol. 29, No. 3, 231-252.
- [6] Ásrún Matthíasdóttir (2008). Distance Education in Iceland. A glimpse into the future. *Lifelong Learning in Europe*, Vol. 4.
- [7] Statistic Iceland, 2008, hagstofan.is
- [8] Anna Ólafsdóttir and Ásrún Matthíasdóttir (2004). Upplýsinga- og samskiptatækni í háskólanámi og kennslu. *Tímarit um menntarannsóknir*, Vol 1, 195-208.
- [9] Auður Kristinsdóttir, Ásrún Matthíasdóttir, M. Allyson Macdonald (2001). *Úttekt á fjarkennslu við Kennaraháskóla Íslands*. Rannsóknarstofnun Kennaraháskóla Íslands.
- [10] Ásrún Matthíasdóttir, Michael Dal og Samuel C. Lefever (2003). How do students use information and communication technology in Icelandic high schools 2002? Proceedings of the *4th annual Conference of the LTSN*, Center for Information and Computer Sciences.
- [11] Mumtaz, S. (2000). Factors Affecting Teachers' Use of Information and Communications Technology: a review of the literature. *Journal of Information Technology for Teacher Education*, Vol. 9, No. 3, 320 – 341.
- [12] Barak M. (2006). Instructional principles for fostering learning with ICT: teachers' perspectives as learners and instructors. *Educ Inf Technol* (2006) 11: 121-135

ABOUT THE AUTHOR

Ásrún Matthíasdóttir, Assistant Professor, School of Computer Science and School of Health and Education, Reykjavik University, Iceland, Phone: +354 5996200, E-mail: asrun@ru.is.