

Women's Participation in Online Learning in Sri Lanka

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INTRODUCTION

In Sri Lanka, women's representation in total undergraduate enrolment increased from 47.7 % in 1978 to 54.4 % in 2006. However, women's representation varies in different disciplines of study. In 2005/06 the percentage of women varied from 69.3 in Arts to .27.9 in Computer Science and Information Technology and to.20.4 in Engineering. Traditional stereotypes regarding fields suitable for women continue in spite of the pronounced interest of women in higher education.

Distance Education Modernization Project (DEMP) attempts to extend higher education opportunities to those who are denied university education through online programmes for the first time in the country. The opportunity to follow these on a flexi-schedule while working as well as the possibility to use a network of Access Centres spread-island wide would be extra motivating factors.

The study discusses the extent to which women have benefited in terms of enrollment and in active participation as Online students in two courses being offered currently.

REVIEW OF LITERATURE

Research on gender in computer-supported learning environments show that women possess lower levels of computer literacy, ability to access technology and confidence using this technology (Moffat, 1997; Spender, 1990). Nielsen et al. (2003) describe the way women represent their work experiences as dualisms—home vs. work; IT work vs. emotion; and so forth. Craig et al (1995) noted that the number of female students enrolled in computing courses was low. Durndell & Thompson (1997, p.3) found that young women perceived computers “as machine-focused, boring and unsociable - the antithesis of their interest in communication and ‘people-centred’ professions”. They suggest that using computers to learn, as opposed to learning about computers, may be less gendered. Women may choose some computing courses when offered in combination with other disciplines that emphasise social issues and computer applications (Henwood et al., 2000).

Asbell-Clarke and Rowe (2007) found that students in online science courses for teachers include more females. This could be the “anytime, anyplace” nature of online learning suiting female teachers' needs for flexibility, where women are fitting their education in among their regular work and home duties.

Herring's (2000) analysis of a computer-mediated discussion group found that the messages composed by men outnumbered those composed by women confirming Barret and Lally's (1999) study. Fahy (2002), however, found that men and women participated equally in discussions.

Stuart and McSporryan (2001) found that their online course favours women and older students, who seem more motivated, better at communicating online and at scheduling their learning.

Blum's (1999) study found that Online male students exhibited separate learning styles while females showed a preference for connected learning and that males tend to dominate the online environment resulting in a 'silencing of female students'. There was a pattern of more females

requesting help. The online institutional barrier for females could be higher because of females' lack of confidence with computers and they faced situational barriers due to lack of time. Barriers of a dispositional nature were due to male domination and lower female confidence in self, and in learning. Communication patterns showed males using rough words, being more assertive and trying to establish status and power.

OBJECTIVES OF THE STUDY

The objectives of the study were to find out

1. The percentage of women enrolled,
2. Differences in background characteristics of men and women students
3. Barriers that affect participation of men and women students
4. Gender differences in the level of confidence expressed by students in an online course, and
5. In communication patterns of students in selected online courses

METHODOLOGY

A questionnaire survey was administered electronically to find out the background characteristics and to identify the barriers faced by the students. In addition, messages posted by students on forums such as 'help wanted', responses to announcements, discussion forums and virtual canteens for approximately three months were analysed to identify differences in participation, level of self-confidence and communication patterns.

Background data was analysed using frequencies and percentages and qualitative data using content analysis.

DATA ANALYSIS AND DISCUSSION

Enrolment in Online Courses

The courses selected for the study were the Educational Technology course (ESE 4242) of the Open University of Sri Lanka and the ITE 1901 Course of the Bachelor of Information Technology Programme of the University of Moratuwa. The former had a total of twenty-five students, with a majority of women (15 or 60%) of whom three males and one female had dropped out. As this course focused more on teacher development and as the majority of teachers in the profession are women, more women may have been motivated to enroll. In the IT course the total number of students was 87 of whom, 30 or 34.5% were women.

Table 1 shows the response rates of men and women students in the two selected courses.

Table 1
Response to the Questionnaire Survey

Course		Male	Female	Total
Education	Current Enrolment	7	14	21
	No. Responded	3	7	10
	% response	42.9	50	47.6
IT	Enrolment	57	30	87
	No. Responded	3	14	17
	% response	5.3	43.3	19.5

The response rate for the survey was very low in the case of IT course, especially of men.

In age the students enrolled in IT course were younger with only one female being in the age range of 41-50. Fifteen who responded to the survey (1 man and 14 women) were less than thirty years of age. In the case of Education course, except for 2 females, others were between 31-50 years of age and one over 50.

Thirteen women from IT course had GCE (A.L) while three men had professional or equivalent qualifications and except for one woman those enrolled for Education were mainly graduates or postgraduates.

Both these courses were offered only in the English medium. Four women in IT course had not responded to this question and the others had completed some programme of study in the English medium earlier. One male and two women students of Education course had higher qualifications in English while one male did not have any qualification.

Five females of IT course and one male in Education course had no qualifications in computer technology and others had varying qualifications in this area.

The large majority of the students following the IT course (15 out of 17) were urban residents but in the case of Education there were six urban and four rural residents following the course.

Twelve unemployed female students in IT course had no issue of combining work and studies. Of the others, one female and one male student found it somewhat difficult and two others (one male and one female) found it extremely difficult to combine work with studies. In the case of Education, one male and four female students found it was not difficult (Table 4).

Table 4
How Difficult to Complete the Course

	IT		Education		Total		
	M	F	M	F	M	F	T (%)
Very difficult	1	1		1	1	2	3 (11.1)
Somewhat difficult	1	1	1	1	2	2	4 (14.8)
Not Difficult		1	1	4	1	5	6 (22.2)
No response	1	11	1	1	2	12	14 (51.9)
Total	3	14	3	7	6	21	27 (100.0)

Seven of female students in the IT course and eight students of the Education course (all three males and five of the seven females) said they had family responsibilities affecting their studies. However four of the seven in IT, two of whom were married, explained how these responsibilities affected studies. In the case of Education, married students, both male and female, claimed that family responsibilities affected their studies. In both courses, four unmarried females also said they had to devote time to domestic chores (Table 5).

Table 5
Combining Studies with Family Responsibilities

Course	Marital Status	Sex	No.	Reason
IT	Married	Female	1	Housework
	Married	Female	2	Housework and kids
	Unmarried	Female	2	Housework
Education	Married	Male	1	I am the only breadwinner & have to attend to household work & take kids to classes
	Married	Female	2	Helping children with studies

	Unmarried	Female	2	Housework
	Married	Male	1	Looking after aged mother & daughter's education
	Unmarried	Female	1	Caring for sick sister & her daughter & domestic chores
	Married	Male	1	Interacting with family affected

Factors identified as likely to affect the successful completion of their studies are given in Table 6. Specific factors such as lack of Face to Face sessions, poor communication with tutors, difficulty of course materials, were grouped as institutional barriers, lack of knowledge in programming, computer skills and lack of time, absence of anyone to help, as personal barriers and distance from the NAC and lack of infrastructure facilities as situational barriers.

Table 6
Factors likely to affect successful completion of course*

Barriers	IT		Education		Total	
	M	F	M	F	M	F
Institutional	-	3	-	-	-	3
Personal	-	1	2	6	2	7
Situational	-	-	1	5	1	5
Total	--	4	2	10	2	15

- Multiple responses

More female students (15 as against 2 males) had identified factors likely to affect the successful completion of the course. Three of the four female students in IT had identified factors related to the course while most of the students in Education had identified non-course related adverse factors.

Discussion Forums

Table 7 shows participation of students of the two courses in online discussion forums.

Table 7
Participation in Discussion Forums*

Type of Forum		IT		Education		Total		
		M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	T (%)
Announcements	1	None		53.8 (14)	46.2 (12)	53.8 (14)	46.2 (12)	2.7 (26)
	2			38.5 (10)	61.5 (16)	38.5 (10)	61.5 (16)	2.7 (26)
	3			35.5 (43)	64.5 (78)	35.5 (43)	64.5 (78)	12.6 (121)
	4			26.3 (10)	73.7 (28)	26.3 (10)	73.7 (28)	3.9 (38)
	Total			36.5 (77)	53.5 (134)	36.5 (77)	53.5 (134)	21.9 (211)
Discussions	1	57.9 (11)	42.1 (08)	61.9 (26)	38.1 (16)	60.7 (37)	30.3 (24)	6.3 (61)
	2	62.5 (15)	37.5 (09)	55.7 (39)	44.3 (31)	57.4 (54)	42.6 (40)	9.8 (94)

	3	57.1 (12)	42.9 (09)	54.5 (42)	45.5 (35)	53.2 (54)	46.8 (44)	10.2 (98)
	4	56.5 (13)	43.5 (10)	22.7 (15)	77.3 (51)	31.5 (28)	68.5 (61)	9.2 (89)
	Total	58.6 (51)	41.4 (36)	47.8 (122)	52.2 (133)	50.1 (173)	48.9 (169)	35.5 (342)
Help Wanted		32 (30.2)	74 (69.8)	26 (55.3)	21 (44.7)	58 (37.9)	95 (62.1)	15.9 (153)
Virtual Canteen		68 (44.7)	84 (55.3)	48 (45.7)	57 (54.3)	116 (47.2)	141 (52.8)	26.7 (257)
Total No. of Postings		43.4 (151)	56.6 (194)	44.2 (273)	55.8 (345)	44.0 (424)	56.0 (539)	963
Total No. Enrolled		57 (65.5)	30 (34.5)	7 (33.3)	14 (66.7)	64 (59.3)	44 (40.7)	108

* % indicates the % of total postings for type of forum

Table 7 shows that no discussions had occurred on announcements in Course IT. In the discussion forums, male participation was consistently greater. More women students requested help but in the social area, participation of women was higher. As a result, women had 56.6% of the total number of postings.

In Education, though, more men students had participated in the discussion following the 1st announcement, but the participation had steadily declined so that after the 4th announcement, 73.5% of participation had come from females. In the first three forums also the situation was similar but in the last, female participation was prominent thus giving a slight lead to female students in the overall discussion forums. Here a higher percentage of men (55.3) requested help but more women participated in the social area, .

When both cases are taken together, 56.0% of the postings were by women though more men students had enrolled in the courses.

Differences in Self-Confidence

It was not possible to identify the level of confidence of the students from the vast majority of the comments made by them. Those comments showing differences in levels of confidence were categorized as (1) Need help (2) Tentative (3) Hopeful and (4) Confident.

Table 2
Differences in Levels of Self- Confidence

Sex	Need help	Tentative	Hopeful	Confident	Total
IT					
Male	1 (33.3)	-	1 (33.3)	1 (33.3)	3 (23.1)
Female	6 (60.0)	1 (10.0)	1 (10.0)	2 (20.0)	10 (76.9)
Total	7 (53.8)	1 (7.7)	2 (15.4)	3 (23.1)	13 (100.0)
Education					
Male	7 (29.1%)	-	8 (33.3%)	9 (37.5%)	24 (42.9%)
Female	3 (9.4%)	5 (15.6%)	16(50.0%)	8 (25%)	32 (57.1%)
Total	10 (17.9%)	5 (8.9%)	24 (42.9%)	17 (30.3%)	56 (100.0)

The students following the IT course had participated in the Learning Forums 176 times, but surprisingly they were almost entirely focused on the subject and very rarely did they deviate to make personal comments or express their misgivings, frustrations or satisfactions. A very different picture occurred in the case of Education.

Comparing the differences in self-confidence of students thus, is not very meaningful. However, the highest percentage of IT students requested help while the highest percentage of Education students was hopeful of carrying out their studies successfully.

The following are examples of each level.

Category	Course	Sex	Statement
Need help	IT	Female	"I'm totally confused. Someone please help me"
	Education	Male	"I am also confused on how to do I would like you to explain me Please give me a clear picture about the task"
Tentative	Education	Female	"I am still bit confused but hope I will be able to fulfill my expectations of this course"
	IT	Female	"Sometimes it is confusing about what is expected from us... but will try our best to stay within"
Hopeful	Education	Female	"Initially I had great difficulty Every effort I made failed. However at last now I'm on the track though I feel as if the train has left leaving me behind. Anyway I will try my best to hold up"
Confident	Education	Male	"It's a great feeling to be an Online learner. I ... hope to see many more courses on line in time to come".
	IT	Female	"This is the first time I ever used a virtual classroom and I gained a lot from this".

Overtone: Cooperation or Authoritativeness?

Cooperative learning was a feature discerned in both courses. Both male and female students had contributed by accessing new knowledge, uploading them for others' benefit and discussing them. When they faced technical problems, they asked each other for help and offered help.

Only in two instances were authoritative overtones discerned in conversations of Education students.

Male to Female: "What a pity! Still, looking for extra time! ... Why extra time? To gather some baseless information? A brave leader will accept defeat and not abscond from it".

Male to Female: "Hi! Why the map not been completed? Too busy!"

In another instance, the student was quite piqued by the fact that he had been mistaken for a woman!

Male to Male: "You have mistaken me. I am an Onliner as you and a **proud man** not a woman".

Findings of the Study

The findings of this small study thus showed that

1. A higher percentage of women had enrolled in Education perhaps because it was related to teaching thus supporting findings of Asbell-Clarke et al's and Henbell et al's studies that women opt for courses perceived as relevant. It also supports the claim that "anytime, anyplace" nature of online learning suits female teachers' needs for flexibility for women to fit their education among their regular work and home duties.

However, lower enrolment of women in the IT course supports Craig's and Durndell and Thomson's findings.

2. More women than men students participated in the discussions in Education course supporting Fay's and not Herring's or Barret and Lally's findings. But the situation was different in IT. In social areas women's participation was greater in both courses.
3. Cooperative Learning was the pattern in communications rather than separate learning or a 'silencing of women' in both courses. Our study thus does not support Blum's findings on male domination.
4. A higher percentage of women requested help in IT course reflecting a lower degree of confidence.
5. Irrespective of marital status, women had difficulty in combining family responsibilities with studies.
6. More IT students perceived institutional barriers and more Education students, personal barriers in completing the courses though the numbers were small.

The study indicates a need to provide access to women to Computer training programmes to enhance confidence, improve learner support in institutions and in general raise awareness in society on shared family responsibilities.

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