

Dropouts from E-Learning Courses and Students' Satisfaction with E-Learning

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Abstract

The paper deals with dropout rate from e-learning academic courses in correlation with students' satisfaction with distance education. The study explores two main ideas: students' satisfaction with e-learning and locus of control. Results show that the main reason for persistence in e-learning academic courses is significantly high level of satisfaction with e-learning and satisfaction with students' own academic performance.

Key words: e-learning, dropout rate, successfulness, satisfaction

1. Introduction

A few decades ago it would have been impossible to imagine that students would study at universities where there would be no classrooms at all. Asynchronous Learning Networks (e-learning or e-study) is the main medium to study through Internet (Thor, 2004). Distance education has existed for about 500 years, since the first book was printed and a reader could learn directly from a book without a teacher being present to explain the topic. With e-study we understand learning and teaching through internet or in a virtual environment but then e-learning is just one way of studying and teaching in distance learning courses.

There are a significant number of articles that offer definitions in literature defining e-study, e-education. Various authors state that e-education is the education which involves electronic media in the process of education (Jereb in Šmitek, 2006).

On-line study basically differs from the traditional one which takes place in traditional classrooms; e-students have their own pace of study, they can study whenever and wherever they want if only access to Internet is available.

A student can co-operate and work with a mentor, professor and peers on a daily basis in an asynchronous and synchronous way, using different communication tools.

This is doubtless of an utmost importance in the society where continuous and life long education has become a necessity either to keep a work post or to acquire a better one. Besides, e-learning is more interactive than traditional learning in traditional classrooms. (Jereb in Bernik, 2007)

There are several practical reasons that speak in favour of e-learning: There is no need for commuting to and from lectures, which contributes to lessening the costs of transport; time which would be used for commuting can be better spent on study itself. There are no costs of living away from home, renting a room or flat, the employed students don't have to ask for days off, there are no classes at weekends, and beside time flexibility e-study offers better learning management. Many students would be denied the possibility to complete their studies because of family obligations or work time if there had been no e-study. Further on, the conception of dropout will be presented and satisfaction with e-study, as well as methodology and results of the research.

2. Defining the Term Drop Out and Satisfaction with E-Study

Levy (2004) offers an appropriate definition of the term dropout students: these are students who voluntarily withdraw from e-learning courses while acquiring financial penalties.

In Slovenia there is no add/drop period and thus it is not possible to drop out without penalties even in the first two weeks after the beginning of the term. Existing Slovenian literature referring to dropout rates in e-learning does not abound because there have only been made the first steps into e-learning. Foreign literature states distinctive number of drop outs in e-courses as well as in distance courses before the introduction of internet (Tinto, 1975). A number of authors agree that dropout is a complex phenomenon (Billings, 1988; Parker, 1999; Volkwein in Lorang, 1995; Williamson in Creamer, 1988). Xenos (2004) states, that administrators and teachers must determine the causes for dropout rate. Munro (1987) states that dropout is a symptom while causes can be quite numerous and can differ substantially. Kember's model is based on Tinto's and involves demographic factors, student's motivation, academic abilities and student's social factors. Moreover, Kember reproaches Tinto with not taking into account job motivation of adults. (Kember, 1989).

A number of authors believe that demographic factors do not influence dropout rate.

(Volkwein and Lorang, 1995; Williamson and Creamer, 1988). Dille and Mezack (1991) concluded that little research has been conducted on the personality traits that characterize a completer student in telelearning courses. They suggested that there exists an important correlation between age and successfulness of students in distance education courses. They claimed that older students and employed students drop out more frequently (Levy, 2006) than younger students. Moreover, the results indicate that gender and family status do not have an important role as a predictor of dropout from distance education courses.

Cheyung, Winiecki in Fenner (1998) point out that the main cause for dropout from distance courses is (dis)satisfaction of the students with the study itself. The study further on defines Slovene students' satisfaction with e-study.

Parker (1999) conducted a study of various variables as predictors of students' dropout from distance education courses. The focus of her study was in locus of control and some demographic characteristics such as gender, age, employment status. She concluded that locus of control was the main variable in predicting dropout rates with an overall accuracy of 80%. Locus of control also takes an important part in understanding the nature of learning process in different kinds of learning situations.

Rotter (1966) proposes locus of control as a measure of individual perceptions on outcomes resulting from their own behaviour relative to their perceptions on outcomes resulted from actions of someone else. Internal locus of control is developed by those students who believe that their academic success is attributed to internal factors (their own academic abilities) so they are firmly convinced that they have control and this motivates them. An external locus of control is significant for those students who develop their learned incompetence because of the fear of failure. They contribute their successes to external, »outer« factors such as chance, luck, fate or actions of others.

Key factors that the literature states referring to dropouts is satisfaction of the student with e- study. Several researches report that satisfaction of the student is the most important factor at making the decision whether to drop out or not. Cheyung (1998) reported that 42 percent of students who dropped

out expressed dissatisfaction with the learning environment as the reason for dropout. Fredericksen et al. (2000), also noted that the students who are very happy with the learning environment and e-learning in general, get higher grades, reach for better results and have higher grades at exams taken for the first time. Fredericksen et al. (2000) also state that older students have developed a higher degree of dissatisfaction with e-learning than younger students. Levy (2000) carried out a survey with 200 students and has found out that the satisfaction with e-learning is one of the key points for successful study. Sachs and Hale (2003) noted that universities and educational institutions should put major emphasis on students' satisfaction with study because this is the key predictor in dropout rate. The factors that cause (dis)satisfaction with e-study are pedagogic, forms of work, development of study programmes (Shea, Pickett, Peltz, 2003) Their research shows that students' satisfaction is in strong correlation with clarity and precision of instructions, organization of e-subjects, communication with mentors and professors, interaction with mentors who give instructions on line. Richardson in Swan (2003) examined social role in e-learning courses as one of the key factors for successful e-study as well as co-operation with mentors which is strongly connected with mastery of study topics. The sensation that a student masters academic topics fills a student with enthusiasm for further study and such a student will never drop out.

3. Methodology

Hypotheses

From the relevant literature above, it is evident that a potential factor related to students' dropout rates from academic e-courses is satisfaction with e-study. Reasons for dropout and satisfaction with e-study were researched through a survey which was distributed among e-students of the second and third grade of a three and four year business school. We defined several layers of questions which were then categorized and supported with a programme for statistical analysis SPSS.

The answers to our questions stated in the survey will help us understand which factors are related to dropout rates in e-courses and which factors are the ones that encourage e-students to continue and complete their e-academic courses. There were 152 students who answered the questionnaire. We inquired about satisfaction with e-study and successfulness of students, satisfaction of students with their own academic performance, reasons for not taking up traditional forms of academic course and also age and gender of students in correlation with successfulness.

The study proposes the hypotheses as follow:

1. The causes which affect dropout rate and successfulness of students are: a profile of an e-student, reasons for taking up e-study, satisfaction with e-study.
2. The dropout rate is lower with e-students than with traditional ones.
3. If students are satisfied with the e-study itself, then they tend to be more successful than the ones who are less skilled in e-technology and thus dissatisfied.
4. Considering gender, more women decide to take up e-study than men mainly because women are generally more persistent than men and this could be additional reason for a lower dropout rate of women in e-study.
5. E-study is taken up by younger people because they are better acquainted with information technology and they seem to be closer to virtual classroom.
6. E-study offers time flexibility in accomplishing tasks which is additional reason why the dropout rate is lower than in traditional study.
7. Distance from academic centres makes an important difference when deciding to take up e-courses.

After stating the hypotheses, a research was carried out on students of Business High vocational school in Maribor.

Instrument

There are two instruments employed in the research. The first is a survey which follows Likert's five level scales. Students were asked to rate each item on a five score Likert-type scale ranging from 1 »Strongly disagree« to 5 »Strongly agree«. By means of the survey we have determined demographic factors, part of the day when the students fulfill their study obligations, reasons for taking up e-study, satisfaction with co-operation with mentors, professors, organizers of e-study, satisfaction with their own performance and academic achievements, satisfaction with the work in programme environment, opinion on team work.

The second instrument was Bures seven item survey (2000) which is used in order to measure students' satisfaction with e-learning. This survey is also based on Likart's five level scales where 1 states »Strongly disagree« and 5 »Strongly agree«. The statements are:

1. Using WebCT (Web Course Tools) was frustrating.
2. Learning to use WebCT was easy.
3. WebCT was an effective way to learn the course content.
4. I learnt a lot because of the use of WebCT.
5. WebCT facilitates my work with other students in the course.
6. Group on-line activities did not improve the quality of my education.
7. I will not voluntarily take another course using WebCT.

4. Results of the Research

We ascertain that **dropout rate with e-students is not bigger in number than with traditional students**, it is vice versa. The data from Statistic annual of Republic of Slovenia show (2005) that dropout rate of students who are partly or fully employed reaches almost 50 percent, of 2438 students, enrolled in the 1st grade of high school courses in the year 2001/2003, 1074 students graduated, which makes 44.05 percents. At on-line study the dropout is lower than expected as in 2003/2004, 14.9 percents of students dropped out which means that some more than 85% of students successfully completed the course for a business secretary. The percentage of dropout was a bit higher in on-line commercialist course, 15.8 percents dropped out. A year later (2004/2005) the dropout from a business secretary course reached 16.9%, in a commercialist course it was 16.8 percents. In 2005/2006, 16.6% students in a business secretary course and 15.2% in the commercialist course which is shown in Fig 1.

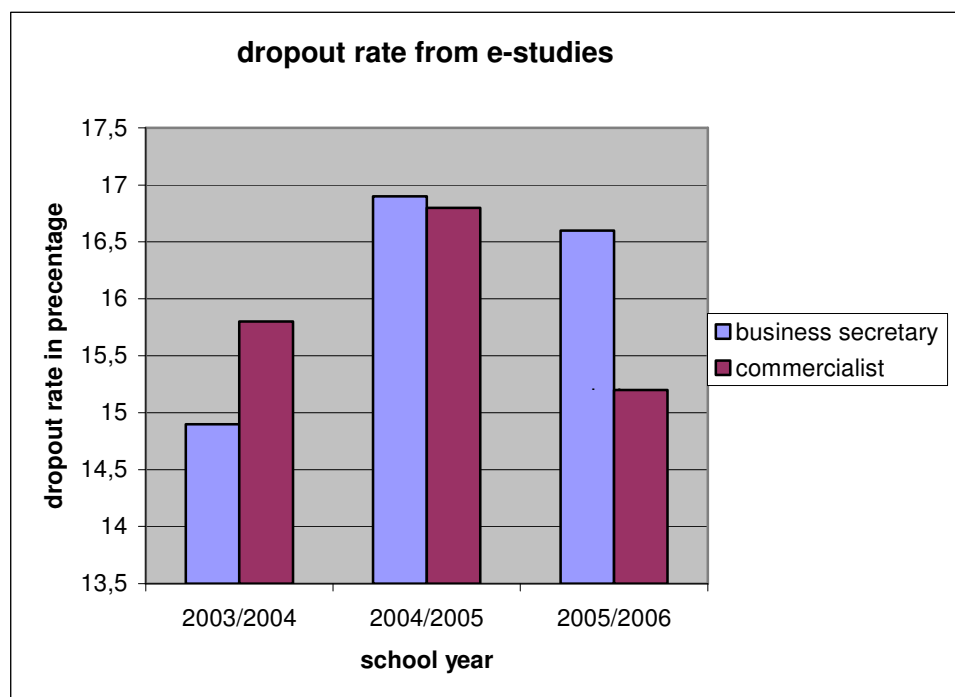


Fig 1: Dropout from e-studies in school years 2003/4, 2004/5, 2005/6

Such a low percentage of dropouts is due to various factors: e-study is taken up by people who are employed already and need further education and knowledge to get a promotion at work or to get a job. This is why these students do not laze and procrastinate. They want to complete the studies as soon as possible because they have a number of obligations – besides work, they usually have a family to look after and obligations connected with their study. Besides, financially e-study is quite a handful in Slovenia for most students so they really do their best to complete it. Students have a strong support in their mentors who are constantly within reach and the course is designed in such a way that it demands serious, devoted and hard work. If a student deviates from their personal weekly plan, the organizers and councilors get in touch with them, and kindly invite them to continue with the work.

If students are satisfied with e-study, they are successful. This statement matches Levy's findings (Levy, 2006). Table 1 shows that students are generally happy with the course (average is 5.3 on the scale from 1 to 7 in the last year). It is clear that most students are satisfied and even very happy with their own performance and successfulness (over 87 percents of valid answers of the questioned students).

Table 1: Satisfaction of students with a course, professor, mentor and materials

| | Programme | Professor | Mentor | Materials |
|-----------|-----------|-----------|--------|-----------|
| 2003/2004 | 5,3 | 6,1 | 6,0 | 5,2 |
| 2004/2005 | 5,2 | 6,0 | 6,1 | 5,0 |
| 2005/2006 | 5,3 | 6,0 | 6,0 | 5,3 |

A scale from 1 to 7 is used, 1 meaning the least, 7 meaning the most

Table 2: Estimation of students' own academic performance

| Grade | 1 | 2 | 3 | 4 | 5 |
|--------------------|---|---|----|----|----|
| Number of students | 0 | 0 | 18 | 47 | 78 |

Successfulness of students, graded from 1 to 5, 1 means very bad, 5 means very good:

Students who labeled themselves as successful are more satisfied with the course, professors, mentor and materials (Table 2). Students who have difficulties with information technology are more dissatisfied and less successful. The question is whether they are less successful because they are dissatisfied or they are dissatisfied because they are less successful.

Further on we interviewed another 49 students and asked them about their last grade they got in the exam (from 1 to 10, 6 means pass, 10 means excellent). We also asked them about their satisfaction with the course (on the scale from 1 to 5). We found out that if the last grade improves, their satisfaction with the course will rise and vice versa. Our hypothesis is weakly confirmed: students who are satisfied with the course are more successful at examinations ($r=0,328$, $\alpha=0,05$, $p_{\alpha}=0,035$).

We present the contingent table below which shows the two observed variables where the distribution by individual values of both variables is presented.

Table 3: Correlation between the last grade obtained at the exam and satisfaction with e-study

| | | satisfaction | | | Total |
|-------|----|--------------|----|----|-------|
| | | 2 | 3 | 4 | |
| grade | 6 | 3 | 4 | 5 | 12 |
| | 7 | 0 | 2 | 5 | 7 |
| | 8 | 0 | 5 | 11 | 16 |
| | 9 | 0 | 3 | 8 | 11 |
| | 10 | 0 | 1 | 2 | 3 |
| Total | | 3 | 15 | 31 | 49 |

It can be seen (Table 3) that among those who are less satisfied (2) there are only students with the lowest grades (6) and nobody got a better grade in this group. At high level of satisfaction (3, 4) prevail the students with higher grades. This goes in for our hypothesis although the value of chi square test on such categorial data is 10,5 which at 8 degrees of freedom is not statistically significant. To get a stronger confirmation, more units of observation would be needed because in our case there are too many empty cells.

More women than men get education through e-learning. In the present research this statement was confirmed. As we mentioned in the introduction, 36 females and 13 males answered the question about gender which means three times as many woman than men took up e-course (over 70 percents). According to the data in the table below (Guide for e-study 2006/7), the result is somehow expected.

Table 4: Representation of sexes in percentage at three and four-year high school for years from 2002 until 2007. (Guide for long distance study, 2006/2007)

| | Three year course | | Four year course | |
|-----------|-------------------|-------|------------------|-------|
| | women | men | women | men |
| 2002/2003 | 57,00 | 43,00 | | |
| 2003/2004 | 75,00 | 25,00 | | |
| 2004/2005 | 75,00 | 25,00 | | |
| 2005/2006 | 69,00 | 31,00 | 81,6 | 18,4 |
| 2006/2007 | 73,80 | 26,20 | 68,9 | 31,10 |

We can confirm the statement that the rate of women who take up e-learning courses is higher than men (table 4). It can be seen that in all years among the enrolled students women prevail. Representation of women is growing through years ($t=7,398$, $\alpha=0,05$, $p_{\alpha}=0,000$). With negligible level of significance we deny the hypothesis and accept the alternative that more women than men take up e-learning courses. In all given years (from 2002 to 2007) more women enrolled in e-learning courses than men (Fig. 2). Women are generally more diligent, they have to try harder than men to reach a certain status, they have become more ambitious, and they crave for better jobs. A number of women were forced to give up traditional forms of study for family reasons and work but nowadays study, education and graduation are available and possible even if they might have family and job obligations.

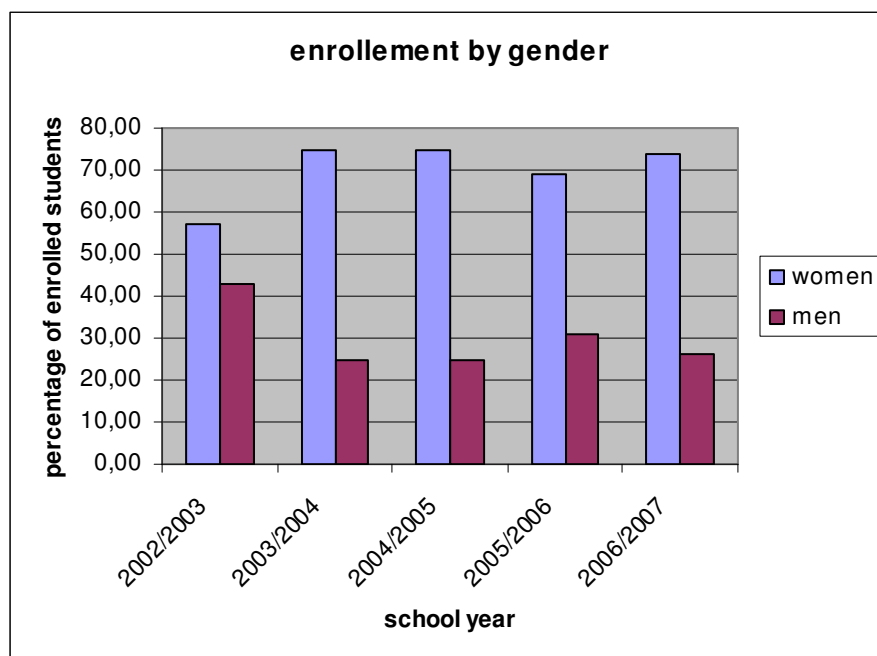


Fig 2: Enrollment in e-learning courses by gender

The statement that it's young people who take up e-study because they are more acquainted with information technology is inconsistent with the facts.

The data obtained by the survey show age structure of students as can be seen in table 5.

Table 5: Age structure of e-students

| | Up to 24 years | 25-34 years | 35-44 years | above 44 years |
|--------------------|----------------|-------------|-------------|----------------|
| Percentage | 2 | 29 | 56 | 13 |
| Number of students | 1 | 14 | 27 | 6 |

It can be seen that more than half students who answered the question belong to the third age group which means quite a large number of students in this age group. 70 percents of all students in e-courses are over 35 years old. In this case the statement that it is younger students who take up e-study is inconsistent with the present situation.

Distribution of students into a particular group can be calculated by chi square test. Observed (factual) frequencies and expected (theoretical) frequencies are presented in Table 6.

Table 6: Distribution of students according to age

| | Up to 24 years | 25-34 | 35 - 44 | From 45 years on | together |
|---|----------------|-------|---------|------------------|----------|
| O | 1 | 14 | 27 | 6 | 48 |
| E | 12 | 12 | 12 | 12 | 48 |

O – observed (factual) frequency in the cell of i column and J row of the contingency table

E – expected (theoretical) frequency in a particular cell

Categorization of enrolled students by their age reveals that in the different age groups there are different percentages of students and we can not claim that age has no influence on enrollment. This can be confirmed by a statistical test using Pearson's chi square test ($\chi^2=8,042$, $\alpha=0,05$, $p_\alpha=0,045$). We deny the hypothesis and confirm the statement that age structure is not even and constant among e-students. The majority of students are in the age group of 35 to 44.

Further on (Table 7, table 8) we will calculate if gender and age are correlated.

Table 7: Age and gender of e-students

| | Up to 24 years | 25 - 34 | 35 - 44 | From 45 on | TOGETHER |
|----------|----------------|---------|---------|------------|----------|
| Women | 1 | 10 | 20 | 4 | 35 |
| Men | 0 | 4 | 7 | 2 | 13 |
| TOGETHER | 1 | 14 | 27 | 6 | 48 |

Table 8: Age and gender of e-students in percentage

| | Up to 24 years | 25-34 | 35-44 | From 45 on |
|-------|----------------|-------|-------|------------|
| Women | 3 | 29 | 57 | 11 |
| Men | 0 | 31 | 54 | 15 |

It is evident that the percentage by age groups among the sexes are similar and we can not define a significant the difference between gender and age. The hypothesis is verified by chi square test (table 9, table 10).

Table 9: Age and gender of e-students, a table of observed (factual) frequencies

| | Up to 24 years | 25 - 34 | 35 - 44 | From 45 on | TOGETHER |
|-----------|----------------|---------|---------|------------|----------|
| Women | 1 | 10 | 20 | 4 | 35 |
| Men | 0 | 4 | 7 | 2 | 13 |
| TOGHETHER | 1 | 14 | 27 | 6 | 48 |

Table 10: Expected frequencies

| EXPECTED | Up to 24 years | 25 - 34 | 35 - 44 | from 45 on | TOGETHER |
|----------|----------------|---------|---------|------------|----------|
| Women | 0.729 | 10,208 | 19,688 | 4,375 | 35 |
| Men | 0.271 | 3,792 | 7,312 | 1,625 | 13 |
| TOGETHER | 1 | 14 | 27 | 6 | 48 |

Even at a hasty glance it is evident that frequencies are closely connected and correlated. The value of chi square test will be quite low. Comparison of e-students by gender and age groups shows that in every age group the number of women prevails. The comparison also shows that the share of students by individual age groups is the same for both sexes. It means that we can not conclude that there is difference between males and females in age structures in e-study. Pearson's chi square test confirms our findings. ($\chi^2=0,015$, $\alpha=0,05$, $p_\alpha=0,998$).

Young people in the age group up to 24 prefer to take up traditional forms of study because of social and companionable specifics. It is quite possible that the fee for e-study is too high.

The fact that students over 45 are in minority (3 percents) which is shown in the lower fig. 3 is not connected to knowledge and skills in computing but people over 45 have already established their position in the society and are not prepared to change it any more. And they are not willing to go back to studying even if it were e-study. (Fig.3).

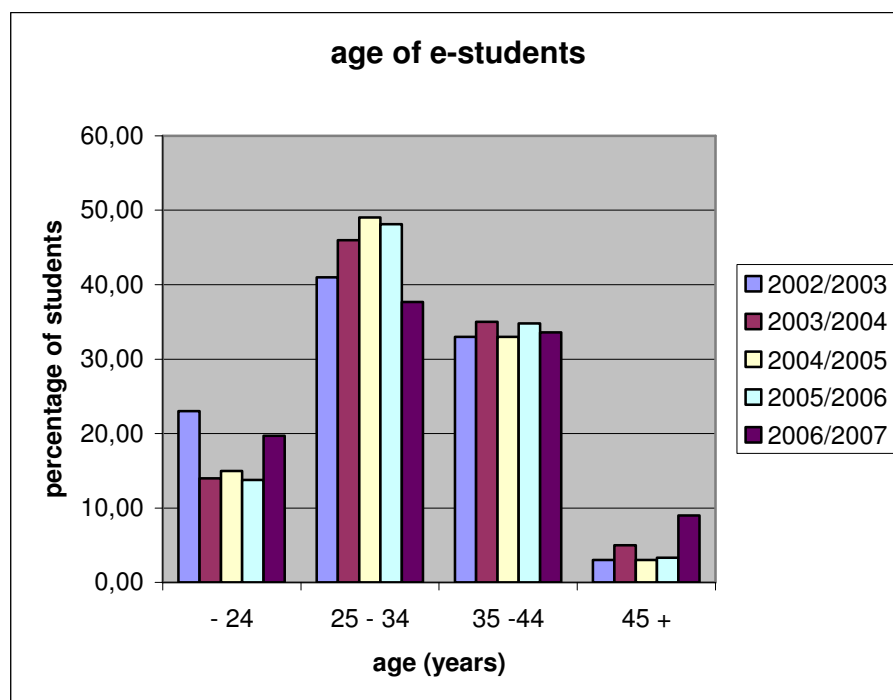


Fig 3: Age of e-students in percentage for each school year

Students take up e-learning courses because of time flexibility. This is the reason why almost half of e-students decided to take up e-learning courses and this can be seen from the table below (Table 11):

Table 11: Reasons for taking up e-study in percentages

| | 02/03 | 03/04 | 04/05 | 05/06 three year course | 06/07 four year course |
|-----------------------------------|-----------|-------------|-------------|----------------------------|---------------------------|
| Time flexibility | 41 | 44,0 | 40,0 | 43,0 | 42 |
| Independence | 15 | 10,0 | 19,0 | 18,0 | 18,0 |
| Family | 18,0 | 21,0 | 17,0 | 19,0 | 18,0 |
| Distance from the study centre | 7,0 | 7,0 | 5,0 | 5,0 | 7,0 |
| Job | 11,0 | 15,0 | 15,0 | 7,0 | 12,0 |
| Novelty | 6,0 | 3,0 | 4,0 | 4,0 | 3,0 |

From Table 11 it is evident that almost half of the students named time flexibility a specific reason for taking up e-learning course. In all given years the values at this reason exceed 40 percents and are far above all other reasons. Calculation of statistical t-test for the year 2006/07 (42 percents) counting average numbers at all reasons shows that this value is statistically different from others and so our hypothesis can not be confirmed. ($t=-4,508$, $\alpha=0,05$, $p_{\alpha}=0,006$).

Students do not decide to take up e-learning courses because of distance from study centres.

Distance from study centres is in Slovenia of a minor importance because Slovenia is not a vast country where distances would actually make any serious differences. Study centres are not really out of reach. Even though and maybe just because of that we are not used to commuting and we do not want to travel to a study centre for an hour or more. The table below shows that geographical distance does not present an obstacle for taking up an academic course and we will deny the sixth hypothesis as it is only 7 percents of students who stated that the main reason for e-learning course is the distance from study centres. It is shown in Table 12.

Table 12: Reasons for joining e-courses in percentages

| | 02/03 | 03/04 | 04/05 | 05/06 three year course | 06/07 four year course |
|---------------------------------------|------------|------------|------------|----------------------------|---------------------------|
| Time flexibility | 41 | 44,0 | 40,0 | 43,0 | 42 |
| Independence | 15 | 10,0 | 19,0 | 18,0 | 18,0 |
| Family | 18,0 | 21,0 | 17,0 | 19,0 | 18,0 |
| Distance from the study centre | 7,0 | 7,0 | 5,0 | 5,0 | 7,0 |
| Job | 11,0 | 15,0 | 15,0 | 7,0 | 12,0 |
| Novelty | 6,0 | 3,0 | 4,0 | 4,0 | 3,0 |

It is evident from Table 12 that in the last year only 7 percents of students named distance as the main reason for e-learning course. In comparison with other reasons this is a rather low value and in this study out expectations that distance can be a reason for taking up e-learning course turn out to be inconsistent with the present situation. This can be confirmed by a statistical t-test ($t=1,723$, $\alpha=0,05$, $p_{\alpha}=0,146$). Fig. 4 shows the reasons for taking up e-study.

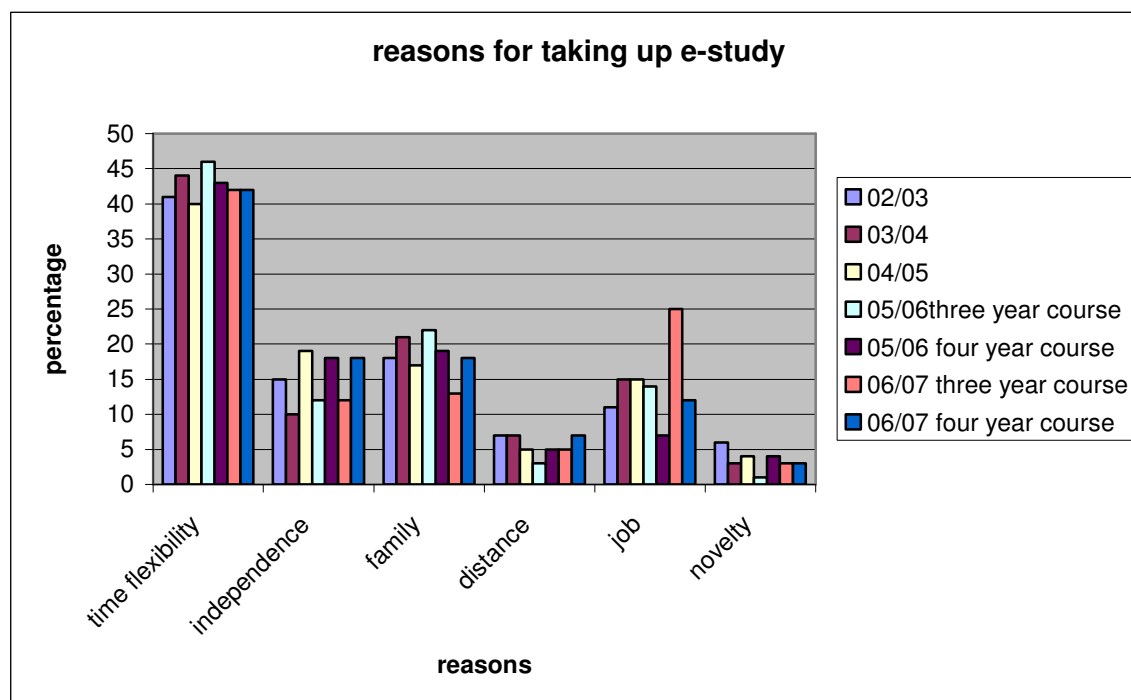


Fig. 4: Reasons for taking up e-study

Students accomplish their academic obligations in the evening and not throughout the day. Almost half of the students who were asked only studies in the evening, only about one tenth of the students perform their academic duties in the morning before going to work as can be seen from the table below:

Table 13: Part of the day when students perform their academic obligations

| Part of the day for academic obligations | 1 | 2 | 3 | 4 | 5 |
|--|----------|----------|-----------|-----------|-----------|
| Morning | 81 | 3 | 28 | 16 | 42 |
| Afternoon | 4 | 12 | 32 | 28 | 76 |
| Evening | 4 | 0 | 24 | 28 | 96 |
| During work | 100 | 8 | 28 | 8 | 0 |

1-I strongly disagree, 5 - I completely agree

It is seen in table 13 that the questioned students do not support the notion that they perform their academic duties in the morning or during work. On the other hand, they study in the afternoon and especially in the evening. This hypothesis is strongly supported by our study: students accomplish their academic duties mainly in the evening.

The highest average takes the evening (4, 4 out of 5) as can be seen from Fig. 5. We assign each part of the day and we get an average as seen from Fig. 5.

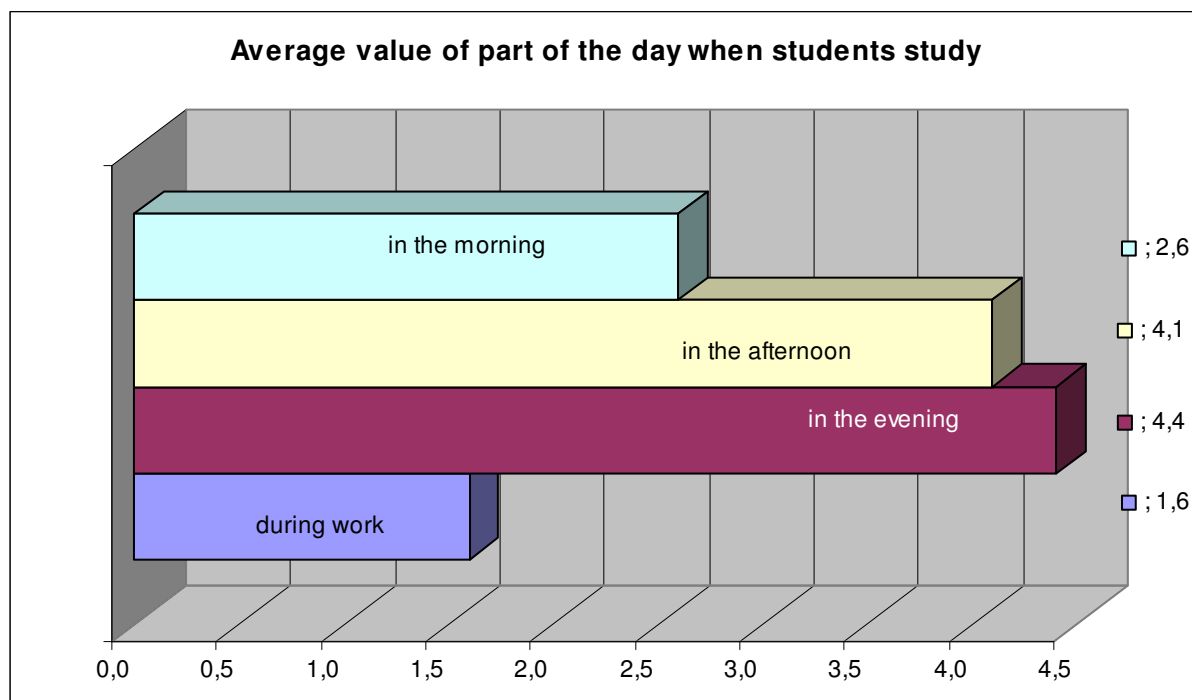


Fig 5: Average value of the part of the day when students fulfill their academic obligations

It is evident that the value is significantly different from the values for the morning and work time (with values 2,6 and 1,6) and not in the afternoon (with a high average 4,1) which means that students do their academic study and do their academic assignments mainly in the evening and only partly in the afternoon and almost never in the morning or during work.

In table 13 we can see that students study and perform their academic tasks mainly in the afternoon and in the evening. Validity of this statement can be checked by a statistical chi square test. ($\chi^2=21,377$, $\alpha=0,05$, $p_\alpha=0,045$). Students perform their academic tasks mainly in the evening and in the afternoon (Table 14).

Table 14: Part of the day to perform academic tasks:

| FACTUAL | | | | | | |
|------------------|-----|----|-----|----|-----|----------|
| O | 1 | 2 | 3 | 4 | 5 | TOGETHER |
| In the morning | 81 | 3 | 28 | 16 | 42 | 170 |
| In the afternoon | 4 | 12 | 32 | 28 | 76 | 152 |
| In the evening | 4 | 0 | 24 | 28 | 96 | 152 |
| During work | 100 | 8 | 28 | 8 | 0 | 144 |
| TOGETHER | 189 | 23 | 112 | 80 | 214 | 618 |
| | | | | | | |
| EXPECTED | | | | | | |

| E | 1 | 2 | 3 | 4 | 5 | TOGETHER |
|------------------|--------|----------|------|-------|--------|----------|
| In the morning | 52,0 | 6,3 | 30,8 | 22,0 | 58,9 | 170 |
| in the afternoon | 46,5 | 5,7 | 27,5 | 19,7 | 52,6 | 152 |
| In the evening | 46,5 | 5,7 | 27,5 | 19,7 | 52,6 | 152 |
| During work | 44,0 | 5,4 | 26,1 | 18,6 | 49,9 | 144 |
| TOGEHTER | 189 | 23 | 112 | 80 | 214 | 618 |
| | | | | | | |
| O- E | 29,0 | -3,3 | -2,8 | -6,0 | -16,9 | 0,0 |
| | -42,5 | 6,3 | 4,5 | 8,3 | 23,4 | 0,0 |
| | -42,5 | -5,7 | -3,5 | 8,3 | 43,4 | 0,0 |
| | 56,0 | 2,6 | 1,9 | -10,6 | -49,9 | 0,0 |
| | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | | | | | | |
| O-E^2 | 841,6 | 11,1 | 7,9 | 36,1 | 284,5 | 0,0 |
| | 1805,0 | 40,2 | 19,8 | 69,3 | 546,0 | 0,0 |
| | 1805,0 | 32,0 | 12,6 | 69,3 | 1880,6 | 0,0 |
| | 3131,7 | 7,0 | 3,6 | 113,2 | 2486,4 | 0,0 |
| | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | | | | | | |
| SUM(O-E)^2 | | 13202,8 | | | | |
| | | | | | | |
| SUM E | | 618,0 | | | | |
| | | | | | | |
| | | | | | | |
| CHI-SQUARE | | 21,36372 | | | | |
| DF | | 12 | | | | |
| | | | | | | |

1 strongly disagree, 5 strongly agree

5. Conclusion

The received results show that the persistence in e-learning courses is higher if students are satisfied with e-study and if they are happy with their academic achievements. It is evident that dropout in e-learning courses is lower than the dropout in traditional studies. Considering gender, women prevail over men; the majority of the students belong to the age group between 35 and 44. E-learning courses are mainly taken up for the flexibility of study. The students themselves manage their own time and decide about the part of the day when they want to perform their academic tasks. Geographical distance from study centres is irrelevant when deciding to take up e-learning course.

A contribution of the paper is twofold: firstly, it attempts to stimulate the researches on dropout and reasons which prevent students from completing the on-line academic courses. It is supposed to invoke new researches which would help to concentrate on factors behind the dropout rate in e-learning courses.

The other contribution is findings about e-learning courses related to students' satisfaction with e-study which is a very important predictor of success or failure at academic courses. The results of the study are greatly consistent with the existing literature. There is a discrepancy at the percentage of dropouts. The paper offers an insight into some key factors which influence the successfulness of e-study.

The main limitation of the research is the lack of data about e-students from various institutions. The survey was carried out in one institution only which deals with e-learning academic courses, thus the situation on other institutions needs to be considered and studied further on.

Additional researches are needed on the field of motivation and locus of control which lead into dropout or into successfully completed course. Such researches should focus on students who complete the study successfully as well as those who drop out. Thus we will be able to understand which are the reasons and mechanisms that lead to dropout.

It would be of an utmost interest to make a comparison between academic success of on-line and traditional students.

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