Perception of a Group of Students about the Online Learning Environment

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Abstract

There are several challenges in education nowadays. In a technology era, there are many different approaches available to educate. The possibility of using different tools implies different methodologies that increasingly demand the ability of organizing and managing different tasks at the same time, as well as facilitate more collaborative environments, where the roles of teacher and student gain a new dimension [1]. *For that to happen we need to create learning environments that promote the development of competences that allow students to be successful in this type of environment, as well as assuring the students feel supervised in their virtual classes* [2]. *This study has the goal of understanding students' perceptions of an online learning environment where they study. A total of 36 graduate's online students participated in the survey, as volunteers; 22,2% males and 77,8% females That participants doing their first degree in an online format. We used the Distance Education Learning Environment Survey (adapted) to collect data. This instrument assesses students' perceptions of virtual learning environments using six scales: Professor Support in virtual class, Student Interaction and Collaboration, Personal Relevance, Authentic Learning, Autonomy and Student Satisfaction. We designed the first part (Part I) the questionnaire to collect information related to the students (6 questions). Regarding part I, most the students have a personalized study plan, and spend 2 to 4 hours studying daily. The lowest grades found were in the scale student interaction. They present very positive perceptions concerning their autonomy as students, feeling happy as such. Knowing students' perceptions about how they study and interact with virtual environments is extremely important to assess their current processes and expectations and readjust, if needed, to help students, achieve success.*

Keywords: Online learning; adults learning; learning process; learning autonomy

1. Introduction

Changes in society have led to new challenges that saw in the development of information and communication technologies a way of overcoming shortcomings and to increase flexibility in education. New ways of thinking about education are arising and influencing communication and intervention, since they take in cyberspace. This environment change led to new ways of designing and structuring courses and to redefining the learners' and teachers' characteristics, amongst other things [3] [4]. Teaching in this context also implies specific ways of facing the support needed by online students'. That is *all activities beyond the production and delivery of course materials that assist in the progress of students to success in their studies* ([2], p.13).

The same author categorises the support to students' in two areas – academic level and non-academic level. Figure 1 shows this division and what each category represents.

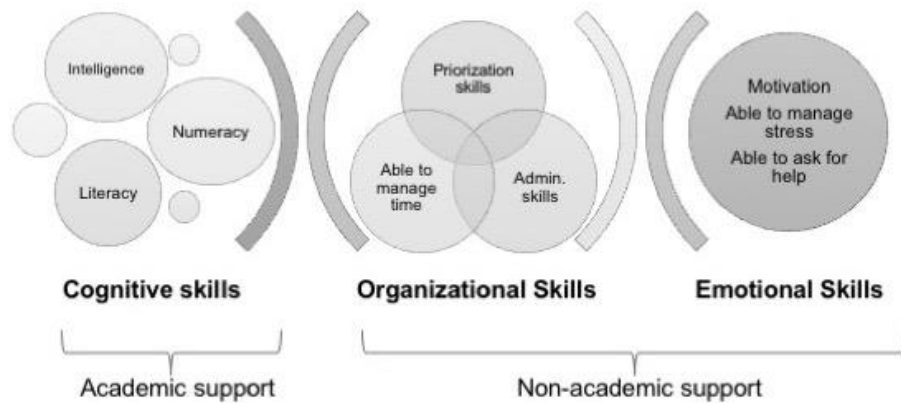[1] Universidade Aberta / Le@d, Portugal

Figure 1. Skills that students need to succeed in distance learning ([2] pág.15)

Education nowadays involves several challenges. Students are more autonomous and collaborative due to the use of technologies and that makes them less tolerant to teaching methods centred in the teacher [5]. Learning design is not a pedagogic tool in itself. It is a descriptive framework– *merely a description of what activities happened in the classroom online.* ([5], pág. 15). Learning desing is independent from any pedagogic theory. Our goals lead us to structure a course based on more constructivist or directive methods.

An important aspect in virtual learning contexts is selfregulation. It is associated with motivational and affective factors that are considered crucial in learning [6] [7] [8]. In the concept of selfregulation we find affective, cognitive and behavioral components. Selfregulation demands effort from students' in order to manage their own learning process.

It is in this context and taking into account all these factors that this research project was developed.

2. Methodology
2.1 Objectives
This study has the goal of understanding students' perceptions of an online learning environment where they study.

2.2. Design and participants

36 graduate online students' participated in the survey, as volunteers; 22.2% were males and 77.8% were females. The participants were doing their bachelor degree in an online format and they are enrolled in their final year of study (the course takes three years full-time).

The students were in their 3rd year of their 3-year Bachelor degree in Education, in an online university where the average grade is 14.6 (on scale from 0 to 20 – best possible score).

Table 1 describes the sample characteristics.

Table 1. Sample characteristics

Others elements	Yes	No
Do you have an individualized study plan?	**91.7%**	8.3%
Have you attended any other online course?	27.8%	**72.2%**

Most students (52.8%) spend "between 2 and 4 hours" studying. Around a quarter of the sample, spends "more than hours".

2.3. Material and procedure
Data collection happened at the end of their first semester in the academic year. Students volunteered to reply to the online questionnaire. The first part of questionnaire asked students general questions, used here to characterize the sample. The questionnaire also included the *Distance Education Learning Environment Survey* (adapted) to collect data. This instrument assesses students' perceptions of virtual learning environments using six scales: A) Professor Support in virtual class, B)

Student Interaction and Collaboration, C) Personal Relevance, D) Authentic Learning, E) Autonomy and F) Student Satisfaction.
The scale comprised 4 items (1- Never; 2- Rarely; 3-Frequently; 4-Always).

3. Results and Discussion

The results will be presented according to the different scales: firstly, we will present the general mean and standard deviation for each scale and after we will show the mean and standard deviation for each item in each scale..

3.1. General level

Table 3 shows the mean and standard deviation found in each scale.

Table 3. Mean of scales

Scales	Mean	SD*
Scale A - Professor Support in virtual class	3.0	.10
Scale B - Student Interaction and Collaboration	2.3	.71
Scale C - Personal Relevance	3.3	.04
Scale D - Authentic Learning	3.0	.38
Scale E - Autonomy	3.4	.08
Scale F - Student Satisfaction Items	3.5	.05

*SD-standard deviation

Table 3 shows that the means between scales are similar and high, since 4 is the maximum score possible, particularly scales E and F. Scale B is the one with the lowest average score.

3.2. Specific level

Table 4 shows the results for each item in Scale A – Professor support in virtual class.

Table 4. Scale A – Professor Support in virtual class

Items	Mean	SD
If I have a question the teacher finds time to respond	3.1	.54
The teacher helps me to identify the problem areas in my study	2.8	.65
The teacher responds promptly to my messages	3.1	.52
The teacher makes useful comments regarding my evaluation	3.1	.55
The teacher responds satisfactorily to my messages	3.1	.55
The teacher encourages me to participate	3.1	.61
It is easy to contact the teacher	3.0	.55
The teacher gives me positive and negative comments about my class work.	3.1	.84

Students' answers to these scale show that they felt supported in their course. In general, it appears like the Professors' support was efficient.

Table 5. Scale B - Student Interaction and Collaboration

Items	Mean	SD
I worked with other students in the online class.	2.3	.59
I compared my work to other online student's work.	2.1	.69
I shared information with other online students	2.5	.70
I discussed my ideas with other online students.	2.3	.59
I collaborated with other students in the online class.	2.3	.53
Group work was part of my online class activity.	2.1	.53

Table 5 shows scale B. In general, the items in scale had lower scores compared with the remaining scales. It is possible that the students in our research are more likely to study by themselves, using

collaborative and group work less frequently. The item with the highest score in this scale regards information sharing between students.

Table 6. Scale C - Personal Relevance

Items	Mean	SD
I can relate what I learned online to my life outside of school.	3.4	.54
I was able to pursue topics that interest me in my online class.	3.2	.47
I could connect my online studies to my activities outside of the online class.	3.2	.54
I could apply my everyday experience in the online class.	3.2	.58
I linked online class work to my life outside of school.	3.4	.50
I was able to apply my out-of-class experiences to my online class.	3.2	.51

Table 6 shows that students consider their learning relevant and relatable with their daily life.

Table 7. Scale D - Authentic Learning

Items	Mean	SD
I was given the opportunity to study real situations in my online class.	2.8	.52
I was able to use real facts in online class activities.	3.0	.45
I had assignments in my online class that dealt with real-world situations.	3.0	.41
My online class used examples that were real.	3.0	.41
My online class topics of study are part of the real world.	3.2	.76

Table 7 reinforces the results obtained in Scale C. Students seem to be using real situations to help them study different thematics on their course.

Table 8. Scale E - Autonomy

Items	Mean	SD
I was able to make my own decisions about my online learning.	3.5	.51
I did work for my online class during times that were convenient.	3.2	.67
I found that I was in control of my online learning.	3.3	.53
I have approached online learning in my own way.	3.5	.51

Table 8 shows students' feelings regarding virtual learning environments. This scale obtains some of the highest scores. Students feel more autonomy in online learning to make decisions about their learning processes, managing it and taking a more personalised approach.

Table 9. Scale F - Student Satisfaction

Items	Mean	SD
Online learning is interesting.	3.6	.50
I prefer online education.	3.4	.56
Online learning is exciting.	3.3	.61
I enjoyed online learning.	3.7	.48
Online learning was worth my time.	3.6	.50
I look forward to other online experiences.	3.3	.59
I would enjoy my education if all my classes were online.	3.4	.55
I was satisfied with this online class.	3.4	.55

Table 9 describes students' satisfaction with online learning. The scores are high and students seem to believe that online learning is interesting, it is time effective and they have an interest in continue using this type of environment.

4. Conclusions

Our main goal in this research was to understand students' perceptions of an online learning environment where they study. This study used 36 online students' undertaking a course about Education. The results are not generalizable to other students' or settings and need to be replicated in the future.

The scale with the lowest scores overall and by item was related to student interaction. These could be due to the fact that online students' study in a more independent way (their autonomy scale results had high scores which corroborates our theory), using collaborative work more scarcely.

The scores obtained in the scales *Professor Support in virtual class* and *Student Interaction and Collaboration* might be a reflection of the characteristics of the pedagogic model applied in the institution where the course is led.

It is important, from a course design perspective, to propose activities that help develop collaborative work between students, in order to help them feel less isolated.

It is important that such activities reflect topics and situations based in real life. It should be kept in mind that these are *adult students and therefore adults are motivated to learn as they experience needs and interests that learning will satisfy; therefore, these are the appropriate starting points for organizing adult learning activities* [9]. It is also important to keep reinforcing their autonomy, where selfregulation plays an important role, to ensure their success.

In the future, it would be useful to understand the factors associated with students' satisfaction and to compare these results between students' that drop-out and those who don't.

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