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Cognition, Motivation and Emotion: Dynamics in the Academic Environment

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COGNITION, MOTIVATION AND EMOTION: DYNAMICS IN THE ACADEMIC ENVIRONMENT

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ACADEMIC EXPECTATION'S OF FIRST-YEAR COLLEGE STUDENTS: RESULTS BY SOME SOCIO-DEMOGRAPHIC VARIABLES

ATTENTES UNIVERSITAIRES DES ÉTUDIANTS DE PREMIÈRE ANNÉE: RÉSULTATS EN FONCTION DE QUELQUES VARIABLES SÓCIO-DEMOGRAPHIQUES

Leandro S. Almeida, Ana Paula Soares, Rosa Vasconcelos, Carolina Machado & Natércia Morais |

ABSTRACT

As part of an investigation project "Transition, Adaptation and Academic Success of Students in Higher Education", financed by the Fundação Calouste Gulbenkian (Program of Support of Projects in the Educational Research Domain - 2001), and having these ideas in mind, we have evaluated 1st year students' expectations (n=1923). At the beginning of the school year (during registration in the University), the students answered the Academic Involvement Questionnaire (expectations form) (AIQ; Soares & Almeida, 2001). The AIQ assesses students' involvement expectations in five dimensions: institutional involvement, vocational involvement, social involvement, resources use and curricular involvement. Although the results showed a quite positive global pattern of student's academic involvement expectations (particularly high in the curricular and vocational involvement dimensions), it was possible to verify that female students showed a higher pattern of expectations, especially in vocational and curricular domains. This situation, in terms of its psychological and educational meaning, can put the female students in a more favourable position to achieve higher levels of academic adjustment and success.

Key words: gender differences, academic adjustment and success, academic involvement questionnaire

RÉSUMÉ

Dans un projet de recherche financée para la Fondation Calouste Gulbenkian, nous avons évalué les expectatives d´engagement académique des étudiants (ce qu´ils pensent trouver ou faire à la Université) qui sont arrivés à la Université de Minho (Braga, Portugal). L´étude considère 1923 étudiants qui sont ingressés au premier année de 45 différents graduations de cette Université et qui ont répondu, au début de l´année scolaire, au Questionnaire d´ Engagement Académique (QEA – Version A : expectatives ; Soares & Almeida, 2001). Cet questionnaire considère les expectatives des étudiants en cinq dimensions: engagement institutionnel, engagement vocationnelle, engagement social, utilisation des ressources de l´université, et engagement curriculaire. Malgré les donnés montrent un type général d´expectatives d´ engagement académique bien positive, notamment dans les dimensions curriculaire et vocationnelle, nous avons trouvé que les filles présent expectatives d´ engagement plus hautes, par exemple dans ces deux dimensions. Ces résultats peuvent signifier que les étudiants de sexe féminin sont dans une situation plus favorable pour arriver aux niveaux plus satisfaisants d´ajustement et de réussit académique.

Mots clés: différences selon les sexes, adaptation et réussite universitaire, questionnaire d'engagement universitaire

INTRODUCTION

During the last decades, Portugal has had a Higher Education quantitative expansion, both in terms of the number of public and private institutions/courses degrees, as in terms of students population (Eurydice, 2000; ME-DGES, 1999; OECD, 2001). Usually found in developed countries, this expansion results into a greater social and age diversification of students, which increases the number of different school trajectories, vocational projects and motivations/representations (Braga da Cruz et al., 1995; Gago et al., 1995; Soares, 1999).

This quantitative change was accompanied by qualitative nature changes (Almeida, Soares & Ferreira, 2000, 2001; Balsa et al., 2001; Braga da Cruz et al.,1995; Conceição et al., 1998; Ferreira, Almeida & Soares, 2001), which justifies our present interest in students expectations when they are admitted into Higher Education. It also justifies the study of the impact those expectations have on the student's adaptation process to the university context (Soares & Almeida, 2001). According to literature in this area, expectations may affect the level of commitment as well as the cognitive and behavioural investment in which students are willing to engage. This affects the quality of adaptation and the academic performance (Baker & Schultz, 1992a b; Baker, McNeil & Siryk, 1985; Biggs & Moore, 1983; Jackson, Pancer, Pratt & Hunsberger, 2000; Soares & Almeida, 2001), justifying a greater attention from institutions.

As part of an investigation project "Transition, Adaptation and Academic Success of

Students in Higher Education", financed by the Fundação Calouste Gulbenkian (Program of Support of Projects in the Educational Research Domain - 2001), and having these ideas in mind, we have evaluated 1st year students' expectations, in order to analyse how those expectations differ according to some variables (for example: gender; schooling choices and residential situation).

METHOD

SAMPLE

A total of 1923 first-year students from University of Minho's (UM) 45 courses participated in this research. Notice that this sample represents about 70% of the student's population, which, in the academic year of 2001-02, have been registered to this institution (N=2741). The majority was of female gender (59.5%), between 17 and 57 years old (M=19.03; Sd=3.68). For more than half of the students in this sample, attending Higher Education meant leaving their homes (at least from Monday to Friday, per week). Most of them came from medium social class, and the majority of parents only had the 9th grade. Notice still, that 65% of students attend their first choice course. Also, 76% of students referred that they were attending the University of their choice: University of Minho. Table I describes the sample by gender and groups of studies. The 45 courses frequented by students in the sample were organized in seven areas of studies.

Table I – Sample by gender and groups of courses

Courses Council	Male	Female
Economic, Business and Politic Sciences (n=323)	18.9%	19.3%
Education and Psychology (n=163)	3.2%	13.8%
Kindergarten and Primary Teacher's Education (n=67)	3%	6.6%
Social Sciences (n=146)	6.8%	11.2%
Sciences (n=366)	21.6%	22.4%
Languages and Humanities (n=132)	3%	11.7%
Engineering (n=393)	46.3%	14.9%

INSTRUMENT

The students' academic involvement expectations were evaluated through the Academic Involvement Questionnaire (AIQ; Soares & Almeida, 2001). This self-report questionnaire seeks to evaluate what first-year college students expect to find/do in the Higher Education institution where they have just been admitted (A form). Composed by 34 items in a four likert format (1 - never or hardly ever; 2 - a few times; 3 - quite often; and 4 - always or almost every time); the AIQ is based in a complex conceptualisation of students' academic involvement, which includes cognitive, motivational and behaviour components. The AIQ assesses students' involvement expectations in five dimensions: (i) institutional involvement; (ii) vocational involvement; (iii) social involvement; (iv) resources use; (v) and curricular involvement. Table II describes the five dimensions of the AIQ, indicating the number of items and their respective alpha coefficient.

Table II – Description of AIQ's dimensions (Soares & Almeida, 2001)

DIMENSIONS		ITEMS	ALPHA
Institutional involvement	defines the student's expectations concerning the types of institutional supports they hope to receive in the Higher Education institution they attend (support services, teachers...), as well as their expectations of institutional involvement and investment	12	.91
Vocational involvement	defines the student's expectations in terms of achievements and the development of their goals and vocational plans	8	.85
Social involvement	defines the student's expectations regarding the type and quality of interpersonal relations with their peers and the establishment of more intimate relations.	6	.76
Resources use	defines the student's expectations regarding the existence and use of available resources in *campus* for the accomplishment of academic activities.	6	.78
Curricular involvement	defines the student's expectations regarding their investment in learning and in the education opportunities inherent to the chosen course.	6	.76

Higher expectations values indicate students' intentions of greater involvement in the different aspects of academic life (institution, career project, peers, available resources and course/degree); while lower scores indicate intentions of less involvement. However, students get a score for each one of the five considered areas obtaining a distinct pattern of expectations according to the analyzed dimension. For instance: a student can present higher expectations of social and institutional involvement, higher expectations of the use of available resources and lower expectations of investment in his career project and in his course. The studies of construction and validation, which were carried out, reveal that the AIQ presents satisfactory psychometric qualities, whether it refers to its dimensionality or to the values of internal consistency (cf. Soares & Almeida, 2001). Additionally to the AIQ, we have used an Identification Form, built specifically for this research, which intended to identify students' social-demographic characteristics (gender, age), their basic and secondary schooling background (high school course and classifications) and present situation (university and degree-course options of entrance, reasons for applying to the University of Minho and kinds of anticipated problems in its attendance).

PROCEDURES

The AIQ was applied during the students' registration in the University, allowing the observation of almost every student, who was admitted into the University of Minho in the 1st phase of the National Contest of Access to the Higher Education in Portugal in the academic year 2001-02. The students were informed about the objectives of this research and were assured about the data confidentiality (their identification was required, given the necessity to cross-tabulate that data with subsequent information concerning their academic adaptation and scholar achievement). All the students in the sample were voluntary. There wasn't any kind of financial compensation for the participation in this study.

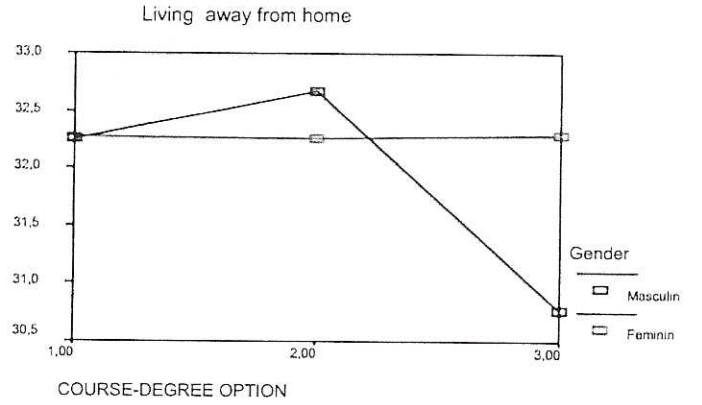
RESULTS

The relationship between the students' involvement expectations and socio-demographic variables was explored using multivariate analyses (MANOVA), available in SPSS program (version 11.0 for Windows).
Table III presents the results in the five dimensions of the AIQ (Form A) considering the students by gender, place of residence (whether they are, or not, living away from home) and course-degrees options they are attending (first, second, third or more options).

Table III - Results in the AIQ by gender, residential situation and course-degree options

Dimensions QEA		Institutional		Vocational		Interpersonal		Resources		Courses	
		Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd
Global Sample		31.92	5.62	26.28	3.09	19.01	2.59	18.29	2.613	19.45	2.43
Gender	Masculine	31.5	6.08	25.7	3.36	18.8	2.74	18.4	2.77	18.7	2.66
	Feminine	32.2	5.30	26.6	2.86	19.1	2.49	18.2	2.51	19.9	2.13
Residential situation	Living without parents	32.2	5.68	26.4	3.00	19.2	2.48	18.5	2.55	19.7	2.31
	Living with parents	31.3	5.41	26.1	3.22	18.8	2.70	18.0	2.64	19.1	2.50
Course option	1st option	31.9	5.66	26.2	3.90	18.9	2.58	18.3	2.59	19.4	2.48
	2nd option	32.0	5.42	26.3	3.10	19.1	2.77	18.4	2.68	19.4	2.36
	3rd or + option	31.9	5.68	26.5	3.10	19.2	2.42	18.3	2.63	19.6	2.28

As we can see in Table III, and using the medium point, in each of the dimensions in the AIQ, as a reference (30, 20 and 15 points regarding, respectively, the first, second and remaining AIQ sub-scales), the students showed a quite positive pattern of involvement expectations. This situation, by itself, can reveal good indicators of students' adjustment process into university context. Although, this positive pattern of results was found, it was possible to verify some differences related to the academic (course-degree option) and socio-demographic (gender and residential situation) variables considered in this study. For example, female students present a higher average in most of the evaluated dimensions (institutional, vocational, social and curricular), with the exception of those referring to the existence and use of resources available in campus (resource use), in which male students present slightly greater means. These differences, although small in numerical terms, reveal to be, in some cases, statistically significant. In the institutional involvement dimension we found a significant interaction effect of gender x residential situation x course- degree option ($F=4.098$; $df=2$; $p<.05$). Figure 1a and b present separately the results considering students who were living away from home.



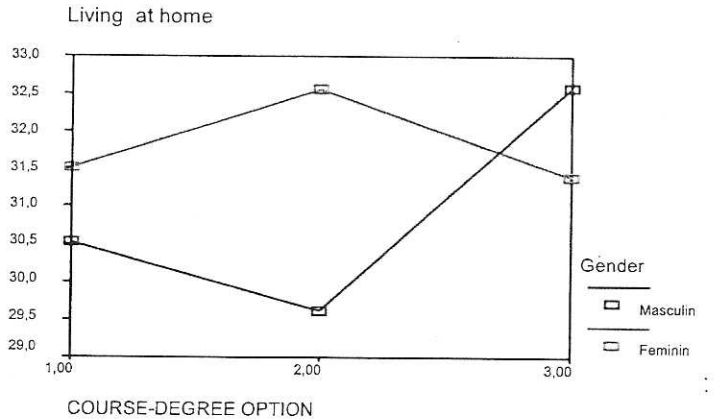


Figure 1a,b - Gender x course-degree option x residential situation interaction effect on institutional dimension

As we can see, where female students showed small mean differences when we considered their course-degree options and residential situation (values between 31.5 and 32.5), male students are more differentiated on these two variables (values between 30.7 and 32.7 considering course-degree options and the students who were living without parents; and values between 29.7 and 32.5 considering course-degree options and students who were living with their parents). Male students who were living without parents and attended a third course-degree option showed lower involvement expectations on institutional dimension. Male students who were living with their parents and attended a third course-degree option present higher expectations than their colleagues attending a first or second course-degree option.

On the other hand, a significant interaction effect on the vocational dimension of AIQ was also found, registering a significant interaction effect between gender and course-degree options ($F=3.196$; $df=2$; $p<.05$). Figure 2 shows this interaction effect.

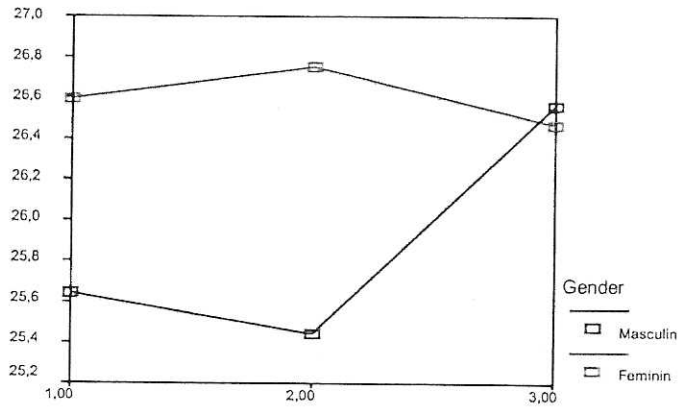


Figure 2 – Gender x course-degree option interaction effect on vocational dimension

Concerning the fulfilment and development of their goals and vocational plans female students showed higher expectations. These differences were especially evident when considering students attending a first or a second course-degree option. No differences were found when we considered students attending a third course-degree option.

Considering the other dimensions of AIQ, a significant gender effect on the resource use sub-scale ($F=4.586$; $df=1$; $p<.05$) was found, as well as in the curricular sub-scale ($F=54.589$; $df=1$; $p<.001$).

Female students showed particularly significant higher expectations on curricular dimension, while male students showed higher expectations on resources dimension.

CONCLUSIONS

Analysing the results of the Academic Involvement Questionnaire (Form A - Soares & Almeida, 2001), in its five dimensions (institutional, vocational, social, resources and curricular), the results suggest that, when focusing on the medium point in each sub-scale, the students arrive to Higher Education with a quite positive pattern of involvement expectations. On the other hand, analyzing the results according to some students' academic (course-degree options) and socio-demographic characteristics (gender and residential situation), the analysis suggests that female students showed a higher level of involvement expectations. These differences favourable to female students seem to be more expressive concerning institutional, vocational and curricular dimensions of AIQ (in the first and second ones an interaction effect was registered). Despite the small differences registered, male students showed higher involvement expectations in the resource use dimension of AIQ.

Students who were living away from home and who attended a first or second course-degree option also showed a higher pattern of involvement expectations, on the institutional dimension of AIQ. Finally, no differences in the patterns in students' involvement expectations were found, according to the course-degree order of choice (except a secondary effect on the institutional and vocational dimensions). These results were unexpected, especially in what relates to the curricular variables. It would be expected that students attending their first option course-degree, would be more committed to their course, showing higher curricular involvement expectations. It also would be reasonable to expect that students attending a third option course-degree might want to be transferred to a first course-degree option as soon as possible. These results might also mean that the course-degree order of choice (first, second or third), is not a strong differentiator of college involvement expectations to some students. This situation could also be affected by the time of year when the data was collected (during the registration process at university).

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