Chapter 4

LEVELS OF ADJUSTMENT TO COLLEGE, GENDER AND ACADEMIC ACHIEVEMENT IN FIRST-YEAR SPANISH STUDENTS

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ABSTRACT

The documented difficulties that emerging adults experience during the transition to university, combined with the changing needs at this stage of life, have brought increased international attention to the adjustment of first-year university students and their academic achievements. However, surprisingly few studies have addressed this relationship in first-year students in Spain. The present study explores the relationships between levels of adjustment, gender and academic achievement in a sample of 300 first-year university students in Spain. The Student Adaptation to College Questionnaire (SACQ) was administered to assess adjustment. Multivariate analysis revealed that students with lower levels of academic and institutional adjustment to college achieved less well academically than students with intermediate and higher levels of adjustment. The students’ average grade prior to starting university was entered in the analysis as a covariate. Gender had no significant effect on first-year academic achievement. Academic adjustment is the dimension that best explains academic achievement in females and males. Nevertheless, female and male students differed with respect to the effects of adjustment on their academic achievement; no significant effect was observed for institutional adjustment in male students. Theoretical and practical implications for the study of students’ adjustment to university and academic performance are discussed.

Keywords: SACQ, academic adjustment, institutional adjustment, first-year students, emerging adults, gender.

1. INTRODUCTION

Adjusting to university is a major transition in emerging adulthood (Arnett, 2000). Baker and Siryk (1984) have provided one of the most widely studied models of adjustment, describing adaptation as including academic, social, personal-emotional and institutional dimensions. According to recent data, these factors favour certain conflicts in the development and formation of emerging adults. During the first year at university, students are often confronted with a variety of new demands and challenges, and they may experience difficulties in developing a vocational identity in which processes of decision making, exploration and commitment are particularly important (Astin, 1993; Chickering & Reisser, 1993; Tinto, 1993). Such difficulties lead to a feeling of dissatisfaction and disengagement from university life, finally causing students to question their choice of study, to fail academically or to leave university (Abdullah, Elias, Mahyuddin, & Uli, 2009; Wintre, Bowers, Gordiner, & Lange 2006). Analysis of the most recent edition of the Education at a Glance report (Organisation for Economic Co-operation and Development [OECD], 2011) has shown that in Spain more than 50% of students fail to complete university, and that much of this attrition (approximately 26%) occurs in the first year.
In this regard, Spain occupies one of the worst positions within the European Union. However, surprisingly few studies have examined this relationship in first-year students in Spain, relative to the number of studies carried out in other Mediterranean and European countries or other Spanish speaking countries.

1.1. Changes in higher education in Spain

The Higher Education System in Spain has undergone some important changes in recent decades. Access to higher education has been widened by the democratization of Spanish society, economic and technological growth, and the lengthening of the period of obligatory schooling, amongst other factors. These factors have led to the student population becoming somewhat large and diverse, which has affected the quality of teaching. In contrast to a few decades ago, students in higher education institutions come from a wider range of social backgrounds. The proportion of female students is also higher and the students are more diverse in terms of academic careers, cognitive abilities, knowledge bases, motivation and expectations. In addition, with the implementation of the measures associated with the Bologna Process in all countries in the European Union, the student role has become the focal point of the learning process, which demands increased levels of motivation, autonomy and self-regulation as well as greater responsibility for the educational trajectory by the students themselves. However, as higher education institutions have not given sufficient attention to this new reality, the greater democratization of the access has not been accompanied by greater academic success.

These considerations are particularly relevant in the context of the demands placed on Spanish Universities to adapt to the European Higher Education Area (EHEA). Thus, Spanish universities are required to recognise and respond to students’ needs, respond to the needs of the labour market, assert themselves on the teaching job sector, increase the efficiency of Higher Education institutions and contribute to social mobility. The demands are aimed at making European educational and training systems world leaders in terms of quality.

Most Spanish students who access higher education are aged between 18 to 25 years old, financially dependent on their parents or other family structures and are free of obligations such as a full-time job, a mortgage loan, marriage or children. In Spain, the transition to adulthood is characterized by a prolonged stay in the family home. After Portugal and Italy, Spain is one of the countries where young people live in the parental home for longest. The Mediterranean pattern of transition is defined by prolonged stay in the parental home, an increasing rate of enrolment in higher education, delayed entry into the workforce and older marriage age (Fierro & Moreno 2007; Instituto de Juventud España, 2012). These social changes have led to a delay in the attainment of adult status (Del Barrio, Moreno, & Linaza 2006).

1.2. Changes in emerging adulthood in Spain

Spanish young university students experience a prolonged period of emerging adulthood that may significantly impact the quality of their adjustment to adulthood. Developmental outcomes of this stage of life will have significant effects on how young people adjust to adulthood. Originally considered as a time for the acquisition of adult responsibilities and roles, this developmental period now resembles adulthood in regard to social experiences, mainly through participation in university life, but does not entail the active exercise of adult duties. Thus, young people (between 18 and 25 years old) attending university face an important challenge: to combine the exploration and lack of definition that are proper of adolescents with characteristics demanded of independent adults (i.e. that
they are active, independent, able to use strategies, reflective and self-regulated), in an unknown and highly competitive environment that requires new behavioural, cognitive and affective patterns of responses.

Students may regard their time at university as an opportunity to engage in exploration and risk-taking behaviour before they are adults and have adult responsibilities (Dworkin, 2005; Ravert, 2009). University is therefore a time for making friends and establishing romantic relationships, engaging in frequent social gatherings, exploring new places, growing intellectually and affirming personality through self-expression (Buote et al., 2007; Cutrona, 1989; Hays & Oxley 1986; Schwartz, Côté, & Arnett, 2005; Swenson, Nordstrom, & Hiester, 2008). Such experiences should aid students to move toward autonomy and emotional independence, as well as achieving a sense of competence, managing emotions, interacting with others with increasing tolerance, developing a sense of purpose, and clarifying a personal and consistent set of beliefs (Chickering & Reisser, 1993).

However, not all emerging adults are able to master these developmental tasks and have a satisfactory experience in higher education. Over half of all college students will experience some type of difficulty in their transition to college (Buote et al., 2007), including academic problems (Wintre et al., 2006), emotional disorders or symptomatology, such as isolation, stress and depression (Cutrona, 1989; Ozen, Erkan, Irgil, & Sigirli, 2010; Torrente-Hernandez & Vazsonyi, 2012), relationship struggles with parents or friends (Hoffman & Weiss, 1987; Wintre & Yaffe, 2000), and alcohol or other substance use (Caamaño-Isorna, Corral, Parada, & Cadaveira, 2008). In this sense, the first year experience is critical in terms of adjustment.

1.3. Adjustment and academic achievement to university

The documented difficulties that students experience during the transition to university, combined with the changing needs of students, have brought increased attention to the academic adjustment of first-year university students and interest in improving graduation rates. The poor academic yield, the excessive amount of time invested in degree studies and student attrition are common problems in all European Union countries (OECD, 2011). It has been suggested that students often drop out of university for personal reasons, including failure to adjust to university life (Toews & Yazedjian, 2007).

Adjustment to university is multifaceted and involves an array of demands, which vary in kind and degree and require a variety of coping strategies or adjustments (Baker & Siryk, 1984, 1986, 1987). The important dimensions of adjustment to university considered in this study include the academic, social and personal-emotional adjustment of students, as well as institutional attachment (Baker & Siryk, 1987). Academic adjustment includes how well students deal with educational demands, such as motivation to complete academic requirements, academic effort and satisfaction with the academic environment. Social adjustment includes success in coping with the interpersonal-societal demands inherent in university life. Personal-emotional adjustment involves the psychological state of students and the extent to which they are experiencing general psychological distress. Institutional attachment describes students’ satisfaction with the university experience in general and the quality of the relationship between the student and the institution. Thus, adjustment can be seen as a condition or state in which the students feel that their needs have been fulfilled and that their behaviour conforms to the needs of the environment (Salami, 2011).

Studies have demonstrated that adjustment among first year undergraduates has a strong impact on their academic achievement in the universities where the students are
enrolled (Baker & Siryk, 1987; Martin, Swartz-Kulstad, & Madson, 1999; Sennett, Finchilescu, Gibson, & Strauss, 2003; Wintre & Yaffe, 2000). In a study conducted in a local public university in Malaysia, Abdullah and colleagues (2009) found that the best predictor of students’ achievement was academic adjustment; however, there was no significant relationship between academic achievement and student social adjustment or students’ attachment to university (Abdullah et al., 2009, p. 501). It has been suggested that transition to university involves movement to a larger, more impersonal structure and increased focus on achievement and its assessment (Azar & Reshadatjoo, 2014; Wintre & Yaffe, 2000).

1.4. Gender differences in academic achievement

A great deal of research has been dedicated to determining how gender differences affect university students’ ability to succeed in higher education. Studies exploring the relationship between gender and student’s academic achievement to university have produced mixed results. Some studies have found that females outperform their male counterparts in higher education (Lawrence, Ashford, & Dent, 2006). Hyde and Kling (2001) state this to be the case irrespective of the measure of success used. Similarly, Betts and Morell (1999) report that sex remains a significant predictor of CGPA after controlling for various individual attributes such as ethnic background, pre-university grades and school attended. However, others studies, mainly conducted outside of the US have found that females can perform at levels equal to males (Mayo & Christenfeld, 1999; Naderi, Abdullah, Aizan, Sharir, & Kumar, 2009; Nori, 2002; Soares, Guisande, Almeida, & Páramo, 2009) but that higher pre-university grades in women should not be overestimated and are not necessarily predictive of applicants’ subsequent college-level performance (Naderi et al., 2009; Soares et al., 2009).

The framework for a conceptual explanation of the variation mentioned for gender and academic achievement need to be explained in the context in which they occur and gender is, therefore, considered as a variable in this study.

2. OBJECTIVES

The aims of the present study were as follows: 1) To determine the relationship between students’ level of adjustment and their academic achievement in first-year university students, and 2) To examine gender differences in this relationship, for all dimensions of adjustment.

3. DESIGN

The design for this study included gender and levels of adjustment to college as independent variables and is first-year academic achievement as a continuous dependent variable. Pre-university grade was also a continuous variable (covariate). ANCOVA analysis was used to test the main and interaction effects of categorical variables (gender and levels of adjustment) on the academic achievement while controlling for the effect of pre-university grades. As no significant main effects for gender nor a significant interaction were found, a separate ANCOVA for gender was conducted to test the main effects of levels of adjustment on academic achievement while controlling for the effects of pre-university grade.
Levels of adjustment to college, gender and academic achievement in first-year Spanish students

4. METHOD

4.1. Participants
The participants for this study were 300 first year students who were drawn at random from 16 EHEA undergraduate degree courses within the five areas of study offered at the University of Santiago de Compostela (Sciences, Social Sciences and Law, Humanities, Health Sciences and Engineering). All of the students were selected from a larger sample, by applying the following academic and family-related criteria: first-time, first-year attendance at university undertaking full-time courses (60 credits), age less than or equal to 21 years, undertaking courses that were their first or second choices, single, and not employed (i.e., they were economically dependent on their parents).

The sample included 198 females and 102 males, which is consistent with the gender distribution of students in the university. The average age of the participants was 18.02 years (∆D= 0.52). Most students (91%) came from intact families, and 75.7% were relocated from their parents’ house.

4.2. Procedure
The participants completed a questionnaire that included a survey on personal and family data and one scale of adjustment, namely the Student Adaptation to College Questionnaire (SACQ, Baker & Siryk, 1984). The initial contact by e-mail informed teachers in different faculties of the University of Santiago de Compostela about the objectives of the study. Data were collected by two members of the research team in several classes during the first semester of the courses, with the prior consent of students and teachers, according to the deontological code of the Official School of Psychology. Students were informed about the purpose of the study and completed the questionnaires voluntarily and anonymously; assessments lasted approximately 30 min.

4.3. Instruments
The adjustment measure used was the Spanish version of the Student Adaptation to College Questionnaire (SACQ, Baker & Siryk, 1984). The SACQ consists of 67 nine-point Likert items that assess the quality of students’ adjustment to college/university on the basis of a multifaceted concept of this process. Along with a global score for adaptation, the SACQ includes four subscales: academic adjustment, social adjustment, personal/emotional adjustment and general institutional attachment. The internal consistency of the Spanish version is .94 for the total score of SACQ, .90 for academic adjustment, .85 for social adjustment, .89 for personal-emotional adjustment and .84 for institutional adjustment (Rodríguez-González, Tinajero-Vacas, Guisande-Couñago, & Páramo-Fernández, 2012).

The students’ academic achievement at university and the pre-university grades were supplied by the Academic Management Services of the University of Santiago de Compostela (range 0 to 10).

5. RESULTS
Table 1 provides descriptive information about the variables of this study. Spanish students obtained higher scores on institutional attachment (7.51) and social adjustment (6.71) than academic and personal-emotional adjustment. The mean of overall adjustment was 6.34. In the achievement variables, the students were admitted to university with a mean grade of 7.09 and finish their first year with a mean grade of 6.01.
Significant correlations were found between adjustment dimensions and achievement. All dimensions of the adjustment are significantly related to achievement (both the grade on entry and the grade at the end of the 1st year) except for personal adjustment (.49). In general, students with higher entry grades adapt better (academically, socially and institutionally) and their first year academic achievement is higher. The entry grade is more closely related to first-year academic achievement (.656) than to overall adjustment (.268).

Table 1. Means, standard deviations for adjustment dimensions, academic achievement and inter-correlation.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Pre-university grade</th>
<th>First-year Academic achievement</th>
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</thead>
<tbody>
<tr>
<td>Academic adjustment</td>
<td>5.80</td>
<td>1.17</td>
<td>.341**</td>
<td>.490**</td>
</tr>
<tr>
<td>Social adjustment</td>
<td>6.71</td>
<td>.98</td>
<td>.227**</td>
<td>.191**</td>
</tr>
<tr>
<td>Personal-Emotional adjustment</td>
<td>5.97</td>
<td>1.49</td>
<td>.062</td>
<td>.074</td>
</tr>
<tr>
<td>Institutional attachment</td>
<td>7.51</td>
<td>1.03</td>
<td>.221**</td>
<td>.296**</td>
</tr>
<tr>
<td>Overall adjustment</td>
<td>7.30</td>
<td>1.09</td>
<td>.268**</td>
<td>.346**</td>
</tr>
<tr>
<td>Pre-university grades</td>
<td>7.09</td>
<td>1.11</td>
<td></td>
<td>.656**</td>
</tr>
<tr>
<td>First-year academic achievement</td>
<td>6.01</td>
<td>1.55</td>
<td></td>
<td></td>
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</tbody>
</table>

Although females perform better on pre-university grade (7.21 vs. 6.85, t=2.69, p=.007) than males (6.12 vs. 5.80), gender did not have a significant effect on first-year academic achievement (t=.78, p>.05). Interaction between levels of adjustment and gender were also explored and found to be not significant.

A separate analysis for gender was conducted to test the main effects of levels of adjustment on academic achievement. Pre-university grade was included as a covariate because it was significantly correlated with first-year academic achievement. For this analysis, the SACQ scores were divided into three categories (low, moderate, and high). The ANCOVA results are summarized in Table 2.

Table 2. Mean Scores in academic achievement for levels of adjustment, F-values, significance levels and effect size.

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>Covariate</th>
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<tr>
<td></td>
<td>Low</td>
<td>Moderate</td>
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<tr>
<td>Academic Adjustment</td>
<td>Males</td>
<td>5.09</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>5.11</td>
</tr>
<tr>
<td>Social Adjustment</td>
<td>Males</td>
<td>5.67</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>5.70</td>
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<tr>
<td>Personal-Emotional Adjustment</td>
<td>Males</td>
<td>5.78</td>
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<tr>
<td></td>
<td>Females</td>
<td>5.94</td>
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<tr>
<td>Institutional Attachment</td>
<td>Males</td>
<td>5.67</td>
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<tr>
<td></td>
<td>Females</td>
<td>5.34</td>
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</table>
Levels of adjustment to college, gender and academic achievement in first-year Spanish students

Level of academic adjustment had significant effects on academic achievement in males (F=5.08, p=.008) and females (F=18.37, p<.001). Eta values indicate that the effect size was .094 in males and .159 in females. Follow-up pairwise comparisons showed that students with lower levels of academic adjustment to university obtained lower grades than students with moderate and higher levels of adjustment. The effect of levels of institutional attachment was only observed in female students (F=5.69, p=.004) in the same way as academic adjustment. No significant effect was observed in the male students (F=.80, p=.449). Levels of social and personal-emotional adjustment did not have any influence on academic achievement. The effect of the covariate -pre-university grades- was significant in all dimensions of adjustment (p<.001), derived from the strong association between pre-university grades and first-year academic achievement. In females, pre-university grades explained more than 40% of academic achievement and in males more than 30%.

6. FUTURE RESEARCH DIRECTIONS

Assessing the mechanisms through which adjustment influences first-year academic achievement is important because numerous variables may intervene in the process and if not detected, this would lead to erroneous conclusions regarding direct effects.

Although not all findings need to be replicated across cultures, it is advisable to do so when cultural contingencies raise doubts about whether findings from important initial studies are generalizable. Spanish higher education practices differ from those in other countries in several notable ways: admission standards, patterns of socialization and reinforcement of gender differentials skills, and the socio-economic and professional student population. Understanding how the same factors can both help and hinder students as they adjust to college is useful to university personnel in developing, implementing, and evaluating activities and services aimed at facilitating students’ academic performance. Developing a preventive approach involves taking into consideration that intervention by the educational institution should be made before the student reaches the stage of academic failure. This implies that a preventive approach on the part of the university should, on the one hand, identify students at risk of academic failure, and on the other hand, develop student guidance services that will help students improve their study habits and techniques, as well as attitudes of responsibility, effort and self-regulation.

7. CONCLUSION/DISCUSSION

In this study, some factors associated with student academic achievement appeared to be consistent across institutions and countries; however, there were considerable differences between our findings and those of other studies. The discrepancies may be derived from differences in cultural and educational backgrounds. Multivariate analysis revealed the following:

- Higher levels of academic adjustment had a significant (and positive) impact on academic achievement.
- Gender had no significant effect on first-year academic achievement.
- Female and male students differed with respect to the effects of adjustment on academic achievement.
- Institutional adjustment did not have a significant effect on academic achievement in male students.

Our results clearly illustrate a strong relationship between academic adjustment and academic achievement. Poor adjustment to university has many implications for students.
The development of academic predictors of academic success is a critical issue for educators. This is particularly relevant in the first year as research-based evidence suggests that there is a positive relationship between student academic performance and student retention rate. Enhancing student performance in the first year and increasing retention rates should be important priorities for universities, with focus on support, especially for students at risk. Students do not always seek help while trying to adjust to the demands of university life or when they have academic difficulties and may only seek assistance at a late stage.

REFERENCES


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