Psychosocial Profile of Unsuccessful University Student: Personality and Motivational Factors Revisited

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Abstract

Unlike intellectual tradition in the research of individual academic determinants of success, the present article underlines the complex impact of personality (five-factor model) and motivational factors on academic performance. We first draw a meta-analysis on the literature concerning the issue, followed in each section by a detailed presentation of our latest findings using Spanish university samples. The psychosocial profile of Spanish unsuccessful students at university can be described in term of extrovert, neurotic, low motivated and conscientiousness, weakly self-esteemed, and high cognitive test anxious.

Secondly, an integrated theoretical model of the influence of these dimensions is also presented. In doing so, vocational and work psychology theories on person-job adjustment are pointed out. Finally, we address certain educational orientations towards students, teachers, and parents that can be derived from our analysis in order to contribute to the reduction of university student’s dropout rates.

Overall results of this meta-analysis indicate that social relationship problems related to negative cognition on failing in social environment are on the psychosocial basis of unsuccessful university students.

Key-words: non-intellectual variables, academic success, university failure, psychosocial profile, person-job adjustment.
Introduction

Predictions on academic success have been traditionally linked to intellectual and mental aptitudes (González Tirados, 1986; González-Pienda, 1996). However, many studies have commonly stated that these factors only account for the 30% up to no more than the 50% of the total variance of academic performance (Butcher, 1979; Martín Cabrera, García García & Hernández Hernández, 1999). According to Latiesa (1992), the prediction power of intelligence totally decreases at the same time as we reach university levels. Consequently, unsuccessful university students compare to their partners showed high but not different intelligence rates in Marín Sánchez, Infante and Troyano’s (2000, 2001) surveys. The relationship between academic success and intelligence has to do with the presence of modulated variables such as motivational and academic related values and interests (Pelechano, 1976).

In terms of academic success, personality would appear to play a greater role than intelligence (Cattell, 1978; Salvador & García-Varcárcel, 1989; Eysenck, 1992). However, evidence of the impact of personality factors in predicting academic success is weakly established. Some studies have shown low – though significant – correlation between personality factors and academic performance. For instance, correlations obtained in Furneaux’s (1986) university survey did not score above .30. Other studies discouraged the consideration of personality factors as predictive variables of academic performance as they did not find any relationship among them (e.g. Mwamwenda, 1996). In this sense, Mouw and Khanna (1993) showed the impossibility of predicting successful performance based on personality variables.

Theoretical studies on this matter indicate that the relationship among personality and performance is not a lineal one. The potential effects of personality factors might mixed together with other pertinent variables such as academic environment conditions, learning and teaching styles, and type of academic task (Garanto, 1985; Schmeck, 1997). These comments call for qualitative and interactional analysis among the different types of variables (intellectual, motivational, and personality) which will certainly add complexity. Motivational variables are also important factors to consider as they produce psychological and psychosocial processes that might weaken or strengthen individual behaviour.

In the present meta-analysis we intent to revisit the present and past research on the role that personality and motivational factors play on university academic success. We will discuss the recent literature and compare it to our latest investigations with Spanish university student samples (Marín Sánchez, 2000; Marín Sánchez, Infante & Troyano, 2000, 2001) in which we have used self-report measures to assess student’s motivation and text anxiety (Pelechano, 1975), personality factors (Cattell, 1939), interpersonal values (Gordon, 1967), intelligence (Wechsler, 1981), and professional preferences (Kuder, 1979). The sample belongs to a population of 589 Spanish students who, without abandoning their university studies, left the first, second, or third learning centre of their choice.

1. Personality traits and academic performance

1.1. Extroversion-introversion dimension
Most studies have tried to ascertain the links between personality and academic performance through the analysis of extroversion-introversion and neuroticism-stability traits. In relation to the first personality dimension, research outcomes are confuse and contradictory making difficult to assert whether extrovert nor introvert students perform better in their academic courses. Consequently, some studies indicate that extrovert students significantly obtained higher academic results than introverts (Barbenza & Montoya, 1974; Savage, 1966). In the opposite direction, some researchers noticed that introvert students showed clear differences on an academic achievement test (Lynn & Gordon, 1961; Furneaux, 1962; Bennet, 1976; Adb El Baset, 1994). Extroversion factor had a negative relationship with performance in Maqsud’s (1993) study.

Accordingly, our Spanish sample of unsuccessful university students, 80% of which were male, described themselves as sociable, dependent on society although showing low social abilities. This data slightly confirm the idea that as academic relationships among university agents are cold and distant, being friendly or sociable does not directly help to achieve academic performance. Even more, the impersonal atmosphere usually present at universities might cause work dissatisfaction over extrovert students making difficult for them to encourage study efforts or face examinations.

1.2. Neuroticism-emotional instability dimension

Anxiety is also perceived as occupying a crucial position in academic achievement. Particularly at university level, the relationship between emotional instability (neuroticism) and academic achievement is widely proved. Many past and recent studies have stated that neurotic students are probably handicapped as compare to emotionally stable students (Barbenza & Montoya, 1974; Csorba & Dinya, 1994; De Raad & Schouwenberg, 1996). Using a representative sample of Seville University students, we found support for this fact (Marín Sánchez, Infante & Troyano, 2000, 2001). The personality profile of the unsuccessful university student defines a tense, frustrated, feeling under pressure, and impatient subject. These students showed that, in comparison with general population data, had a tendency to personal maladjustment which defined them as neurotic persons based on Eysenck Personality Questionnaire’s description (Eysenck, 1947). Even more, 40% of unsuccessful students in our sample indicated that the reasons for abandoning their studies had to do with emotional and personal problems (Marín Sánchez, 2000).

According to Ackerman and Heggestad (1997) neuroticism is equivalent to a “stress reaction” that interfere negatively on knowledge and achievement processes. However, studies such as Trivedi, Sinha, Sinha and Singh (1989) indicated that students with high levels of academic achievement scored significantly higher in neurosis. Other literature has empirically supported mixed evidence about the relationship between neuroticism and academic achievement depending on the variable used (Furnham & Mitchell, 1991; De Fruyt & Mervielde, 1996). This fact is clearly observed in the research on test anxiety which is one of a number of personality variables established as a predictor of academic performance. Test anxiety is defined as the “phenomenological, physiological, and behavioural responses that accompany concern about possible failure” (Sieber, 1980, p. 17). Dealing with this variable as a personality trait, test anxiety is said to be fairly related to poor academic performance because it disturbs recall of prior information and thus degrades performance (Hembree,
Text anxiety was the second most common problem (after economical reasons) depicted by university students on their first academic year in Roberts and Higgins’s (1992) survey. The impact of this variable on achievement processes is better seen when we analysed it as a four-factor construct. Consequently, Sarason (1984) defined a cognitive dimension of the test anxiety - composed of worry and test irrelevant thoughts-, and an emotional dimension concerning tension and bodily symptoms. McIlroy, Bunting and Adamson’s (2000) study has recently supported the fact that cognitive dimension is most consistently and strongly related to academic failure, admitting that a certain amount of anxiety may under specific conditions optimise performance. This is an old theory in stress literature that asserts that a motivated action always needs a moderated level of emotiveness (arousal) to be efficient. Therefore, high or low test anxious students may differ in relation to academic success not in terms of physiological response but in their cognitive reactions towards a social event.

In our study we also had the opportunity of assessing the two-dimension of test anxiety above described. Applying Pelechano’s Motivation and Text Anxiety Questionnaire (MAE, Pelechano, 1975), the Spanish sample of unsuccessful university students scored slightly high on inhibitory anxiety and very low on facilitate anxiety. Inhibitory anxiety measures the cognitive dimension of test anxiety and facilitate anxiety does the same with its emotional components. According to our results (Marín Sánchez, Infante & Troyano, 2001), the mean score of our students were placed in the percentile 40 and percentile 20 respectively. This indicates that although student’s levels of arousal were fairly pertinent for a positive “call of action” the weakness in confronting examinations may be associated with negative thoughts related to the stress of being evaluated. Therefore, students showed serious difficulties in positively reacting to psychological stress under social circumstances.

In a study of Alpert and Haber in 1960 it was already distinguished the presence of two types of anxious students: those to whom anxiety would rather diminish their academic efforts, and others who were able to perform well despair or thank to their emotional tension. This fact is coherent with an additional description obtained in our sample that depicted them as socially dependent subjects, with low self-esteem, and with an extreme desire of receiving social support.

This idea is already presented in earliest Cottrell’s (1968) apprehensive evaluation theory (AET). Following Cottrell’s theory, an individual is emotionally motivated to perform in the present of others because he or she is expected to be evaluated by them. This evaluative audience can be physically present or not (in mind) and refers to teachers in academic evaluations settings. The AET is supposed to produce social facilitation – that is, higher performance- only when dominants answers are present in the individual behavioural repertory. Therefore, audience in student’s mind might induce arousal that could diminish academic performance when thoughts on being evaluated by others interfere with behaviour processes (knowledge) that are not yet established.

The above arguments can give us support to the deficit model versus interference in order to explain poor performance in neurotic students. Deficit model suggests that inadequate preparation for the examination situation might induce high test anxiety through the emergence of cognitive reactions related to the performance evaluation. As it is expected, most vulnerable students to this effect are neurotic ones. Consistent with this idea our samples showed an above-mean intelligence but low participation in academic activities (i.e. high class absenteeism), significant less hours of study, and poor interest in work domain aspects.
We also found significant relationships between study time and a personal motivation to self-fulfilling in work and labour activities (Marín Sánchez, 2000).

Finally, it is curious to mention that evidence on the relationships between neuroticism and achievement has not been found among undergraduate samples (Halamandaris & Power, 1999; Busato, Prins, Elshout & Hamaker, 2000) or school children (Heaven, Mak, Barry, & Ciarrochi, 2002).

1.3. Other dimensions from the “five-factor model of personality”

The research on personality variables has enriched itself with the introduction of three other basic dimensions that together with extroversion and neuroticism comprised the big-five factors of personality: agreeableness, openness to experience, and conscientiousness. There is a growing consensus in accepting the idea that these five factors could be significant indicators of academic success (Rothstein, Paunonen, Rush, & King, 1994). However, Weiss, Lothan, Kedar, & Ben-Shakhar (1988) found that these variables explained no more than 20% of the academic scores obtained by university students. Similar percentages have been informed in lower academic levels (Lathey, 1991; Blickle, 1996).

Consequently, many studies have stated non-significant or even negative correlation between academic performance and agreeableness (De Fruyt & Mervielde, 1996; Ackerman & Heggestad, 1997; Busato et al., 2000), openness to experience (Rothstein et al., 1994; Wolfe & Johnson, 1995; Busato et al., 2000), and conscientiousness (Goff & Ackerman, 1992; Rothstein et al., 1994; Ackerman & Heggestad, 1997). Against this, agreeableness and self-reported academic performance seemed to positively correlate among school children in the recent study of Heaven et al (2002). Empirical support was also obtained for a positive relation between academic performance and openness to experience (Rothstein et al, 1994; Ackerman & Heggestad, 1997) and with conscientiousness (Goff & Ackerman, 1992; De Fruyt & Mervielde, 1996; Busato et al., 2000) all at the university level.

In relation to our surveys of unsuccessful university students, we must assert that our data confirmed that final academic performance is positively related to openness to experience and conscientiousness but negatively with agreeableness. According to our measures, students with low academic results we described as showing low leadership skills, poor initiative, socially rigid behaviour, and being very apprehensive. On the other hand, this sample self-reported high need for social recognition, sociable and with a tendency to co-operate for gathering social support. Even more, these students seemed to be careless of protocols, low self-demanding in academic habits, with low participation in social norms, rebels, and not attending cultural demands (Marín Sánchez, Infante & Troyano, 2000, 2001).

Our personality description of unsuccessful student seems to be related to a socially prescribed perfectionism. This dimension of perfectionism characterises those individuals who perceive that significant others (i.e. teachers, parents) are imposing excessively high standards on them and that they must meet them in order to please others (Mills & Blankstein, 2000). This variable is said to be related to personal maladjustment (Blatt, 1995), perception of high parental expectations and wrong thinking patterns and coping (Flett, Russo & Hewitt, 1994) which were all present in our samples. According to Deci and Ryan (1985), socially prescribed perfectionists are always trying to please others in order to avoid punishment. When studying, they are willing to obtain external non-labour outcomes (significant satisfaction of
others) that may motivate them only through negative reinforcement processes (not being punished). Motivational factors and processes also accounts for academic achievements.

2. Motivational factors and academic success

There is a great amount of empirical evidence stated that being motivated in academic goals would highly contribute to achieve academic success. Specifically, the literature related to motivational factors admits that it is better off being internally motivated to studies rather than externally (Rayhill, 2001; Zwahr-Castro, 2000). Brownlow and Reasinger (2001) have recently confirmed that high intrinsic motivation is related to low academic procrastination. Rayhill (2001) found support to relate intrinsic motivation among students and success. External outcomes of study efforts tend to lengthen in time especially at university level where the entrance in the working market – final goal – is far and even not guaranteed by the system. Therefore, externally motivated students have serious difficulties in self-reinforcement as they efforts have to be recognised by others. As it was expected Spanish samples in our studies have lower scores in intrinsic motivation compared to population and higher academic apathy and low motivation to act. As Bandura (1989) once stated intrinsic motivation may contribute to persistence on tasks and a strong sense of self-efficacy. This fact must not devalue the role of extrinsic motivation as there is some evidence that its presence although not enough is also needed for final achievement. For instance, Mills and Blankstein (2000) stated that “individuals who impose very high standards on themselves may be as much motivated by extrinsic compensation for their academic work…as they are by interest and enjoyment” (p.1193). Consistent with this idea, Brownlow and Reasinger (2001) found a significant negative relationship between procrastination and external motivation.

Motivational factors are very much related to attribution process theories and Rotter’s locus of control (Rotter, 1966). When students are able to self-reinforce themselves through their own behaviour (studying) and joint outcomes (acquiring knowledge) they have more opportunities to associate effects to personal behaviours (internal locus of control) and academic success to personal efforts (internal attribution). Some recent research has depicted the relationship among these variables. In the study of Rayhill (2001) internal attribution achievement was found to be related to success. Those students who had difficulties in passing their examinations showed external locus of control and attribution style (Brownlow & Reasinger, 2001). McClelland’s (1961) motivational measures in our studies agreed in admitting affiliation-intimacy as the strongest overall motive among unsuccessful students rather than power or achievement motivation. Students were described as socially dependent, cooperative, sociable, and with a high need for social recognition. Again, we can guess that this kind of affiliation-intimacy motivation is difficult to fulfil at university settings in which teacher and students’ relationships are commonly based on unidirectional and impersonal communication as an effect of classroom crowding.

3. Personal professional interests and expectancies

Interests and attitudes towards professions and jobs begin to establish on adolescence period. It is an outcome derived from body biological maturity and individual life experience in which personality traits, values, abilities, and others influence. We measured students’ professional interests using Kuder’s (1979) questionnaire. Data analysis indicated that this
sample had lower scores compared to those of their population. However, overall indexes showed that this sample preferred being involved in outdoors, artistic, musical, and scientific jobs (Marín Sánchez, Infante & Troyano, 2000).

We also studied the relationship between chosen career and failed university student percentage. It was confirmed that the highest failure percentages were registered in the least chosen careers and vice versa. This fact was especially seen on outdoors and artistic professions in which failure percentage were not higher than 10% of the total students in both of them. Because these professions are not socially worth society might discourage students to choose them despite their personal desire or vocational interests. In fact, 46.29% of our sample chose their present studies because of social or familiar pressures and this external conditioning was even stronger as student’s failure frequency increased.

Academic and professional expectancies are also important variables to consider in succeeding in a study career. Fernández Enguita (1999) have stated that student’s expectancies are very much related to parent’s educational level and job nature. In this sense, those students whose parent’s job were higher in social status and organisational position presented higher academic expectancies. In our national samples, 60% of unsuccessful students had poor academic expectancies. A total of 69.5% of their fathers had primary studies level or even less. This percentage was even higher in the case of mothers (74.5%). The majority of mothers had no work at all (86%) and most frequent father’s jobs had to do with medium positions at organizations (Marín Sánchez, 2000).

4. Discussion

4.1. Summary and theoretic integration

Although important, cognitive intelligence is not the unique factor involved in academic achievements. Especially at university levels we have empirical evidences that variables related to emotional intelligence are also of primary importance. The present paper has made a meta-analysis on these non-traditional variables such as personality, motivation, professional interests, attitudes, social values, and others. These variables can be considered as superficial factors (Rodríguez Neira, 1978), that is, factors not directly related to the study outcomes, but they do exert great impact among the study processes.

Our studies have depicted a psychosocial profile of unsuccessful university student commonly found in both national and international researches. The psychosocial profile describes an extrovert-neurotic individual with emotional problems related to negative cognitive evaluations when being evaluated by others due to the fear of failing. We have confirmed that his students have serious difficulties in adapting their personality and social values to university academic environment. Specifically, their lack of self-control, low intrinsic motivation and self-esteem, and the socially prescribed perfectionism seems to be theoretically related to academic success. We have found empirical support for the motivational trait taxonomy made by Kanfer and Heggestad (1999) and Heggestad (1998). These authors admitted that motivational traits would produce certain achievement-related behaviour through motivational processes. Their cluster analysis derived in two types: (1) achievement cluster and (2) anxiety cluster. First type deals with personal mastery, competence excellence, and hard work. On the other hand, anxiety cluster describes failure avoidance situations and achievement anxiety. Therefore, unsuccessful students at university
are worried by other’s evaluation so they do not get involve in student’s working processes (low conscientiousness) in order to eliminate the anxiety of a possible social disapprove. Similar results were finally obtained in Martin Cabrera’s (1998) longitudinal study. In this study, factor analysis made with 725 university student’s attribution to failing converged in three significant factors: (1) social and environmental confusion, (2) low motivation and effort (work withdrawal), and (3), worries on failing others (doubt).

There seem to be certain incompatibilities between personal characteristics and the nature of student’s job. From a vocational point of view (see Álvarez & Fernández, 1987), a student is said to succeed only if his or her skills, interests, and personality traits match job’s demands, responsibilities, and reinforcements. This view is linked to work psychology theories that underline the importance of person-job adjustment. For instance, Lofquist and Davis’s (1991) known person-environment-correspondence theory indicates that people are always seeking to find, achieve, and maintain an adjustment in their environment under the consideration of two dimensions: (1) personal skills versus work demands, and (2), individual values versus environmental reinforcements.

In the following table we try to apply the above theories to university academic failure. Firstly, university environmental conditions determine the student job description in terms of individualism, autonomy, self-control, and stability. Nowadays, the tendency of universities to be crowded stimulates cold, far, and impersonal relationships between teacher and students. Students are forced to develop convergent and divergent learning skills useful for reconstruction, abstracting, assuming, as well as taking decision, creativity and solution invention (Franbbonni, 1984). Modern arguments state that universities are not finished knowledge transmitters that force students to receive information passively (Marcelo, 1994). Instead, active and independent learning skills are highly recommended among university students.

<table>
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<tr>
<th>UNIVERSITY ENVIRONMENTAL CONDITIONS</th>
<th>UNIVERSITY STUDENT’S JOB DESCRIPTION</th>
<th>UNSUCCESSFUL STUDENT: PSYCHOSOCIAL PROFILE</th>
<th>RELATED ACADEMIC OUTCOMES</th>
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<tr>
<td>Cold, distance relationships</td>
<td>Individual work units</td>
<td>Extrovert</td>
<td>Low participation</td>
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<td>Competitiveness</td>
<td>Organizational initiative</td>
<td>Neurotic</td>
<td>Procrastination</td>
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<td>Information processes</td>
<td>Immediate feedback non-guarantee</td>
<td>Low extrinsic motivation</td>
<td>Study withdrawal</td>
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<td>(unidirectional communication)</td>
<td>Static posture in class</td>
<td>Personal maladjustment</td>
<td>Low results</td>
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<td>Hard cognitive demands</td>
<td>Progressive knowledge autonomy</td>
<td>Low conscientiousness</td>
<td>Academic failure</td>
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<td>Formal group relationships</td>
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<td>High cognitive test anxiety</td>
<td>Failure avoidance</td>
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<td>Limited social interaction</td>
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<td>Poor self-esteem</td>
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Job-model of university student and work adjustment

Secondly, we then found support for a non-fit relationship between these job demands and psychosocial profile of unsuccessful students described as extrovert, neurotic, externally motivated, and with various emotional problems. Finally, this student-job incongruence might produce negative academic outcomes.

The job-model of university student and work adjustment that we have described reminds Holland’s (1966, 1973) career theory in which people are predisposed to certain working conditions and environments taking into account their personal interests and characteristics. This author obtained the following six personal dimensions: realistic, intellectual, social,
conventional, organizational, and artistic. Applying and extending Holland’s theory we would imagine that unsuccessful university student would probably fit in organizational, realistic, and to a greater extent in artistic dimension. This feature describes people that face life looking for easy and direct reinforcements, willing to let out feelings and emotions, and showing impulsive behaviours. Therefore, their best working conditions should bear in mind the existence of non-intellectual, concrete jobs demands, with plenty of freedom to act in disorderly manner, and delivering reinforcements quickly in time and behaviour-contingently. Examples of this picture can be found in technical jobs, non-qualified positions, arts, commerce, sales, and politics, among others. Consequently, intellectual jobs such as university student are not suitable for this collective. However, setting new environmental conditions for knowledge assessments would probably diminish test anxiety in these students that would allowed intelligence to arise in order to fulfil academic demands.

4.2. Implications for educational agents

The present paper has supported that university academic failure among students is primary caused by person-job maladjustment. According to vocational and work psychology theories, personality traits, motivational processes, social values, and personal interests that do not fit student for attending academic demands would contribute to academic failure. Recent literature revision on these non-intellectual factors appears to be confused and general. Our empirical data has elaborated an unsuccessful psychological profile characterised by emotional instability (neurosis) that emerge in social evaluation situation (academic examination) due to a threat of failure and for fear of non-receiving social approval. Intellectual abilities of students with this profile could be sheltered by emotional reactions towards person-job dismatch. However, we ended our revision on test anxiety by supporting interference as well as deficit model on behaviour performance. Therefore, student’s emotional reactions deals with cognitive rather than physiological dimensions of test anxiety.

The importance of this findings and arguments allows us to identify and list general orientations to guide university students successfully. In achieving this aim we will distinguish between the different educational agents.

- Orientations towards university organizers or managers
  - Reduce class ratio to assure optimal learning conditions.
  - Organize socialization programmes for first year students.
  - Motivate teachers to bridge links between academic and working domains.
  - Also include non-intellectual criteria such as professional interests, motivation, attitudes, values, and personality traits in student selection processes at Universities.
  - Inform about university life in schools and colleges.
  - Inform about careers in schools and colleges.
  - Improve the social image of non-university studies or careers.
  - Promote continuous and multiple evaluations of students using different methodology (oral, written, individual/group performance,…).
  - Create educational guidance services (old students associations, psychologists,…)
  - Inform student on the multiple performance standards they must achieve (intellectual, emotional, and behavioural).
• Orientations towards students’ parents

- Do not force sons to choose studies that they dislike but have higher social status.
- Keep in touch with school guider of prior academic levels for vocational or academic advise: accept their orientations.
- Elaborate realistic expectancies using wide and non-biased information.
- Improve the social image of teachers, guiders, and non-university studies.
- Reinforce personal efforts and intentions (internal motivation) and never punish academic failure.
- Motivate intelectual and hard working habits through modeling technics.
- Help sons to freely take decisions on their professional future.

• Orientations towards university students

- Ask for external psychological guidance in order to choose the level and type of studies adequated to personal skills and predispositions.
- Participate on studying technics and time-management courses.
- Get deep information on the university studies (career) you wish to take before you chose it.
- Treat your study duties as a job: organise youself and set personal objectives.
- Create close and frequent relationships with partners and teachers.
- Visit your teacher’s office and take advantage of their guidance service.
- Strengthen your emotional and cognitive self-control.
- Elaborate an academic timetable and use it firmly.
- Analyse personal interests, values, and motivations (know-youself)

Future research on this topic may try to look for empirical evidence on these recommendations. The general effort should contribute to the idea that intelectual and cognitive skills, job-personality adjustment, and positive attitudes towards study are needed in order to achieve academic success at university. Although high intelligence is expected in certain studies, this cognitive variable is not the main one and does not represent all students at this level. Our series of studies have indicated that if we contribute to eliminate the “intelligence myth” academic failure at university should be analised in term of job-student maldajustment (relational analysis) rather than because of an individual lack on intelligence (personal analysis).

References


