

From School to University: A Case Study of Nursing Students

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ABSTRACT

Background: The successful transition from school to university plays a decisive role in academic success and through-put rates. The highest drop out in the nursing courses takes place in the first academic year and mostly in the first six months. If higher education institutions want to improve their retention rates, intensive interventions are necessary at the earliest possible phase, not only to identify potential students at risk, but to also prepare prospective students for higher education.

Objective: This study is part of a research programme at the University of Genoa aimed at reducing student nurse discontinuation. The root hypothesis is to consider dropouts as a multi-factorial phenomenon due to the interlacement of many factors, like students' motivations to in this professional choice and their perception of the job, individual well-being and self-esteem, teacher and friends relationship in the new contexts, family socio-cultural level, academic achievement, courses organization, impact with training and environmental problems. The goal is to identify which of these factors is more causative of dropouts.

Participants: 391 students, 20 training tutors.

Methods: The method adopted was a quali-quantitative one. The information was collected from three sources: record held on the University data base, a specific questionnaire to nurse students and interviews to training tutors in order to understand their point of view about the phenomenon.

Results: The results show a significant relationship among well-being, self-esteem, university climate perception, motivation of choose and academic achievement.

Conclusions: This results allow to identify specific measures to prevent, support and reduce the dropouts, like promote an entering students information service; create an effective liaison between schools and universities; facilitate interactions among students.

Keywords: guidance, nursing course, transition, university climate, university dropping-out, well-being,

Introduction

University transition and factors predicting drop out in nurse students

One of the determining factors for economic and social development of a nation is certainly the quality and efficiency of its training systems. This is one reason why the themes of education have taken an increasingly relevance in recent years (Monaci, 1992).

Particularly, the successful transition from school to university plays a decisive role in academic success and through-put rates. The highest drop out in the nursing courses takes place in the first academic year and mostly in the first six months (Tinto, 1993; Maxakato1999; Tinto, 2006; Thomas & Quinn, 2007), especially after the impact with the training program. Motivation can be seen either as an intrinsic or an extrinsic factor and it is another construct that can be used for predicting achievement and achievement-related behaviours. Deci and Ryan (2000) defined intrinsic motivation as motivation that originates from within the individual and results in enjoyment of the process of increasing one's competency regarding to particular academic tasks. More specifically, intrinsically motivated students are motivated to learn, perform, and/or succeed for the internal feeling of satisfaction (Gottfried, 1985; Deci & Ryan, 2000). Extrinsic motivation, on the other hand, is motivation that is directed at attaining or avoiding something outside the self. Research has shown that students who are intrinsically motivated are more likely to persist when experiencing an academic challenge (Vallerand & Bissonnette, 1992; Boyd, 2002), have a stronger academic self-concept (Cokley, Bernard, Cunningham, & Motoike, 2001), volunteer for tasks (Johnson, Beebe, Mortimer, & Snyder, 1998), and, finally, exhibit higher academic performance (Mitchell, 1992; Goldberg & Cornell, 1998).

Research has considered the reasons for students' drop outs and has demonstrated the complex influence of multiple factors (Ehrenfeld et al., 1997; Chamley, 1999; White et al., 1999; Jennings, 2002; Last, Fulbrook, 2003; Glossop, 2002; Timmins, Kalisz, 2002). Many authors (Morrow, 1986; Janosz, Blank, Bouleric, Tremblay, 2000) have tried to understand and interpret the university drop out phenomenon. Prior studies report a variety of demographic, school, individual and family background, community characteristics that are related to high school drop out (Jimerson, Egeland, Sroufe, Carlson, 2000; Francescato, Tomai, Ghirelli, 2002). According to Tanucci (2005), drop out takes place due to the students' insufficient level of adaptation and integration in the school and to a social climate, characteristic of the university formation. In other words one of those elements of the school and university context that seems to have particular importance for student adaptation, it is the same students' own reports about their experiences in the social climate (Trickett & Moos, 1973; Fraser, 1985; Brand, Felner, Shim, Seitsinger, & Dumas, 2008). The climate is a complex and multidimensional construct encompassing atmosphere, culture, values, resources, social network, and organisational, instructional, interpersonal dimensions (Loukas, Murphy, 2007). Studies have found that it is one of the elements that can modify scholastic

performances, self-efficacy, self-esteem, and outcome of the motivational task and sense of management in the learning situations (Urdan, Schoenfelder, 2006, Gilman and Anderman 2006, Appleton, Christenson, Kim, Reschly 2006).

The individual will develop broad and specific expectancies. Through the learning process, individuals will develop the belief that certain outcomes result from their action (internals) or from other forces, unrelated to them (externals). People with an internal locus of control, believe that their own actions determine the rewards that they obtain. On the other hand, those with an external locus of control, believe that their own behaviour doesn't matter much and that rewards in life are generally outside of their control. The common trend in the literature suggests an advantage of holding internal locus of control rather than external, according to the satisfaction related with the academic achievement (Amoretti, Rania, 2005).

Hay (1998), Moos and Trickett (2002) consider that the sense of belonging to a study group is an element particularly significant for the well-being and for the development of social competence. Well-being does not depend only on physical health or risk behaviour; but also on personal life satisfactions linked to social relationship, self vision and with the general well-being (Santinello et al., 2005). Self-esteem, more specifically, is commonly considered a well-being index (Benjet, Hernandez-Guzman, 2001).

Therefore, if institutions providing higher education are aiming to improve their retention rates, intensive interventions are necessary in at the earliest phase - not only to identify students potentially at risk, but to also prepare prospective students for higher education (Troskie-de Bruin 1999; Eiselen & Geyser, 2003; Bitzer & Troskie-de Bruin, 2004).

According to Eriksen and Strommer (1991), students need to make successful in the transition phase are: adapting to change; becoming familiar with new ways of teaching and learning; accepting differing classroom norms; managing time and integrating socially. The transition from high school to university marks a distinct step in a student's academic career. The step determines a switch from dependent to independent learner; from studying in a carefully monitored environment, with a highly regulated timetable, to a new phase of life where students learn to manage their own time and make decisions in a more adult and responsible manner. In different studies, a variety of pre-university and partnership projects, aiming to facilitate access and transition, developed in higher education institutions, are being discussed (Chaffee, 1992; Foxcroft & Stumpf, 2005; Thomas & Quinn, 2007). Some programmes focus specifically on information dissemination and study opportunities whilst others aim to prepare students for the academic transition.

The OECD's Education at a Glance 2008 indicates alarming drop out rates in tertiary education. Italy has the highest rate of student drop outs when compared to the other nation included in the study. In fact, less than half of those who sign up for a college course or university degree go on to complete their studies.

We concentrated our analysis on the first year drop out probability because, as it has been shown in previous works, the determinants of the drop out probability are significantly different for the first year students when comparing those for the following year (Arulampalam, Naylor, Smith, 2004). Statistical data regarding the dropping out of University in Italy seems to show that a 20% of the students leave the courses

in the first year. In recent years, the number of students enrolled in the nursing program at the University of Genoa (Italy) has shown a substantial increase. Nevertheless, the drop out rate for the nursing course is still quite high. At the University of Genoa, during the first year, the drop out rate among nursing students increased by 19%.

Objective

This study is part of a longitudinal research programme at the University of Genoa whose aim is to identify specific measures to prevent, support and reduce the drop out rate of the nursing students.

The hypothesis is to consider drop outs as a multi-factorial phenomenon originating by the many factors mingling together such as students' motivations to chose this profession and their perception of the job; individual well-being and self-esteem; relationship with teachers and friends in

the new environment; sociocultural level of the family; academic achievement; courses organization; impact with training and environmental problems. The goal of this research is to identify which of these factors would likely affect the academic performance and would potentially allow identifying those factors associated with first year drop out. Understanding the diverse causative and predictive factors, might help educators in developing more effective prevention programs and strategies.

Research methods

The methodological framework of the study is qualitative; it is divided into two complementary phases. The first phase of the study involves semi-structured interviews for training tutors (n=20) to obtain detailed qualitative attitudinal data to be used to construct the questionnaire.

The second phase consists a qualitative and quantitative questionnaire survey given to 391 nursing students, attending the first years at the University of Genoa (academic year 2008-09). Questionnaires were handed to students during lectures at the beginning of the course.

Hypothesis:

Hp 1 we expect students' motivations to choose the university program to be primarily intrinsic

Hp 2 we expect students to face difficulties when transitioning from school to university, due to their scarce preparation for higher education and poor methods of learning.

Hp 3 we expect structural factors (courses organization, workloads for students, timetables) and challenges in the learning process to be significant risk factors for university

drop out.

Hp 4 we expect statistically significant differences in self-esteem, psychological well-being, university climate and academic locus of control when considering males and females.

Hp 5 we expect statistically significant differences comparing students with low and high academic achievements, when considering self-esteem and purpose in life dimensions and relationships with their schoolmate and teachers.

Hp 6 we expect to see statistically significant differences between genders when analyzing academic achievement: female students would perform better than their male counterparts.

Hp 7 we expect higher levels of intrinsic motivations to be correlated with an higher academic performance.

Hp 8 we expect to find correlation between self-esteem, psychological well-being, university climate, academic locus of control and academic performance.

Instruments

The questionnaire included the following topics:

- Social and demographic data
- Information about the transition from high school to university (types of pre-orientation received regarding university programs, issues when transferring from school to university, students' personal motivations to be enrolled in the specific course, factors that might influence the decision to leave nursing course)
 - The impact on university life has measured with the following scales:
 - o Academic climate. The scale is composed by 49 items organized into nine dimensions including relationships with schoolmates, relationships with teachers, school-related well-

being, academic interests and self-esteem, method of study, parents' expectations, structural aspects, future employment (QSS-SV, Student Version, Santinello, Bertarelli, 2002; Santinello's modified version, modified by the Authors of this proposal). A 4-point Likert-type agreement scale will be used.

o Rosenberg global self-esteem scales (GSES, Rosenberg, 1965). This scale provides a measure of self-esteem, defined as the emotional value perceived by an individual; it consists of 10 items that will be answered according to a four-point scale, from "strongly agree" to "strongly disagree".

o Psychological well-being scale (PWB) di Ryff e Keyes, (1995; Italian version modified for adolescents by Ruini, Belaise, Ottolini, Tomba, Caffo, Fava 2007). The scale is composed by

six dimensions of psychological well-being: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth. The different dimensions are mixed together into a single 18-item measure.

Sample

Students enrolled in the nursing program at the University of Genoa (Italy) were offered to participate in the study, 357

o Academic locus of control (Pombeni, 1998), the scale is composed by 12 items and values to identify internal and external locus of control.

out of 391 students enrolled in the nursing program, participated in the study and answered the questionnaire.

Descriptive analysis

All data were stored in a computerized database and processed using the Statistical Package for the Social Sciences (SPSS ver: 16.0.2; 2008).

Participants

According to the demographic data the total sample was split as follows: 73.6% females and 26.4% males, a result which mirrors the gender division within nursing courses. The data suggest that men currently represent a relatively small percentage of the nursing students, confirming the stereotype that 'nursing' is traditionally a female profession. Therefore we can speculate that nursing might be a course still linked to gender:

The average age of the students is 24.38 years (± 7.14 ST DEV), with a minimum of 16 (foreign students with equipollent diploma) and a maximum of 58 years old.

Many students had technical institutes (24.5%), scientific lyceum (20.3%), psycho-educational secondary school (14.1%), vocational and professional schools (13.8%) background. Classical, linguistic and artistic lyceum follow with a lower percentage of students (10%), while 10.4% is represented by foreign students with diploma equipollent.

Full time students are 45.4% percent, while working students represent 21.6%. The final 33% is represented by students who work occasionally.

Transition from high school to university

Among the motivations to be enrolled in a nursing course, the most chosen is job security (62.7%), an extrinsic motivation, followed by intrinsic motivations linked to profession's characteristic (58.2% helping those who suffer; 52.1% being in direct contact with people; 46.5% being inclined towards nursing profession, 26.7% having already volunteered). Other motivations, such as influence of parents or friends, shortness of the course, competence of teachers scores around 10%. Interestingly, 8% did not know what to do. About 15% of the students are currently enrolled in nursing course because they failed the selection for another degree course.

The first hypothesis seems therefore confirmed, although the first choice is an extrinsic motivation. In fact the intrinsic motivations related to the profession, and indirectly to the course, are more affecting student's choice.

Considering school-university transition problems, 42.1% of the students affirms that they experienced difficulties when transitioning. The most cited difficulties are: lack of

basic skills (15%), inadequate learning method (15%), wrong choice of degree course (10.3%), course organisation (8.6%), others (8.1%). Interestingly, 30% of the students affirm that experiences from high school did not prepare them adequately for these specific studies.

Thus the second hypothesis seems to be confirmed as well.

Regarding the question about university pre-orientation, 55% of the students said that they have received sufficient information from graduate students or from students currently enrolled; 30.9% were satisfied with info from the web site; 27.9% received enough info from brochure; 25.3% from university orientation staff; 22% by the students' support centre; 11.4% by the mass media (tv, radio, newspapers); 12.8% others (such as working experience).

Interestingly, 36.14% of the students, that had been interviewed during their first year, has thought about dropping out, due to difficulties in learning (53.2%) and in attending the course activities (30.6%), the increase in university fees (46.0%), disillusion after comparing academic studies with expectations (27.9%), difficulty to manage studying and working (27.9%), being offered well-paid jobs (26.5%) or a job offering more satisfaction (26.2%) and any regular job (13.4%).

Therefore also the third hypothesis seems to be confirmed.

Academic climate, self-esteem, psychological well-being and locus of control

Considering all the dimensions of the academic climate, it was found out that there is no significant difference in the perception when looking at genders. Table I shows mean and standard deviation for the dimensions of academic climate scale.

The scores obtained in the different dimensions are all above average. Nevertheless, an extremely positive university context assessments does not emerge. In any case, from the obtained results we can conclude that students are confident in future employment possibilities offered by the course (average score 3.64), the parents' expectations are congruent with theirs (3.17), they have a good relationship with the fellow students (3.16), they believe they will adopt a good method of study (3.02) and also they think that their relationships with the teachers are acceptable (2.99). Regarding the university structural aspect, the results reveal the lowest score among the considered dimensions (2.80),

slightly above average; this would therefore show that the students are not particularly satisfied.

When evaluating the academic self-esteem, the mean score (2.92) is slightly lower than the general self-esteem measured with the Rosenberg scale (3.27). This average value seems to confirm other studies on university students (Martin-Albo, N€•ez, Navarro, Grijalvo 2007). Thus these results show that students' self-esteem in the university context is generally lower than students' self-esteem in their real life situation.

Table 2 shows mean and standard deviation of the dimensions of psychological well-being scale (PWB).

The measurement of purpose in life obtained the higher average score, probably because the participants live in a phase of life whose targets have significant value. When considering gender differences, we do not find statistically significant differences in the different dimensions of the scale.

Interestingly, students with a higher internal locus of control (mean score 21.89 ± 2.02 ST DEV) than external (mean score 15.36 ± 2.70 ST DEV). Some authors suggested that a greater internal locus of control is linked with higher levels of academic performance.

The fourth hypothesis seems to find a partial confirmation. It was found out that there is no significant difference in gender in all dimensions, except general self-esteem ($F=4546$ **), in which males obtained higher average score ($M = 3.36$, $F = 3.24$), and internal locus of control ($F=4754$ **) where, by contrast, females obtained higher average score ($M = 21.48$, $F = 22.03$).

Academic achievements

16.8% of the students did not pass an examination at the end of the first semester; the remaining 83.2% of students, 61.7% have passed only one exam, 36.9% two and 1.4% three.

Table 3 shows the number of university credits, obtained by passing exams, at the end of the first semester (total of 23, training excluded).

The average university score is $25.64 (\pm 2.85$ ST DEV).

An index based on the number of obtained credits and the university marks has been identified. We divided the students into two groups (high vs. low academic achievements).

Students with high academic achievements have more likely elevated mean values in all dimensions, especially as we could wait get higher average scores in the dimension of internal locus of control and lowest in the dimension of external locus of control. However, as shown in table 4, we found out a statistically significant difference only for general self-esteem ($F=8.507$ **), personal growth ($F=7.549$ **), relationships with schoolmate ($F=5.332$ **), parents' expectations ($F=9.886$ **) and external locus of control ($F=4.551$ **). Students with elevated levels of self-esteem and personal growth, positive and growing relationships with fellow students, lower parents' expectations, high internal academic locus of control and low external would

be expected to perform better on academic achievement tasks.

The fifth hypothesis seems to be confirmed, exception made for the teachers' relationship dimension.

Also the sixth hypothesis seems to be confirmed. Even if there are not statistically significant differences between genders, females obtained higher average scores in academic performance and in self-esteem when compared to males. Females obtained lower scores in general self-esteem (Martin-Albo, N€•ez, Navarro, Grijalva 2007), but they displayed better academic performances due to the a higher self esteem linked to university environment.

Students intrinsic motivation towards choice of the university course

We identified two groups, one with high intrinsic motivation and another with low intrinsic motivation, based on the questionnaire's answers. Students with high intrinsic motivation achieved better academic performance, even though the differences between the two groups were not statistically significant.

The seventh hypothesis seems therefore to be confirmed.

Table 5 shows the significant differences between the two groups (low vs high) according to the various dimensions considered.

Students who scored higher in intrinsic motivation tended as well to obtain higher scores in the dimensions analyzed, such as personal growth, positive relationships with others and relationships with schoolmates, academic interest, parents' expectations and future employment.

Correlations

The construction of self-esteem (GSES) and well-being (PWB) correlate positively ($.542$ **), in accordance with the literature about psychological well-being for individuals.

As shown in table 6, increasing self-esteem scores correlate with an increased value in the dimension of self-acceptance, purpose in life, independence and positive relationships with others, and moderately in dimensions of environmental mastery and personal growth.

The academic achievements positively correlate with the dimensions of self-esteem ($.156$ **) and relationships with schoolmates (QSS_S) ($.124$ **) and correlate negatively with the dimension of parents' expectation (QSS_S) ($-.168$ **).

The construct of self-esteem correlates positively with all dimensions of academic climate, exception made for the parents' expectation and the structural aspects. In particular, the strongest correlation is found within the academic self-esteem and relationships with schoolmate (Table 7).

These results reveal also that general self-esteem is related with the internal academic locus of control.

The eight hypothesis seems to be confirmed since GSES correlate with some dimensions of the PWB and QSS scales and with the academic locus of control and academic performance.

Conclusions

The results of these initial studies would suggest that the problems faced by our students seem to be related with the transition from school to university. These difficulties, confirmed by this survey, highlight the need to create an effective liaison and a coordination service between schools and universities, including structures for collaboration between school and university teachers, especially in the ongoing identification of skill and learning orientation outcomes for the completed secondary education.

The first year of university studies may therefore need to consider strategies for promoting an early academic orientation programs, specifically designed to capture mismatches between course expectations and course experiences/aims.

Regarding the problems associated with the university climate, it seems that the anonymity of the large class can encourage non-attendance, that students may be unused to organizing their own study, and they may feel that they have

nobody to ask for help. A solution might be to create social orientation programs, such as orientation activities and other initiatives designed to facilitate interactions among students starting the university career and between them and more senior undergraduate students.

We therefore speculate that poor academic achievements (low scores or failed examinations) could be a predicting factor for drop out in the first year. Therefore, because of the existing positive correlation between academic performance and self-esteem, we would need to identify measures to increase the academic success such as a support centre, where students can receive one-on-one help from an experienced tutor; and a self-help group of learning to support students studying on their own.

Finally, more extensive longitudinal studies would be necessary as well, in order to monitor the evolution of motivations over time and to confirm which factors have an higher influence on the drop out phenomenon.

REFERENCES

- Amoretti, G., Rania, N., 2005. L'orientamento: teorie, strumenti e metodi. Collana Le Bussolle, Carocci, Roma.
- Appleton, J.J., Christenson, S.L., Kim D., Reschly, A.L., 2006. Measuring cognitive and psychological engagement: Validation of the Student Engagement Instrument. *Journal of School Psychology*, 44, pp. 427-445.
- Arulampalam, W., Naylor, R.A., Smith, J.A., 2004. Hazard Model of the Probability of Medical School Dropout in the United Kingdom. *Journal of the Royal Statistical Society, Series A*, 167, pp. 157-178.
- Benjet, C., Hernandez-Guzman, L., 2001. Gender differences in psychological well-being of Mexican early adolescents. *Adolescence* 35, pp. 47-65.
- Bitzer, E., Troskie-De Bruin, C., 2004. The effect of factors related to prior schooling on student persistence in higher education. *South African Journal of Education*, 24, pp. 119-125.
- Boyd, F.B., 2002. Motivation to continue: Enhancing literacy learning for struggling readers and writers. *Reading and Writing Quarterly: Overcoming Learning Difficulties* 18, pp. 257-277.
- Brand, S., Felner, R., Seitsinger, A., Burns, A., Bolton, A., 2008. Assessing the social environment of middle schools: The validity and utility of teachers' ratings of school climate, cultural pluralism, and safety problems for understanding and assessing the impact of school improvement. *Journal of School Psychology*, 46(5), pp. 507-535.
- Chaffee, J., 1992. Transforming educational dreams into educational reality. In L. S. Zwerling & H. B. London (Eds.), *First-generation students: Confronting the cultural issues*, New Directions for Community Colleges, no. 80 (pp. 81-88). San Francisco: Jossey-Bass Publishers.
- Charnley, E., 1999. Occupational stress in the newly qualified staff nurse. *Nursing Standard*, 13 (29), pp. 32-36.
- Cokley, K.O., Bernard, N., Cunningham, D. and Motoike, J., 2001. A psychometric investigation of the academic motivation scale using a United States sample. *Measurement and Evaluation in Counseling and Development* 34, pp. 109-119.
- Deci, E.L., Ryan, R.M., 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and well being. *American Psychologist* 55, pp. 68-78.
- Education at a Glance 2008: OECD indicator.
- Ehrenfeld, M., Rotemberg, A., Sharon, R., Bergman, R., 1997. Reasons for student attrition on nursing courses: a study. *Nursing Standard*, 11 (23), pp. 34-38.
- Eiselen, R., Geysler, H., 2003. Factors distinguishing between achievers and at risk students: A qualitative and quantitative analysis. *South African Journal of Higher Education* 17(2), pp. 118-30.
- Eriksen, B., Strommer, D., 1991. *Teaching College Freshmen*. San Francisco: Jossey Bass.
- Foxcroft, C., Stumpf, R., 2005. What is matric for? Paper presented at Umalusi Seminar, Pretoria.
- Francescato, D., Tomai, M., Ghirelli, G., 2002. *Fondamenti di psicologia di comunità*. Roma: Carocci.
- Fraser, B. J., 1985. *The study of learning environments*. Salem, OR: Assessment Research.
- Gilman, R., Anderman, E.M., 2006. The relationship between relative levels of motivation and intrapersonal, interpersonal, and academic functioning among older adolescents. *Journal of School Psychology*, 44, pp. 375-391.
- Glossop, C., 2002. Student nurse attrition: use of an exit interview procedure to determine student's leaving reasons. *Nurse Education Today* 22 (5), pp. 375-396.
- Goldberg, M.D., Cornell, D.G., 1998. The influence of intrinsic motivation and self-concept on academic achievement in second- and third-grade students. *Journal of Education of the Gifted* 21, pp. 179-205.
- Gottfried, A.E., 1985. Academic intrinsic motivation in elementary and junior high school students. *Journal of Educational Psychology* 77, pp. 631-645.
- Hay, R., 1998. Sense of place in developmental context. *Journal of Environmental Psychology*, 18(1), pp. 5- 29.
- Janosz, M., Blank, M., Bouleric, B., Tremblay, R.E., 2000. Predicting different types of school dropout: a typological approach with two longitudinal samples. *Journal of educational psychology*, 92, pp. 171-190.
- Jennings, K., 2002. Nursing: it is vital to raise the profile of the nursing sector. *The Independent*, 26 March 2002, p. 2.
- Jimerson, S., Egeland, B., Sroufe, L.A., Carlson, B., 2000. A Prospective Longitudinal Study of High School Dropouts Examining Multiple Predictors Across Development. *Journal of School Psychology*, Vol. 38, No. 6, pp. 525-549.
- Johnson, M.K., Beebe, T., Mortimer, J.T., Snyder, M., 1998. Volunteerism in

adolescence: A process perspective. *Journal of Research on Adolescence* 8, pp. 309-332.

Last, L., Fulbrook, P., 2003. Why do student nurses leave? Suggestions from a Delphi Study, *Nurse Education Today*, 23, pp. 449-458.

Loukas, A., Murphy, J.L., 2007. Middle school student perceptions of school climate: Examining protective functions on subsequent adjustment problems. *Journal of School Psychology*, 45, pp. 293-309.

Martín-Albo, J., Nuez, J.L., Navarro, J.G., Grijalvo, F., 2007. The Rosenberg Self-Esteem Scale: Translation and Validation in University Students, *The Spanish Journal of Psychology*, Vol. 10, n. 2, pp. 458-467.

Maxakato, P., 1999. A study of perceived causes of academic failure of first-year students at the University of the Western Cape. MEd in the Department of Educational Psychology, University of the Western Cape, Cape Town.

Mitchell, J.V., 1992. Interrelationships and predictive efficacy for indices of intrinsic, extrinsic, and self-assessed motivation for learning, *Journal of Research and Development in Education* 25, pp. 149-155.

Monaci, G., 1992. Gli abbandoni degli studi universitari in Lombardia. Franco Angeli, Milano.

Moos, R., Trickett, E., 2002. *Classroom Environment Scale Manual* (3 ed.). Palo Alto CA: Consulting Psychologists Press.

Morrow, G., 1986. Standardizing practice in the analysis of school drop-outs. In Natriello G. (a cura di), *School drop-outs. Patterns and Policies*. Teachers College Press, New York, pp. 38-51.

Pascarella, E.T., Terenzini, P.T., 1991. *How college affects students*. San Francisco: Jossey Bass.

Pombeni, M.L., 1998. *Il colloquio di orientamento*. Carocci, Roma.

Rosemberg, M., 1965. *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Ruini, C., Belaise, C., Ottolini, F., Tomba, E., Caffo, E., Fava, G.A., 2007. L'applicazione della Well-being therapy in ambito scolastico: uno studio pilota, *Rivista di Psichiatria*, 42(5), pp. 320-326.

Ryff, C.D., Keyes, C.L., 1995. The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, pp. 719-727.

Santinello, M., Bonsuan, C., Dallago, L., Noventa, D., Salvan, L., 2005. Salute: benessere fisico, emotivo e sociale. In Bertinato L., Mirandola M., Ramazzo L., Santinello M. (a cura di). *Diventare adolescenti: salute e stili di vita nei giovani tra gli undici e i quindici anni*. McGraw-Hill, Milano.

Santinello, M., Bertarelli, P., 2002. La scuola come setting. In M. Prezza e M. Santinello (a cura di), *Conoscere la comunità. L'analisi degli ambienti di vita quotidiana*. Il Mulino, Bologna, pp. 257-296.

Tanucci, G., 2005. Il successo universitario: sapere di psicologia per iscriversi a psicologia. *Risorsa uomo*, vol. 11, n. 1-2, pp. 163-177.

Thomas, D.L., Thomas, E., Quinn, J., 2007. *First generation entry into higher education: an international study*. Society for Research into Higher Education, McGraw-Hill International.

Timmins, F., Kaliszer, M., 2002. Aspects of nurse education programmes that frequently cause stress to nursing students. *Fact-finding sample survey*. *Nurse Education Today*, 22 (3), pp. 203-211.

Tinto, V., 1993. *Leaving College: Rethinking the causes and cures of student attrition* (2nd Ed). Chicago: University of Chicago Press.

Tinto, V., 2006. Research & practice of student retention: What next? *Journal of College Student Retention*, 8, pp. 1-19.

Trickett, E., Moos, R.H., 1973. The social environment of junior high and high school classrooms. *Journal of Educational Psychology*, 65, pp. 93-102.

Troskie-de Bruin, C., 1999. *Academic Development: Bridging at a South African University*. DEd in the Faculty of Education, Stellenbosch University, Stellenbosch.

Urduan, T., Schoenfelder, E., 2006. Classroom effects on student motivation: goal structures, social relationships, and competence beliefs. *Journal of School Psychology*, pp. 331-349.

Vallerand, R.J., Bissonnette, R., 1992. Intrinsic, extrinsic, and amotivational styles as predictors of behavior: A prospective study. *Journal of Personality* 60, pp. 599-620.

White, J., Williams, R., Green, B.F., 1999. Discontinuation, leaving reasons, and course evaluation comments of students on the common programme. *Nurse Education Today*, 19, pp. 142-150.

Tables

Table 1 Mean and standard deviation for the QSS-SV dimensions

Dimension	Mean	S. D.
relationships with schoolmates	3.16	0.38
relationships with teachers	2.99	0.41
academic interest	2.94	0.43
method of study	3.02	0.47
parents' expectations	3.17	0.46
academic self-esteem	2.92	0.58
structural aspects	2.80	0.59
future employment	3.64	0.37

Table 2 PWB dimensions

	autonomy	environmental mastery	personal growth	positive relationships with others	purpose in life	self-acceptance
Mean	14.60	14.73	13.30	14.20	15.63	12.62
Std. Deviation	2.80	2.15	2.78	3.07	2.73	2.65

Table 3 Credits at the end of the first semester

Credits obtained	Students	Percent
2	10	3.4
5	174	58.4
6	1	.3
7	107	35.9
8	2	.7
10	4	1.3
Total	298	100,0

Table 4 Academic achievements and levels of GSES, PWB, QSS, locus of control

Dimensions	academic achievements (mean)		F
	low	high	
self-esteem (GSES)	31.59	33.23	8.507**
personal growth (PWB)	12.69	13.58	7.549**
purpose in life (PWB)	15.44	15.72	.774
self-acceptance (PWB)	12.49	12.68	.366
autonomy (PWB)	14.59	14.61	.006
environmental mastery (PWB)	14.80	14.70	.142
relationship with others (PWB)	14.40	14.13	.575
relationship with schoolmates (QSS_S)	3.09	3.19	5.332**
relationship with teachers (QSS_S)	3.00	2.99	.090
academic interest (QSS_S)	2.97	3.01	.896
method of study (QSS_S)	3.01	3.03	.110
parents' expectation (QSS_S)	3.29	3.12	9.886**
academic self-esteem (QSS_S)	2.95	2.90	.560
structural aspects (QSS_S)	2.79	3.63	.031
future employment (QSS_S)	2.80	3.65	.192
internal academic locus of control	21.68	21.98	1.15
external academic locus of control	15.83	15.15	1.551**

Note: ** = $p < .001$

Table 5 Significant differences between low and high intrinsic motivation in the questionnaire dimensions

Dimensions	Intrinsic motivation	Mean	F
personal growth (PWB)	Low	12.88	4.488**
	High	13.54	
positive relationships with others (PWB)	Low	13.74	4.468**
	High	14.46	
relationships with schoolmates (QSS_S)	Low	3.09	6.340**
	High	3.20	
academic interest (QSS_S)	Low	2.84	9.187**
	High	2.99	
parents' expectations (QSS_S)	Low	3.10	4.548**
	High	3.21	
future employment (QSS_S)	Low	3.58	4.518**
	High	3.67	

Note: ** = $p < .001$

Table 6 Correlation among GSES and PWB dimensions

Dimensions	1.	2.	3.	4.	5.	6.	7.
1.self-esteem (GSES)	1						
2. autonomy	.378**	1					
3.environmental mastery	.321**	.226**	1				
4. personal growth	.264**	.200**	.160**	1			
5. positive relationships with others	.352**	.331**	.278**	.314**	1		
6. purpose in life	.400**	.294**	.359**	.230**	.346**	1	
7. self-acceptance	.441**	.415**	.341**	.251**	.291**	.402**	1

Note: ** = p < .001

Table 7 Correlation among GSES, academic climate and academic locus of control

Dimensions	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1.self-esteem (GSES)	1										
2.relationships with schoolmates (QSS_S)	.246**	1									
3.relationships with teachers (QSS_S)	.133**	.138*	1								
4.academic interest (QSS_S)	.182**	.239**	.319**	1							
5.method of study (QSS_S)	.161**	.238**	.270**	.544**	1						
6.parents' expectations (QSS_S)	.079	.214**	.113**	.250**	.338**	1					
7.academic self-esteem (QSS_S)	.465**	.152**	.249**	.346**	.365**	.191**	1				
8.structural aspects (QSS_S)	.143*	.261**	.438**	.425**	.331**	.149*	.204**	1			
9.future employment (QSS_S)	.155**	.151**	.282**	.382**	.312**	.185**	.214**	.365**	1		
10.internal academic locus of control	.163**	.048	.130*	.306**	.247**	.174**	.143*	.176**	.205**	1	
11.external academic locus of control	-.036	.137**	-.016	.064	-.045	.161**	-.007	.124*	.044	.236**	1

Note: * = p < .01; ** = p < .001