

Academic procrastination in non-traditional college students

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Abstract

Introduction. Procrastination is the act of delaying necessary tasks to the extreme of experiencing discomfort and negative consequences for the individuals. The presence of nontraditional students at universities is a phenomenon which has increased remarkably over the last decades. This type of university students finds some difficulties during their studies, which could result in a higher prevalence of procrastination behaviors among nontraditional college students. To test this, our work compares procrastination levels and reasons to procrastinate among traditional and nontraditional students

Method. A sample of 479 Colombian college students was used. Procrastination and the reasons to procrastinate are measured by the *Procrastination Assessment Scale - Students (PASS)*. The data analysis is based on descriptive statistics, exploratory factorial analysis, t-test for independent samples and Cohen's *d*.

Results. Nontraditional students show higher procrastination levels ($t=4,412$; $p<0,001$; $d=0,459$), although their reasons to procrastinate are similar to those of traditional students. The nontraditional student condition is a demographic variable relevant for explaining academic procrastination.

Discussion and Conclusion. These results suggest the convenience of offering academic counseling and guidance to nontraditional students, to attend procrastination and thus reduce low achievement or dropout risks.

Keywords: procrastination, nontraditional students, demographics, Higher Education, academic counseling.

Resumen

Introducción. La procrastinación es la acción de retrasar la realización de tareas necesarias, hasta el extremo de generar malestar y perjuicios a los individuos que la protagonizan. La presencia de alumnado no tradicional en las universidades se ha incrementado notablemente en las últimas décadas. Este tipo de estudiantes encuentra dificultades en sus estudios, las cuales podrían propiciar una mayor incidencia de las conductas procrastinadoras. Para comprobarlo, comparamos los niveles de procrastinación y motivos para procrastinar entre estudiantes tradicionales y no tradicionales.

Método. Utilizamos una muestra de 479 estudiantes colombianos. Los niveles de procrastinación y motivos para procrastinar fueron medidos a partir de la *Procrastination Assessment Scale – Students (PASS)*. En el análisis de datos se utilizaron estadísticos descriptivos, análisis factorial exploratorio, prueba t para muestras independientes y d de Cohen.

Resultados. Los estudiantes no tradicionales han presentado niveles de procrastinación superiores ($t=4,412$; $p<0,001$; $d=0,459$), aunque los motivos para procrastinar no difieren de los aportados por estudiantes tradicionales. El carácter de estudiante no tradicional ha resultado ser una variable relevante en la explicación de la procrastinación académica.

Discusión y conclusiones. A partir de estos resultados, se deriva la conveniencia de ofrecer una orientación académica al alumnado no tradicional, con el fin de tratar la procrastinación y reducir así posibles riesgos de bajo rendimiento o abandono en este colectivo estudiantil.

Palabras Clave: procrastinación, estudiantes no tradicionales, educación superior, orientación académica.

Introduction

Procrastination

Delaying or leaving for the last minute making a decision, performing a task or accomplishing an obligation is something that to a greater or lesser degree, many people, have practiced eventually in different situations. The term *procrastination* refers to that. Etymologically, this word has a Latin root and is formed by the prefix *pro*, that denotes action or movement forward, and *crastinus*, meaning something that belongs to tomorrow. To procrastinate means "move to tomorrow" which in turn means to delay something.

Delaying a task can sometimes be a form of an adaptive conduct, that people practice because they prioritize others that are more important, consider that they need more information or resources before approaching it (Ferrari, 2010). Some individuals use it as a strategy to work under pressure and so maximize the motivation, or performance with less time investment (Schraw, Wadkins and Olafson, 2007). Such ways of behaving respond to what could be called a functional or strategic delay (Klingsieck, 2013).

This type of active delay when approaching a task, which consequences could be positive, is far from the persistent behaviors of delaying that, even though they are performed voluntarily, are unnecessary and illogic, and get to interfere with normal life representing a problem to whom perform them. The above is the traditional meaning in the psychological ambit, where the concept of procrastination is understood as a self-regulation failure of an individual (Pychyl and Flett, 2012; Rozental and Carlbring, 2014; Steel, 2007). Procrastination implies to delay the beginning or the end of an essential task for the individual to the point of getting right to or overshooting a deadline, sometimes indefinitely, even knowing that the ideal would be to perform it on time (Gupta, Hershey and Gaur, 2012; Rozental and Carlbring, 2013). The habitual procrastinators not only put in risk the completion and success of the affected tasks but also can experience, problems in their relationships, stress, anxiety or depression (Rozental and Carlbring, 2014). Procrastination goes beyond of the delay in performing tasks; it generates discomfort in the individuals'. It

implies frustration, discontentment or a sense of guilt in the subject that delays (Corking, Yu and Lindt, 2011; Krause and Freund, 2014).

Several studies have analyzed the percentage of individuals implicated in procrastinating conducts to the point that it generates anxiety and difficulties as mentioned above. In the meta-analysis by Steel (2007) about this type of studies, its confirmed an increase in the prevalence of procrastination in the general society as years go by. Starting from 4-5% of procrastinating adults in the seventies, to 15-20% of adults chronically affected, in recent studies (Steel, 2012). As a consequence, procrastination constitutes, nowadays, a widespread behavior.

The scientific literature has identified a series of associated factors to the procrastination conducts. Concerning the demographic traits of the individuals', research has been focused on the incidence of gender and age (Steel, 2007). The results show that men procrastinate slightly more than women. A possible explanation is found in that men tend to present higher levels of impulsivity (Strüber, Lück and Roth, 2008) and lower levels of self-control (Higgins and Tewksbury, 2006). About age, the development of higher cognitive functions essential for self-regulation is not present until adolescence, explaining a higher procrastination in younger subjects (Rozental and Carlbring, 2014). Moreover, an older age implies greater experience and the possibility that procrastinating individuals' have developed strategies to avoid unjustified delays. Despite that, in previous studies, the correlation of age and gender with procrastination has been low but statistically significant in large samples, and it continues to be a subject of research (Ferrari, 2010).

The macro survey on adult population in eight English speaking countries in four continents, conducted by Steel and Ferrari (2013), included demographic variables that in previous studies appeared to be related to procrastinating tendencies. Besides the link between gender and age, the findings of this study also showed a relation between the variables marital status and education level. Therefore, the procrastinator profile would be a single young man with a low level of education. The size of the family and geographic location of their residence did not result as relevant variables in the explanation of the procrastinating conducts.

There have been numerous studies on the relation between procrastination and different personality traits (Steel, 2007). High levels of neuroticism, impulsivity, and low levels of concentration, organization or self-control, have been identified as useful predictors. On the other hand, their relation with extroversion, intelligence, and aptitudes has been ruled out. In the ambit of dysfunctional conceptions of the individuals', procrastination is associated with an excess of perfectionism, low self-esteem, low perceived self-efficacy and low levels of tolerance towards frustration (Pychyl and Flett, 2012). Other studied variable has been motivation. Under the two-factor model of Strunk et al. (2013), the motivational continuum would go from achievement motivation to avoidance motivation. Both motivational sources could result or not in procrastination, but for different reasons: for achievement, in search of a better performance or improvement on the own abilities, or by avoidance of unwanted consequences. Also, the characteristics of the task itself could lead to procrastination in a higher or lower level, depending on its appeal and the interest that awakens (Ferrari and Scher, 2000).

Considering the findings that research has provided in the last decades, Balkis and Duru (2007) propose among the most common procrastination causes, poor time management, overwhelming feelings, lack of motivation, lack of work organization skills, concentration difficulties, fear and anxiety of failure, low self-confidence, personal issues of diverse nature, unreal expectations or excessive perfectionism.

Academic procrastination

The prevalence of the procrastinating conducts is highlighted with the academic population. For Rozental and Carlbring (2014), if procrastination affects a fifth of the adult population, it could be half of the college student's population. According to Day, Mensink and O'Sullivan (2000), at least 50% of these students procrastinate repeatedly and problematically. Even more, Steel and Ferrari (2013) estimated the percentage of the college students that delays tasks between 80% and 95%, of which the most part recognize to be procrastinators.

The presented values raise the issue that procrastination is a phenomenon with an essential presence in college. To wait until the last moment to hand over an assignment, delay study to around the tests, or leave enrollment in specific subjects for future academic courses, are practices widely spread among college students. In these terms, academic procrastination

is consolidated, defined as a dysfunctional behavior that avoids, postpone or justifies delays in an academic task (Onwuegbuzie, 2004).

Especially in an academic environment, procrastination constitutes a significant problem, for its high prevalence and the derived consequences. As in the rest of the population, the procrastinating students suffer from stress, anxiety or negative feelings. Moreover, Sirois (2004) study, revealed an increase in the intensity of suffered illnesses by procrastinating college students. This increase in incidence is registered especially when the end of the school term is approaching, the moment in which all the previously postponed tasks are concentrated. The consequences observed on learning also have to be considered. Among the students, to procrastinate represents the result of inefficacy in time management, which delays the achievement on the academic goals and reduces performance (Ferrari and Díaz-Morales, 2014; Kim and Seo, 2015). This adverse effect on learning is due to that the procrastinators make more mistakes, work slower, and do not attend to task instructions (Abbasi and Alghamdi, 2015).

Non-traditional college students

College students, with time, have diversified considerably compared to previous years, as the access to higher education has been democratized. The traditional college student profile that was youngsters that just finished high school, with ages around 18-20 years, full-time students and that depended financially on their families is in the past. Nowadays, in most countries, a high percentage of whom initiate their college studies do not fit in the profile above. The presence of non-traditional students in universities has been higher in the last decades and is expected to rise even more in the next years (Cruce and Williams, 2012; Klemencic and Fried, 2007).

The concept of the non-traditional student has been the subject of various definitions, based on the possession of certain traits that traditionally were not common among college students. The primary way to characterize them was based on age on which a student starts college, considering as not traditional those who start their studies when older than 23-25 years (Bean and Metzner, 1985). This criterion, by itself, allows characterizing as non-traditional, a heterogeneous group. In it could be included those students that interrupted their studies for several years, access college through alternate ways to a high school title, are already working or have constituted a family. Horn (1996) established different condition to

characterize the non-traditional student: initiates his/her college studies years after he/she could have, enrolls in part of the course different subjects, works fulltime, is economically dependent, has persons that depend on him/her, is single mother or father, or does not possess a high school title.

Recently, the typology of non-traditional students has widened. Included in it are those who differentiate of the majority of students for diverse reasons: low socioeconomic level, being part of the first generation that access education in their families, belong to an ethnic minority or proceed from families on which the mother language differs from that at college (Rendón, Jaromo and Nora, 2000). Also, it has been characterized as non-traditional those students that move to another country to pursue a college degree, or those who come from a rural environment and have to adapt to a college culture fundamentally urban (Meuleman et al., 2014).

Research on non-traditional students has frequently been centered in the analysis of their experience and integration to college life, the compatibility of student condition and other roles performed aside from college, or the difficulties that they find to succeed in their studies, with particular attention to the problems of low performance and drop out (Bowl, 2001; Cantwell, Archer and Bourke, 2001; Munro, 2011; Schuetze and Slowey, 2002).

In the present study, we consider as non-traditional students those who combine their studies with family and work responsibilities. A characteristic trait of the college system in Colombia, where this work is contextualized, is the high presence of young students that work. However, unlike of what is observed in Europe or the United States, most of this students do not work part time but full time, for which this trait is especially relevant to characterize the non-traditional students in Colombian universities. This type of Colombian non-traditional students usually chooses night school and finds difficulties to finish their college studies (Buitrago, Fedosova and Britto, 2012).

Objectives and hypothesis

For Abbasi and Alghamdi (2015) procrastination constitutes a complex psychological phenomenon that is among the less studied. Likewise, revisions by Steel (2007) and Rozental and Carlbring (2014) concluded that procrastination had not been sufficiently explained. This type of asseverations endorses the pertinence to approach the study of the procrastination

phenomenon, which provides new results for the variables associated with it. To this fact, we link the increasing presence of the non-traditional students in higher education. Research on it has shown that this type of students achieves a lower performance than the rest of the students (Cantwell, Archer and Bourke, 2001), and the dropout rates after their first year are higher compared to traditional students (Gilardi and Guglielmetti, 2011). To adopt measures that benefit the integration in college and the academic progress is interesting to know if the procrastinating conducts are mainly present in this students group.

As mentioned in the introduction, the literature has given particular attention to the role of demographic traits as gender, age, marriage status or education level in the explanation of procrastinating conducts. However, we have not identified studies that analyze a possible link between academic procrastination and the condition of a non-traditional student, characterizing this in function of the combination of the studies with other obligations. In this study, we approach the analysis of the procrastinating conducts, focusing the attention on a group of non-traditional Colombian college students. By it, we have proposed as the objective to analyze the level of procrastination, the type of tasks that are delayed and the motives for which the non-traditional students procrastinate, comparing them to the traditional students.

The non-traditional students, characterized to combine their college studies with other familiar or work responsibilities, could not have enough study time. As a consequence, we hypothesize that this type of students presents higher procrastination levels compared to traditional students.

Method

Participants

479 students from two Colombian universities took part, El Bosque (n=393) and Uniempresarial (n=102), both in the city of Bogotá and were from psychology, education, engineering and management and business programs. We considered as non-traditional students to those that combine studies with another type of familiar or work responsibilities that prevent them from dedicating full time to their studies. Starting from the information provided by the students, two groups of students were identified, traditional (n=262) and non-traditional (n=217). In the group of traditional students, 22,4% were men and the average age

was 18,32 years (sd=2,75). In the non-traditional group, 28,6% were men and the average age was 20,52 years (sd=4,03).

Instrument

To assess procrastination the *Procrastination Assessment Scale - Students* (PASS) by Solomon and Rothblum (1984) was used, it is centered explicitly in academic procrastination in college students. A Spanish version of the instrument, adapted for the Colombian context, was used (Garzón and Gil, 2017). A professional translator performed an initial translation of the PASS from English to Spanish, that was revised afterward by three Colombian psychologists in search of confounding or inaccurate expressions. Moreover, the final version was applied to five Colombian college students to whom a semi-structured interview was performed at the end of the test application in search of further confusing or ambiguous terms from the cultural standpoint. When the resulting scale was applied in the present study, the participants were requested to fill out demographic data including gender, age, and dedication to the studies (full time or part-time).

The PASS test has two sections, the first assesses the procrastination prevalence in six types of academic tasks: a) submit a final assignment, b) study for an exam, c) keeping up with the weekly readings, d) perform administrative tasks (formalize enrollment, obtaining the university id, etc.), e) participate in attendance tasks (*seminars, tutorships, etc.*), and f) *perform general academic tasks*. Concerning each one of those, the participants had to indicate with which frequency they delay the realization of such tasks, using a five-point Likert scale: *never* (1), *almost never* (2), *sometimes* (3), *nearly always* (4) and *always* (5). Furthermore, they expressed the frequency of which the postponement of such tasks presents problems for them, using the same scale. In the definition of procrastination is included the delay of the performance of a task as well as the disagreement to the delay or discomfort that generates in the individual. In consequence, the derived procrastination measure of the PASS is obtained adding both scores, the frequency and problematic character of the delays. In that way, the resulting indices are characterizing a scale between 2 and 10.

The second section of the PASS test provides the student with an example of procrastination (postpone the elaboration of a final assignment) and offers an array of 26 possible reasons that would explain procrastination in this task. Anxiety, difficulty in making decisions, low assertiveness, rebellion against control, fear of success, task aversion or

perfectionism, are some of the suggested reasons. Each one of these reasons is formulated through items, for which the student has to indicate in what degree they reflect the reason for which he/she procrastinated the last time the writing of a final assignment was delayed. A five-point Likert scale is used, in which 1 corresponds to *not at all reflects why I procrastinated* and 5 to *definitely reflects why I procrastinated*.

The authors of the PASS, Solomon and Rothblum (1984), did not provide data about the reliability. However, in a posterior study, Ferrari (1989) found a test-retest correlation of 0,74 ($p < 0,001$). The test authors did inform about the factorial structure of the motives to procrastinate, identifying two main factors. The first grouped anxiety, perfectionism, and low self-confidence, explaining 49,4% of the variance. The second included task aversion and laziness and explained 18,0% of the variance. Other factors grouped the rest of the reasons to procrastinate but were discarded because of the low percentage of explained variance. In the present study, the Cronbach's alpha of the values for the first and second section of the instrument was located in 0,86 and 0,91 respectively. About the two factors found by Solomon and Rothblum (1984), the exploratory factor analysis of the reasons to procrastinate detected five factors that explain 54% of the variance, with Cronbach's alpha values between 0,71 and 0,82 in each factor. These factors are identified with a search for excitement, lack of energy and self-control, perfectionism, assessment anxiety, and lack of assertiveness and confidence. In Table 1, the corresponding items to each factor are shown, their factorial weights and the descriptive values, mean and standard deviation. As extraction method, the principal component analysis was used, followed by a rotation using varimax normalization. The assignment of each item to one of the five factors is shown in bold.

Table 1. *Descriptive values and factorial weights of the items on reasons to procrastinate.*

Factors / Items	Components					M	(DT)
	1	2	3	4	5		
<i>Search for excitement</i>							
• You liked the challenge of waiting until the deadline	,74	,04	,11	,01	,14	1,71	(1,06)
• You looked forward for the excitement of doing this task at the last minute	,69	,06	-,01	,10	,30	1,84	(1,12)
• You were concerned that if you did well, your classmates would resent you	,66	,01	,24	,04	,37	1,66	(1,00)
• You resented people setting deadlines for you	,62	,32	,30	,15	-,06	1,89	(1,07)
• You resented having to do things assigned by others	,59	,25	,16	,40	-,04	1,93	(1,16)

<i>Lack of energy and self-control</i>						
• You just felt too lazy to write a term paper	,09	,68	,30	-,11	,21	2,40 (1,22)
• You had too many other things to do	-,08	,65	-,25	,08	,05	2,81 (1,15)
• You knew that your class mates hadn't started the paper either	,44	,56	,12	,09	-,11	2,17 (1,14)
• You didn't have energy to begin the task	,05	,55	,22	-,21	,38	2,46 (1,09)
• You really disliked writing term papers	,17	,55	,15	,25	,28	2,32 (1,22)
• You waited until a classmate did his/hers, so that he/she could give you some advice	,33	,52	-,03	,27	,25	2,05 (1,12)
• You felt it just takes too long to write a term paper	,16	,49	,39	,16	,15	2,36 (1,26)
• You felt overwhelmed by the task	,14	,48	,19	,31	,20	2,50 (1,15)
• Your friends were pressuring you to do other things	,38	,33	,32	-,06	,23	1,96 (1,12)
• You waited to see if the professor would give you some more information about the paper	,20	,31	,49	,24	,09	2,39 (1,15)
<i>Perfectionism</i>						
• You set very high standards for yourself, and you worried that you wouldn't meet those standards	,12	,04	,75	,20	,16	2,69 (1,31)
• You were concerned that if you got a good grade, people would have higher expectations of you in the future	,40	,02	,64	,09	,17	2,15 (1,27)
• You were concerned you wouldn't meet your own expectations	-,01	,15	,54	,38	,32	2,83 (1,37)
<i>Assessment anxiety</i>						
• You were concerned the professor wouldn't like your work	,23	-,05	,15	,75	,18	2,57 (1,23)
• You were worried you would get a bad grade	,07	,08	,42	,71	,09	3,08 (1,39)
• You didn't think you knew you enough to write the paper	,26	,24	,08	,48	,42	2,38 (1,18)
<i>Lack of assertiveness and confidence</i>						
• You didn't trust yourself to do a good job	,30	,12	,17	,12	,66	1,94 (1,11)
• You had difficulties requesting information from other people	,29	,15	,20	,23	,57	2,12 (1,09)
• You couldn't choose among all the topics	,03	,26	,18	,17	,56	2,53 (1,07)
• There's some information you needed to ask the professor, but you felt uncomfortable approaching him/her	,13	,33	,07	,34	,42	2,47 (1,25)
• You had a hard time knowing what to include and what not to include in your paper	-,26	,34	,10	,47	,32	3,17 (1,03)

Procedure

The application of the PASS test to the participants in the study was performed collectively, gathering them in IT classrooms in their departments. The test was presented and responded through an online survey, hosted in the El Bosque university website. During the application, a researcher was present to clarify any doubts the participants may have. All of them were previously informed of the goals of the study and took part voluntarily in the study. The confidentiality of the collected data was guaranteed.

Data analysis

The analysis initiated with descriptive statistics, calculating the percentage of traditional and non-traditional students that frequently delay the realization of different

academic tasks and perceive that that delay represents a problem. Separately in the two students subsamples, means and standard deviations were calculated for the procrastination indices in the six tasks that the PASS considers. Also, a global index was calculated defined as a mean of those six indices. The same analyses were carried out for the reasons for which the students procrastinate. In this case, the five identified factors were considered in the PASS factorial structure, obtaining the scores for each one of them as a mean of the items that compose them. The mean comparison between both students' groups was made using the t-test, calculating Cohen's d to estimate effect size and assess the magnitude of the observed differences.

Results

The task that is postponed the most by the non-traditional students is meetings attendance, which is usually conducted outside of regular class hours (seminars, tutorships). This activity is always postponed or nearly always by 27,65% of the students (Table 2). The delay in keeping up with weekly readings and performing administrative tasks also stands out, affecting frequently more than a fifth of this group. Comparatively, the percentage of non-traditional students that postpones tasks always or nearly always surpasses that of the traditional group in all tasks. In the case of handing over a final assignment, the percentage of non-traditional students that frequently delay is more than double of that registered for the rest of the students (18,35% vs. 7,45%). See Table 2.

Table 2. *Percentage of students that always or nearly always postpone tasks and perceive this conduct as a problem*

Tasks	<i>Non-traditional students</i>		<i>Traditional students</i>	
	Postpone tasks	Postponing tasks is a problem	Postpone tasks	Postponing tasks is a problem
Handing out a term paper	19,35	43,26	7,45	38,43
Study for an exam	19,82	41,40	11,76	32,55
Keeping up with assigned readings	23,04	41,47	14,90	33,33
Performing administrative tasks	22,12	32,26	13,73	20,78
Meetings attendance (seminars, tutorships)	27,65	29,95	19,22	21,96
Performing general academic tasks	14,75	24,88	9,80	19,61

Regarding the tasks that their postponement represents a problem always or nearly always for non-traditional students, the following stand out, the presentation of a term paper (43,26%), keeping up with assigned readings (41,47) and studying for an exam (41,40). These same tasks are also the ones that are problematic for traditional students, but the percentage is higher in the former group. The most significant difference is seen in the delay of administrative tasks. This situation is always perceived or nearly always as a problem by 32,26% of non-traditional students, and by 20,78% in traditional students. The differences obtained when assessing the problematic character attributed to delaying tasks such as studying for an exam, keeping up with weekly readings or attending meetings also stand out. In all these cases, the differences achieve or surpass 8%.

Different from what happens in an active or strategic delay, the procrastinating conducts imply a delay that generates stress for the individuals'. Following the guidelines provided by Solomon and Rothblum (1984), we have added the scores obtained in the PASS for the extent of the delay and the extent that it represents a problem. That way, procrastination indices are generated for each area and are between 2 and 10. According to this index (Table 3), the procrastinating conducts affect, with higher intensity, non-traditional students in performing a term paper (Mean=6,13; SD=1,55) and in keeping up with weekly readings (Mean=6,09; SD=1,72). In contrast to the traditional students, the non-traditional students show a global procrastination index slightly higher, being the differences statistically significant ($t=4,412$; $p<0,001$; $d=0,459$). Regarding specific tasks, non-traditional students surpass traditional ones when procrastinating administrative tasks ($t=4,048$; $p<0,001$; $d=0,374$) or keeping up with weekly readings ($t=3,671$; $p<0,001$; $d=0,340$), although the effect size stay in discrete levels. See Table 3.

Table 3. *Procrastination indices comparison in academic tasks between traditional and non-traditional students*

Procrastination Index	Mean (Standard Deviation)		t	Cohen's d
	Non-traditional students	Traditional students		
Handing out a term paper	6,13 (1,55)	5,66 (1,48)	3,337 ***	0,310
Studying for an exam	5,85 (1,85)	5,41 (1,68)	2,666 **	0,249
Keeping up with assigned readings	6,09 (1,72)	5,51 (1,69)	3,671 ***	0,340
Performing administrative tasks	5,45 (2,08)	4,69 (1,98)	4,048 ***	0,374
Meetings attendance (seminars, tutorships)	5,67 (1,98)	5,09 (1,98)	3,176 **	0,293

Performing general academic tasks	5,35 (1,78)	5,04 (1,56)	1,998 *	0,185
GLOBAL INDEX (mean of the 6 tasks)	5,75 (1,26)	5,23 (1,18)	4,612 ***	0,459

* $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$

According to the results shown in Table 4, the reasons that mostly justify procrastination in non-traditional students are the ones that refer to assessment anxiety. On a five-point scale, the mean value achieved is 3,03. In turn, search for excitement is the least relevant cause (Mean 1,83). Very similar scores are observed for traditional students, in which the differences in the scores turn out to be non-significant.

Table 4. *Reasons to procrastinate the making of a term paper*

Reasons	Mean (Standard Deviation)	
	<i>Non-traditional students</i>	<i>Traditional students</i>
Search of excitement	1,83 (0,82)	1,79 (0,79)
Lack of energy and self-control	2,40 (0,75)	2,28 (0,68)
Perfectionism	2,54 (1,04)	2,57 (1,05)
Assessment anxiety	3,03 (0,91)	2,91 (0,85)
Low assertiveness and confidence	2,46 (0,82)	2,42 (0,70)

Discussion and conclusions

The results of the present study have shown that the non-traditional student surpasses the levels of academic procrastination when compared to traditional students. It is thus confirmed our initial hypothesis, considering that the effect size for the observed difference of means between the two groups is medium-low. Regarding the type of tasks that are postponed there are similarities between the two groups, as the most postponed tasks are the same for both. The most delayed tasks are the presentation of term papers and keeping up with assigned weekly readings. In the latter, and especially in administrative tasks, the non-traditional students surpass the traditional ones in procrastination levels. According to this, finding the time to make administrative tasks, that often have rigid student service schedules, is problematic especially to those that have familiar or work responsibilities. However, the procrastination problems also differentiate both groups in the academic tasks. For its execution, the lower time availability is a definite obstacle that has to be overcome by those with other occupations. Manthei and Gilmore (2005) found that precisely the lack of time is

perceived by the students as an inconvenient derived from the part-time work, and the problem is aggravated when the individuals' work full time (Choy, 2002).

Previous studies have considered that the occupation of the students in activities aside from the university carries some advantages: increase in communication abilities, relationships with other people, self-confidence and, a lower tendency of wasting time together with a higher ability to manage time (Robotham, 2012). In this trend, it is expected that the non-traditional students, identified mainly by their extracurricular activities, are situated in a favorable situation to avoid procrastination conducts. However, the obtained results in this study do not fit entirely into this scenario. Although the occupation of the students in other activities brings positive effects, we could hypothesize, that a high time dedication to other tasks reduces significantly the availability of time to study, putting at risk the expected benefits of the employment experience. It has to be considered, that the sample used in this study, the non-traditional students that work, are employed full time, while previous investigations have considered students that are employed part-time.

The existence of a negative relation between procrastination and academic performance has been sufficiently illustrated in the recent meta-analysis by Kim and Seo (2015). Recently, Grunschel, Schwinger, Steinmayr and Fries (2016) have corroborated that an increase in the use of self-regulation strategies diminishes procrastination and improves performance. From this relation derives the need of a preventive intervention on procrastinating students, that contributes to improving their expectations of success at college. Considering that the current theoretical models on self-regulation help to understand procrastination as a type of deregulatory behavior (de la Fuente, 2017), an intervention strategy would be to increase the self-regulation strategies.

In our study, we have verified a tendency of increased procrastination in non-traditional students. This highlights their condition as a risk population, susceptible to be affected by problems of failure or abandonment. Although the distance to the traditional students is not significant, it seems advisable that the actions directed to the procrastinating student pay particular attention to the non-traditional one. Even more with the prediction of an increase of this type of students, worldwide, in coming years (Klemencic and Fried, 2007).

It is true that education policies have been favoring the college enrollment of an even broader population, increasing the presence of students that are further apart from the traditional profile. In the case of Latin America and the Caribbean, between the year 2000 and 2010, the university coverage increased by a 40%, which in turn indicates that increasingly, students with diverse profiles are enrolling in college. Paradoxically, the university system has not been adapting enough to the characteristics and needs of this type of students (Gilardi; Guglielmetti, 2011). The support needed for the non-traditional students has to include an adequate treatment of the procrastinating conducts, which affects with more intensity this group of students.

Beyond the self-help books that have been appearing in the Anglo-Saxon ambit (Burka and Yuen, 2008; Ferrari, 2010; Steel, 2012), procrastination has to be the aim of the developed actions in the area of academic orientation by the universities orientation services. Different strategies have been proposed for the treatment of procrastination, making emphasis in the identification of the causes, analysis and control of the distracting elements that compete with the academic tasks, the modification of distorted beliefs that feed them (as an example, assessment anxiety, fear of failure, perfectionism, excessive optimism, low self-efficacy and low self-esteem), or the reduction of the negative feelings it generates (Abbasi and Alghamdi, 2015; Balkis and Duru, 2007, 2017; Schouwenburg et al., 2004). The flexible interventions for the treatment of procrastination using non-in-person training are promising (Glick and Orsillo 2015; Rozental et al., 2014), as well as the incorporation of virtual tutorships by the faculty or the administrative service using chat or non-conventional ways.

According to Klingsieck (2013), the guiding intervention on the procrastinating conducts should undertake a personalized approach, adapted to the profile of each student and based on the reasons to procrastinate. For the non-traditional students that make part of this study, the availability of time for the study is lower. Because of that, the guiding intervention would have to provide help to optimize the time management through guidelines such as setting realistic goals, establish priorities and the use of tools to task planning and for the follow up of their execution.

As in other empirical studies, the obtained results have to be taken with caution, due to the inherent limitations of the study. In the first place, because the definition of the non-traditional student is not unique and depends on context (Kim, 2002), the obtained results

cannot be directly generalized to all types of non-traditional students. Moreover, the study has an inherent weakness that comes from the self-report procedures, which carries a risk of bias in the information provided by the students. However, this limitation could have less importance considering the results of the study by Krause y Freund (2014), who showed that the measures based on self-reports reflect more adequately the academic procrastination construct than its measure from direct observation of the delaying conducts in the academic environment.

In response to the first of the *limitations* that affect the present study, a line for future research would be directed to approach the procrastination problem on a broader variety of universities and assessing different profiles of non-traditional students. Another interesting study ambit is placed in the implementation and evaluation of the guiding interventions for the treatment of academic procrastination, especially the ones directed to first-year non-traditional students.

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