

University Life Adaptation: Construction and Validation of a Measurement Instrument

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Abstract: The objective of this research was designing the Integration into College Life Inventory (I IVU, by its Spanish acronym) for Puerto Rican students. Researchers used retention and attrition models as their theoretical framework. Content validity and face validity were determined by expert opinion. Construct validity was determined using three groups of freshmen students from a private university in Puerto Rico. These groups were listed as the successful group—comprised of students from the Honors Program, the high-risk group—comprised of students admitted to immersion courses, and the average performance group—comprised of regular students who did not belong to the previous groups. An exploratory factor analysis was performed to discover the psychometric characteristics of the I IVU, group items by dimensions, and design the final version of the survey instrument, which includes sixty items divided into four sub-scales divided as follows: (1) academic-organizational, (2) psychological, (3) occupational, and (4) sociological. The I IVU had a reliability of 0.95. Integration was categorized in three levels: high, moderate, and low.

Key-Words: Freshman College Student, Integration into College Life, Student Retention, Student Attrition, Instrument Validation

1. Introduction

Starting university studies is a challenging stage, since the students have to assume new roles and responsibilities for which they are not prepared (Soares, Guisande, and Almeida, 2007). Students face a foreign environment

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that they must overcome to achieve their academic goals. High levels of stress and anxiety can make students vulnerable and cause various maladjustments (Fraser and Tucker, 1997). The integration process is not easy. Factors such as age, past academic performance, social skills, personality, origin, and career choice may cause students to abandon their studies (Londoño, 2009). Díaz (2008) notes that the first semester, particularly the first six weeks, are very difficult for new students. They move from the familiar and safe environment of high school to the impersonal college world in which they must fend for themselves, both in the classroom and in other institutional spaces. According to this author, a student who is not independent will have problems during the transition process.

In view of the problem with integrating students into the college environment, the researchers developed a descriptive exploratory study at a private university in Puerto Rico. An extensive literature review was performed in order to develop a survey instrument for the integration of Puerto Rican students into college life. This instrument was validated by twelve behavioral experts and was administered to three intact groups. The educational institution that was studied has standards for placing students in honor, induction, and regular programs. These standards are part of the collection of placement tests and standardized test results for admission into higher education institutions in Puerto Rico.

2. Problem

The integration of freshmen students into college life is a process of concern for higher education institutions (Tinto, 1993) due to student attrition. Tinto states that student retention is attained when there is a degree of adjustment between the student and the institution, which is acquired through academic and social experiences. Proper integration is one of the fundamental requirements for student retention. Donoso and Schiefelbein (2007) state that the highest rate of attrition is during the first year of college. Cabrera, Thomas, Álvarez, and González (2006) mention that discovering the problematic phenomenon of attrition has led universities to design, implement, and evaluate programs and strategies to increase perseverance rates, improve retention, and reduce student exhaustion.

On the other hand, González and Uribe (2002) report that on average, at least half of students entering post-secondary education abandon their studies before earning their degree. Aguilar (2003) observes that the success or failure of some students is due to poor previous academic training, among other factors. Accordingly, Avedaño (2005) explains that many students do not have the skills required for proper academic performance, including study strategies, general knowledge, managing concepts, and awareness of the intellectual processes that must be performed.

Social integration is important for the student's proper adaptation into the college environment. According to Aguilar (2003), upon starting college, students must not only develop new ways of thinking but also initiate new social and cultural relationships with their teachers and peers. These will lead to new social support networks that cannot always be achieved with large class sizes and groups of students with different characteristics. When moving to a different city, leaving home, and withdrawing from their most intimate emotional environment is added to these adjustments, the situation becomes difficult for students. Aguilar says that by the end of the first year, attrition rates and low grades predict the degree to which students will extend their studies and change career paths and/or colleges, as well as the success of a group of students who will continue their studies without major problems. To that effect, Soares, Guisande, and Almeida (2007) point out that students who have greater support networks adapt better to the foreign situations they face in college. In addition to support from peers and faculty, these authors place importance on family support, and specifically, parental support.

With regards to personal integration, López, Vivanco, and Mandiola (2006) state that during the first year of college, students face problems arising from the transition they experience as adolescents, as well as the transition from high school to college. This causes a sense of loss and at the same time, of new opportunities, which create expectations and dreams that they expect to achieve. Londoño (2009) refers to optimism and positive mental health to achieve proper integration. Lluch, cited in Londoño (2009), defines positive mental health as the interaction of psychosocial factors that enable the individual to achieve a high level of wellbeing. These factors include personal satisfaction, pro-social activity, perceived self-control, autonomy, the ability to solve problems, and interpersonal relationship skills. In terms of optimism, Londoño (2009) classifies it as dispositional. This refers to the role of generalized expectations for achieving the right results, or in other words, demonstrating the will to persevere when faced with adversity.

The institutional aspect is considered a factor that impacts the integration into college life (Tinto, 1993; Donoso & Schiefelbein, 2007). Higher education institutions have a great responsibility to their students, and especially to those in their freshman year. It is important to develop orientation programs for freshmen students, and for them to know about the services offered and how to obtain them. Students need to have their questions answered so their anxiety levels can decrease and they can feel confident when beginning their studies. If this fails to happen, the student will feel lost and frightened, which will interfere with proper academic performance.

Aguilar (2003) states that the transition to college is a complex, multi-factorial process that requires students to undergo multiple changes and adaptations in a period of approximately two years. Among the integration variables the author presents in this study, she mentions confusion regarding

career choice, misinformation about college life, career plans and content, poor previous academic training, feelings of inadequacy and insecurity, and decline in self-esteem.

According to González and Uribe (2005), attrition has social, economic, and emotional consequences, both in students and in educational institutions. According to these authors, these consequences are seen in the expectations of the students and their families in regards to young people's aspirations and achievements, as well as in the economy, both for people and the system as a whole. Aguilar (2003) indicates that the economic impact is concerning, since students' failure to finish their studies implies an investment in training that is unprofitable or less profitable than if their studies had been completed. Also, among the emotional difficulties students face, they can experience feelings of failure and frustration.

According to Dubs (2005), attrition causes higher costs, both for the individual and the institution. Cabrera, Thomas, Álvarez, and González (2006) note that attrition and prolongation of studies are worrisome problems, because of the social, institutional, and personal repercussions they have. Institutions and teachers waste the time, effort, and resources they have invested in students. Díaz (2008) states that those who do not finish their studies are in an unfavorable employment situation compared to those who do. This implies a social problem that can be avoided by addressing and strengthening the process of integration into college life.

3. Objectives and Research Questions

The main purpose of this study was to design the Integration into College Life Inventory (I-IVU) for Puerto Rican students. Objectives and corresponding research questions are:

1. Objective 1: Develop an instrument that is reliable and contains evidence of its validity for measuring integration into college life in Puerto Rican students.

Question 1: What is the level of reliability of the I-IVU in its preliminary and final version?

2. Objective 2: Find the psychometric characteristics that the survey instrument will have in terms of dimensions.

Question 2: Which psychometric characteristics will the I-IVU have?

4. Literature Review

Integration into college life is a process through which a group or individual adjusts their behavior to fit into a social environment or into other groups in order to promote their existence or survival in this environment. Integration does not imply conformity; rather, it can lead to innovation or the

modification of elements that make up a particular culture or society. The university is an educational institution that is involved in economic, social, and cultural development (Avedaño, 2005). Tinto (1993) indicates that it is the degree of adjustment between the student and the institution, acquired through academic and social experiences. He affirms that proper integration is one of the most important aspects for perseverance in college.

Donoso and Schiefelbein (2007) define attrition as a student's deviation from their objectives, which is a prelude to readmission and eventually dropping out. Attrition and retention have been categorized into five major approaches, according to the emphasis placed on the following explanatory variables: personal, family, or institutional. The five approaches identified are psychological, sociological, economic, organizational, and interactionist (Cabrera, Castañeda and Nora, 1992; Braxton, Johnson, and Shaw-Sullivan, 1997, cited in Donoso and Schiefelbein, 2007).

Stoeber (2001) points out that success in college is defined by integration into the environment and academic performance. Londoño (2009) presents some variables associated to proper integration into college life. Some of these variables are change of context, immersion into the new educational system, race, origin, gender, and economic capacity. In addition, integration is measured by performance indicators, permanence, and the student's satisfaction. Other subjective factors include personality, good social skills, good perception of personal effectiveness, previous history of good academic performance, real and perceived social support, positive or focused confrontation of the problem, and optimism.

Londoño indicates that perseverance depends on the positive view of the future that students have an ability to positively respond to stressful situations, and effective social interaction with their peers, their family, and their professors. The author notes that academic failure transcends the educational sphere and directly affects the health of the individual and the community he or she belongs to, as well as the country's social and economic development. Professionals qualified to provide their services to their country would be limited by college students' attrition. Avedaño (2005) notes that in college, students have new, entertaining, and motivating experiences, but problems, fears, and insecurities will also arise. Their fears revolve around failing to achieve the expected performance and not understanding professors.

Soares, Guisande, and Almeida (2007) developed a descriptive study at the University of Minho in Portugal. The purpose of this study was to research the relationship between students' levels of psychological autonomy upon their entrance to college and the quality of academic integration by the end of the first year. They administered two questionnaires at two different times. The first was the Iowa Developing Autonomy Inventory (IDAI) at the beginning of the academic year and the second was the Questionnaire of Academic Experiences (QVA, by its Portuguese acronym) at the end of the

second semester of that same academic year. The sample included 420 students. The results revealed that students have enough positive perceptions regarding their level of autonomy in time management, mobility, and interdependence areas, and lower levels in money management, with some differences noted between genders. On the other hand, students—especially males—who did not have to leave their homes to enter college showed higher levels of academic adjustment. The results suggest that academic integration is associated with students' levels of autonomy, particularly regarding time management, emotional independence from their companions, and interdependence.

López, Vivanco, and Mandiola (2006) conducted a descriptive study with 496 students from the eight schools of the University of Chile's Faculty of Medicine. Its purpose was to describe students' perceptions at the end of their first year, in terms of their integration into college life, the emotional atmosphere, the quality of teaching, their physical environment, and the fulfillment of expectations. These researchers developed a survey instrument that was validated by experts. The instrument included 66 claims that students answered on a five-choice Likert scale. Six variables were defined: integration into college life, emotional environment in relation to their peers and professors, quality of teaching, physical environment in which activities take place, compliance with career expectations, and expectations for the following year.

They found that only 23% of the students managed to integrate into college life. Among the factors affecting them were the amount of content in courses, academic load, and lack of practical guidance on how to study. They considered the emotional environment good, while 75% perceived the quality of teaching as average. The study revealed a preference by students for lectures and participatory classes, group projects inside the classroom instead of outside, learning through laboratory work, and study guides.

Londoño (2009) carried out an investigation in a Colombian university to identify the role of optimism and positive health in predicting the level of adaptation of young people entering college. This investigation used a sample of 77 students of both genders, between the ages of 17 and 26 years old. The students underwent several tests: the Life Orientation Test (LOT), the Optimism Scale by Seligman, the Positive Mental Health Questionnaire, the General Satisfaction Scale, and a registration form for academic information (Londoño, 2009, p. 95). These tests were administered at two specific moments—the first was upon entering college and the second was two years later. A multivariate analysis was performed to determine the predictive level of each variable and its interaction with adaptation. The results reflected that optimism is decisive not only in regards to permanence, but it also predicts the cancellation and repetition of subjects, both considered signs of risk for attrition.

Enoch and Roland (2006) conducted a study with 511 participants who were enrolled in their first year at a university in southern United States. This university has two living environments available for freshmen students: regular dormitories and freshmen dormitories. Freshmen dormitories have programs to assist students with adjustment to college. These programs include the development of activities, mentoring programs, and a learning community. The sample included 259 students living in freshmen residences and 252 students living in regular residences. The purpose of this study was to measure the level of adaptation to college life of both groups. They used an adjustment scale created by Anton and Reed in 1991 composed of 108 representations with eight sub-scales. This scale measured anxiety, depression, suicidal ideation, substance abuse, self-esteem, interpersonal problems, family problems, academic problems, and career decisions.

The data was collected in the residences. T-tests were used to determine if there were differences in overall adjustment and social adjustment. The researchers compared females to males with respect to the level of adjustment and they found that males had a higher level of adaptation than females. A statistically significant difference in the level of adaptation was noted when comparing the two groups. The group living in the freshmen residences had a much greater level of social adjustment than the other group. They found that social connections are determining factors in freshmen students' adaptation to college life. These researchers indicate that college freshmen face numerous changes in their lives, and that the transition can be difficult and confusing. Freshmen students need concrete opportunities to integrate into college life and, at the same time, colleges need to increase retention rates.

These researchers indicate that the university can provide various exciting activities for freshmen students. These activities may be focused towards females as well as males. A residence for freshmen students can help those who are shy by enabling them to interact with each other.

Montalvo (2001) conducted a study at the University of Puerto Rico, Utuado Campus, with 175 freshmen students to determine their adjustment to college life. For the purposes of this study, the author used two instruments. The first was the adapted questionnaire by Astin (1998) and the second was the Student Adaptation to College Questionnaire (SACQ) and its corresponding Spanish translation. On the overall adjustment scale, most of the scores from freshmen students reflected a low level of adjustment. Montalvo explained students' behavior in terms of adjustment by considering three main findings: first, the reasons given for having applied to the institution reflected little commitment on the part of the participating students; second, the admission rate was considered low; and finally, a third of the students were first-generation college students.

5. Methodology

5.1. Research Design

This research was designed to be exploratory and descriptive. Hernández, Fernández, and Baptista (2006) indicate that exploratory studies exist to help us familiarize ourselves with phenomena, investigate new problems, identify concepts or promising variables, set priorities for future studies, or make assertions. Descriptive studies measure, evaluate, or collect data about different concepts (variables), aspects, dimensions, or components of the phenomenon to be researched. In a descriptive study, a series of variables is selected, and their information is measured and collected in order to describe what is being researched.

5.2. Participants

Three groups of freshmen students participated in this research. These groups were composed by successful, high-risk, and regular students. Successful students were freshmen honor students from a private university. Students that were admitted to this program were high academic achievers that finished high school with an average of 3.00 or higher and obtained a score of 1,500 or more in the standardized test used for entrance to college (verbal, mathematics, and English sections). High-risk students were freshmen students admitted to immersion courses. These students were identified by their performance on the standardized test used for entrance to college. Their results were: 400 or less in the standardized test, 22 or less in the mathematics section, 37 or less in the English section, and 44 or less in the Spanish section. The third group was average achievers. Students from this group were regular students that were not eligible for the honors program or the immersion courses.

The study sample was non-probabilistic. In this type of sample, the selection of elements does not depend on probability, but on causes related to the characteristics of the research or on who selects the sample (Hernández, Fernández, and Batista; 2006).

Total sample included 147 students, 99 of whom were female (67%) and 48 were male (33%).

5.3. Procedure

The study was carried out in different phases. Literature related to the development of the inventory was reviewed, and study variables were chosen as follows: psychological, sociological, economic, and organizational-interactive. Once this phase ended, the original version of the ninety-nine-item inventory was presented in a Likert scale format with affirmative and negative statements. The measurement scale was developed according to the level of agreement or disagreement of each item. Scores were assigned to the items so

that they could be rated according to how much attitudes agreed or disagreed with the information of each item. The scale comprised five alternatives: strongly agree (5), agree (4), undecided (3), disagree (2), and strongly disagree (1).

The content and appearance of this initial instrument were examined by twelve experts on human behavior (psychologists, counselors, and social workers). For this purpose, the inventory designed by the researchers was used, and a comments section was included so that the experts could rate its contents in terms of how necessary the item was for measuring the construct. Most of the experts agreed that all the instrument items were essential. However, they recommended adjusting the language so that it could be understood by college students. The researchers followed their recommendations and paraphrased the items to make the study accessible to the target group.

After this stage, the preliminary version of the Inventory for Integration into College Life was written. Authorization from the selected educational institution and the entity responsible for the ethical compliance of the academic institution was requested. The directors or vice-chancellors of the programs were contacted to coordinate an advisory meeting about the research study, and to select the groups of freshmen students that would be recruited. Although the study was classified as minimal risk to participants, on account of the topic, crisis intervention services were arranged with the counseling office in case they were needed, which in the end, they were not. After obtaining the sample, teachers were contacted and a visit to the classroom was arranged.

Once students were informed through a leaflet, they agreed to participate in the study. The distribution of the questionnaire was coordinated by the personnel designated by the office of student affairs. The I-IVU was distributed to a non-probabilistic sample of the three student groups. This sample included the successful group (n=42), the high-risk group (n=48), and the regular group (n=57). The collected data was processed and analyzed using IBM SPSS Statistics 20.0.

Researchers used an exploratory factor analysis (EFA) to determine the possible attributes of the I-IVU. The EFA identified the location of the items according to the dimensions of the inventory. Additionally, the levels of the rating scale were determined according to the student scores—high, moderate, or low integration. This was done by considering the scores that represent the 25th, 50th, and 75th percentiles. Reliability was determined using Cronbach's alpha. Both the preliminary and final version exceeded the established minimum level of 0.70 (Cronbach, 1984). In addition, Cronbach's alpha of the proposed conceptual dimensions and the obtained empirical dimensions were compared.

6. Results

Reliability of the I-IVU

The total reliability of the preliminary version of the I-IVU was 0.95. Table 1 shows both the total alpha and alpha for each dimension. Conceptually speaking, the psychological dimension included three sub-topics: personal-emotional, academic, and occupational. The psychological dimension alpha was researched in general and by area. The total reliability of the psychological dimension was 0.93. The personal-emotional, academic, and occupational areas had an alpha of 0.91, 0.82, and 0.79 respectively. The sociological, economic and organizational-interactive dimensions had an alpha of 0.78, 0.11, and 0.85 respectively.

Dimension	No. Items	Cronbach's Alpha
Psychological		.93
Personal-Emotional	25	.91
Academic	21	.80
Occupational	11	.79
Sociological	13	.78
Economic	7	.11
Organizational-Interactive	22	.85
Total Reliability		0.95

Table 1. Reliability of the Preliminary Version of the I-IVU

Note: This table shows the total reliability and the reliability of each dimension of the survey instrument in its preliminary version.

Reliability of the final version of the I-IVU was 0.95. Table 2 shows the empirical dimensions and the levels of reliability of the final version of the instrument.

Empirical Dimension	No. Items	Cronbach's Alpha
Academic-Organizational	20	.89
Psychological	15	.89
Occupational	10	.82
Sociological	15	.81
Total Reliability		0.95

Table 2. Reliability of the Final Version of the I-IVU

Note: This table shows the total reliability and the reliability of each dimension of the survey instrument in its final version.

Psychometric Characteristics of the I-IVU

The researchers had proposed four dimensions for the inventory. The psychological dimension is divided in three parts: personal-emotional, academic, and occupational. The other dimensions are sociological, economic, and organizational. The first step to determining the psychometric characteristics of the I-IVU was to obtain the inter-item correlations in order to limit the number of items. The criterion used consisted in eliminating the items that had a correlation lower than 0.30. Based on these correlations, the economic dimension was the most affected since it was left with only one item. After the first step, an EFA was conducted to determine in which dimension the instrument's remaining items belonged to. This factor analysis was performed using IBM SPSS Statistics 20.0. The varimax rotation was employed to extract four factors. Table 3 shows an example of the location of items according to the varimax rotation.

Item	1	2	3	4
I control my time.	0.487			
I'm experienced with technology.	0.445			
Lately I've been nervous.		0.602		
I need help from a counselor, psychologist, or social worker in order to facilitate my adaptation to college.		0.655		
I am unsure about my career choice.			0.633	
I open to the acquisition of knowledge for my future profession.			0.404	
It was easy for me to make new friends at college.				0.637
I have excellent communication skills.				0.632

Table 3. Location of Factors According to Varimax Rotation

Note: This table shows an example of the location of items according to the varimax rotation.

Factor 1 grouped items from the academic and organizational-interactive dimensions. Factor 2 showed a tendency to group items from the psychological dimension. Factor 3 grouped items from the occupational dimension. Factor 4 grouped items from the sociological dimension. A table was provided to help rearrange the items and make decisions concerning their contents based on EFA results. Some items were arranged according to EFA results. It was decided that the dimensions of the instrument would be restructured according to these results. The grouped items from Factor 1 were named 'Academic-Organizational Subscale' due to the tendency of both dimensions to be grouped together. As for Factor 2, it remained as 'Psychological Subscale'. Factor 3 was named 'Occupational Subscale'. Factor 4 was named 'Sociological Subscale'. The integration level of the

students was then calculated by frequency analysis and paired with the corresponding I-IVU levels (high, moderate, and low) and percentiles (25th, 50th, and 75th). Table 4 shows the results of this analysis.

Percentile	Score obtained in the I-IVU	Integration Level	Integration Level Description
1-25	1-214	Low	The student does not have the established criteria according to the dimensions of integration into the college environment (academic-organizational, psychological, occupational, and sociological). This represents a potential risk of attrition or low academic achievement.
26-74	215-264	Moderate	The student has surpassed most of the established criteria according to the dimensions of integration into the college environment (academic-organizational, psychological, occupational, and sociological). The student needs to strengthen some areas in order to achieve the optimal level of integration.
75-100	265-300	High	The student has successfully passed all the established criteria according to the dimensions of integration into the college environment (academic-organizational, psychological, occupational, and sociological). The student has been integrated into the college environment.

Table 4. Percentiles of the I-IVU

Note: This table shows the levels of integration that correspond with the 25th, 50th, and 75th percentiles according to EFA results. In addition, a description of what each integration level represents was presented, taking into account the criteria established during this research.

Finally, a final version of the I-IVU was prepared.

7. Discussion and Conclusions

According to the literature review, the instrument meets the content, face, and construct validity. Validity refers to the degree to which an instrument measures what is intended (Hernández, Fernández, & Bastia, 2006). This is not an attribute of the questionnaire. Validity increases or decreases depending on the quality of the evidence that supports it. Validity is a comprehensive, evaluative judgment that dictates whether the interpretations and applications of the results are justified by the evidence produced (Hernández, Fernández, and Batista, 2006; Thorndike and Hagen, 1977). Cronbach (1984) refers to the concept as a process of obtaining evidence to support inferences.

Silva (2009) indicates that the amount of evidence related to the content is the degree to which the measurement represents the measured concept. Validity is determined based on expert opinion before the instrument is used. Ruiz (2007) points out that researchers intend to determine through content validity the degree to which an instrument's items represent the domain or universe of the content of the properties being measured. He indicates that validity cannot be expressed quantitatively, since it is rather a matter of judgment and subjective estimation. The most common procedure consists of selecting experts that will evaluate the instrument items in terms of relevance to or consistency with the content, clarity of writing, and bias. The experts need to be sufficiently informed about the purpose of the test.

In this study, content validity was verified by twelve experts on human behavior (psychologists, social workers, and counselors). They were provided with a validation instrument developed by the researchers, which was then tabulated and taken into account when making relevant decisions. These experts concluded that the I-IVU was able to measure integration into college life.

Aniorte (2011) defines apparent validity as the degree to which a measurement seems to be valid from the point of view of the target group. For this study, the researchers took into consideration what the experts recommended on how to phrase the items so that they could be understood by the university's student population.

Ruiz (2007) indicates that internal construct validity answers to the following question: To what degree does an instrument actually measure a given latent trait of a person, and how effectively does it do so? In order for an instrument to be effective, it must be based on a theory that allows an understanding of how the attribute manifests. Silva (2009) indicates that construct validity includes three stages: a theoretical relation between concepts, a correlation of concepts and analysis, and an interpretation of the empirical evidence. The researchers made an extensive literature review for the development of the instrument. Three student groups were used to test the

instrument. The results underwent an EFA. This enabled the items to be grouped according to how similarly participants answered the questions. In this type of statistical analysis it is expected that the grouped items be consistent with the dimensions that were defined at the beginning and which originated from the literature review. This happened with the I-IVU: most items were grouped by dimension. Some dimensions were merged, leaving the instrument with 60 items and 4 subscales: academic-organizational (20 items), psychological (15 items), occupational (10 items), and sociological (15 items). The I-IVU levels (high, moderate, and low) were established. A confirmatory factor analysis is recommended for the instrument subscales so that they can be used in educational interventions.

Reliability was determined using Cronbach's alpha. Reliability refers to the degree to which the repeated application on the same subject or object generates similar results (Silva, 2009). According to Cronbach (1984), the value of alpha ranges between 0 and 1.0. The Cronbach alpha is calculated as the average of the Pearson correlation coefficients of all the questions if their scores are standardized (Cronbach, 1984). Using IBM SPSS Statistics 20.0, the researchers calculated the Cronbach alpha of the instrument. It was expected that the instrument had a reliability of at least 0.70. The I-IVU exceeded this expectation with a reliability of 0.95 both in the preliminary and final version. In conclusion, the objective of the study was achieved by creating the I-IVU for the Integration into College Life with a high reliability of 0.95.

This study ended with the creation of an instrument that measures the integration of freshmen students into college life at a private institution of higher education in Puerto Rico according with reliability and validity standards. Preliminary cut scores have been provided from this reference group as a starting point to promote further research in this academic field.

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