DOCUMENT RESUME

ED 464 941 TM 033 872

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TITLE The Effects of Institutional Culture on Study Strategies of Hispanic Students as Measured by the "Inventario de Comportamiento de Estudio": The Spanish Version of the "Study Behavior Inventory."

PUB DATE 2002-04-00

NOTE 31p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 1-5, 2002).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150) -- Tests/Questionnaires (160)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Behavior Patterns; *College Students; Community Colleges; Comparative Analysis; Factor Analysis; *Factor Structure; Foreign Countries; Higher Education; Private Colleges; Public Colleges; *Spanish Speaking; Student Characteristics; *Study Habits

IDENTIFIERS Florida; *Learning and Study Strategies Inventory; Mexico

ABSTRACT

The study behaviors of Spanish-speaking students at a large two-year public college in the United States were studied using the Inventario de Comportamiento de Estudio (ECI) (L. Bliss, D. Vinay, and F. Koenigner), the Spanish version of the Learning and Study Strategies Inventory (C. Weinstein, 1987). Behaviors of these students were compared with those of students at both a large public university in Mexico and a small private elite Mexican university. The ECI was administered to a sample of 322 Spanish-speaking students at Miami-Dade Community College, Florida. Factor analysis was used to determine the factor structure of the responses on the ICE. This factor structure was compared with those obtained from the private and public Mexican universities in previous studies by L. Bliss and others, and L. Villa (1998) respectively. The factor structure of ICE responses from the Florida sample resembles the structure obtained from the Mexican public university and is consistent with the factor structure found at the Mexican private university. It appears that students at the Mexican public university and the U.S. community college are more concerned about long-term study behaviors and the need to manage time over the long run, while U.S. college students in general and those at the Mexican private college view time management as more of a day-to-day phenomenon. Across all the institutions, however, the factor structure appears to be consistent, with one factor dealing with academic self-efficacy being, in all samples, the factor that accounts for the most variance. An appendix presents the ECI. (Contains 22 references.) (SLD)

The Effects of Institutional Culture on Study Strategies of Hispanic Students as Measured by the *Inventario de Comportamiento de Estudio*: The Spanish Version of the *Study Behavior Inventory*

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Presented at the 2002 annual meeting of the American Educational Research Association, New Orleans, LA. April 5, 2002

The Effects of Institutional Culture on Study Strategies of Hispanic Students as Measured by the *Inventario de Comportamiento de Estudio*: The Spanish Version of the *Study Behavior Inventory*

The scale of immigration into the United States of people from Latin American countries and the efforts on the part US colleges and universities to integrate immigrants and their children into higher education in this country is obvious on most college campuses. In fact, the 2000 US census showed the Hispanic population of the United States to be 32.8 million people (Therrien & Ramirez, 2000) which represents a 60% increase over the values obtained in the 1990 census (Schmitt, 2001). While part of this increase is certainly due to natural growth in the number of US residents, a large part of it is due to immigration, primarily from Latin America.

Many of these Spanish-speaking immigrants quickly begin taking advantage of low-cost post-secondary education in their new homes and enroll in courses and programs at community colleges. While the transition to higher education is difficult for most students, it is particularly difficult for these immigrant students who may be burdened with difficulties with English language. Many institutions have invested heavily in English as a second language programs to help ameliorate these problems. While these efforts are laudable, they are long-term solutions. Acquiring a second language simply takes a considerable period of time. More immediate help for immigrant students could be offered in the form of help in the development of their study behaviors so that these students can become efficient learners in their new areas of study. Student success can be attributed to improvement of study behaviors and improvement of

remedial reading (McCallum & Peters, 1999) and test-taking skills. However, most study behavior instrument such as the *Study Behavior Inventory (SBI)* (Bliss & Mueller, 1986) and the *Learning and Study Strategies Inventory (LASSI)* (Weinstein, 1987). In attempt to deal with this problem, Bliss, Vinay, and Koeninger (1997) developed the *Inventario de Comportamiento de Estudio.*

The purpose of this study was to investigate the study behaviors of Spanish speaking students at a large two-year public college in the US using the *Inventario de Comportamiento de Estudio* and to compare the patterns of these behaviors with those of students at both a large public university in Mexico and a small private elite Mexican university. The latter consciously attempts to duplicate a United States university within Mexico. Class sizes range from approximately ten to forty students. With some few exceptions, classrooms are built to accommodate no more than forty students. Undergraduate classes tend to meet Monday, Wednesday, and Friday for 50 minutes each class or on Tuesdays and Thursdays for an hour and a quarter each class. Students are presented with a number of grade producing activities such as quizzes, projects, class presentations, and two or three major examinations. The large public university is structured more along the lines of a classical European institution of higher education. Classes are large, with as many as 1,000 students. The method of instruction is primarily lecture and grade producing activities are often limited to a single examination and/or term paper.

Review of literature

The terms "study behaviors" and "study skills" have often been used synonymously in the literature and in scholarly discussions. However, Bliss & Mueller

(1987, 1993) refer to study behaviors as what students actually do and study skills as what things students are able to do. Study behaviors can be assessed using self-report or observations. Students are often placed in prescriptive programs based on the assumption that if they don't exhibit appropriate behaviors then they don't have the requisite skills. Therefore, they are instructed in skills to overcome these inappropriate behaviors when it is the behaviors that need to be modified. Study behaviors can be identified and measured using instruments such as the *Study Behavior Inventory* (SBI), the *Learning and Study Strategies Inventory* (LASSI) and the *Survey of Study Habits and Attitudes*.

The Study Behavior Inventory.

Bliss and Mueller (1987) described the literature concerning research about instruments that measure study skills and study behaviors, pointing out that as early as 1941 Wren published the *Study Habits Inventory*. From this literature they developed the *Study Behavior Inventory – Form D* (1986). This was a 46-item self-report instrument that posed a series of descriptions of behaviors and feelings and asked participants to indicate how much these behaviors and feelings are typical of them. A series of large sample studies using this instrument (Bliss & Mueller, 1986, 1987, 1993) yielded responses with high levels of test-retest reliability. Factor analysis consistently extracted three factors. Factor 1 dealt with feelings of insecurity, low feels of efficacy as a student, and low levels of competitiveness in students when they were confronted with academic tasks. Factors 2 and 3 included behaviors related to the appropriate use of time, making reference to behaviors related to routine, repeated academic tasks such as doing assignments and preparing for classes and those involving more long range planning such as studying for examinations or the preparation of papers and other long term projects.

Correlations of the whole instrument and the various factors with ACT and SAT scores ranged from the high .50's to the middle .60's. Correlations with grade point averages ranged from the middle .60's to the middle .70's.

Spanish Language Instruments of Study Skills and Habits

Brown and Holtzman (1994) describe the *Encuesta Sobre Habilidades*, a self-administered survey of study habits, but the literature on this survey lacks any empirical evidence of validity or reliability, and it does not provide for norm-referenced interpretations of its scores. Numerous studies report using the survey or an adaptation of it (e.g. Losada, 1974), but none of these report evidence of appropriate psychometric properties. Researchers in various Spanish-speaking countries have examined programs that purport to enhance the development of study habits and skills (e.g. Patiño, 1981; Mascare & Valdez, 1982; Sánchez-Díaz, 1985), but many make the common error of failing to draw a distinction between study skills and study behaviors. Others fail to use validated instruments or fail to establish any connection between study skills and/or habits and educational outcomes (Muñoz, 1993). Martínez-Guerro and Sánchez-Sosa (1993) studied the properties of an instrument called the *Cuestionario de Actividades de Estudio* in an attempt to validate a study behavior instrument, but reported that the levels of predictive validity on measures of academic achievement were too low to make the instrument useable. The lack of a validated instrument in the Spanish language for the measurement of study behaviors established the need for the development and validation of the *Inventario de Comportamiento de Estudio* (ICE), the Spanish language version of the *Study Behavior Inventory*.

The Inventario de Comportamiento de Estudio. Bliss, Vanay, and Kroeninger (1996) describe the development and initial validation work on the ICE. The work was done at La Universidad de las Américas (UDLA), a comprehensive university in Cholula, Puebla in México. Two of the authors independently prepared translations. Then a team of eight people consisting of a professor of Spanish, three psychologists, the director of the university's orientation program, a visiting professor who was an expert in educational and psychological measurement, the director of the university's testing program, and a senior undergraduate student in the Department of Educational Sciences reviewed the two translations and worked for approximately 24 hours to redact the two documents into a single translation that they believed was a fair translation of the SBI written in a Spanish that was generic enough to be understood across Spanish speaking countries and cultures.

Like the SBI, the ICE is a 46 item instrument to which participants respond on a four-point scale indicating how often a particular statement might apply to them. Using a sample of 1,046 students at the UDLA, four factors were extracted from the responses. The items in the first three were almost identical with their counterparts in the English language SBI with some few exchanges of items between factors 2 and 3. The fourth factor, which was made up of only two items, contained items that had to do with students' preferences for studying with other students or studying alone. No differences were found between scores of men and women on the entire ICE or on any of the first three factors. Correlations of the scores on the entire ICE and its first three factors with both students' grade point averages and their scores on the Universidad de las Américas

entrance examination ranged from the high .60's to the low .70's. The instrument appeared to function in a manner similar to the *Study Behavior Inventory*.

However, Villa (1998) using a sample of 850 students from a public university in central Mexico found that while a four factor structure was obtained from these students who completed the *Inventario de Comportamiento de Estudio*, a large number of items switched from factor two to factor three while the variables loading highest on factor one remained the same when the results were compared to those obtained by Bliss, *et al.* (1998). The typical total instrument score and the typical scores on the first three factors were not different between men and women nor between students who had attended private secondary schools and those who had attended public secondary schools. Correlations between the total and the first three factor scores of the ICE and the score on an admissions examination taken by all students the academic year prior to their enrollment at the university ranged from the mid .60's to the low .70's. Thus, except for the exchanges of variables between the second and third factor, the properties of the scores on the ICE were similar to those obtained using the Universidad de las Américas sample.

In describing a possible explanation for the differences between the two populations on the second and third factors it may be useful to recall that these factors both describe time management behaviors. They differ in that in the SBI and the UDLA ICE scores the second factor contains behaviors used when preparing for every day, routine academic tasks while the third factor contains items describing behaviors exhibited when students prepare for more long range, single instance tasks. In terms of test taking preparation, behaviors involving preparation for quizzes given during each

class might be found in Factor 2 whereas those behaviors involving preparing for midterm and final examinations might be found in Factor 3. La Universidad de las Américas consciously attempts to duplicate a United States university within Mexico. On the other hand, public universities in Mexico have huge student populations (the Universidad Nacional Autónoma de México in Mexico City has over 100,000 students) and classes of many hundreds that meet in large lecture halls where there is little interaction between the professor and students. Students simply listen to the lecture and read assigned texts. Since lectures are primarily from the texts, many students do not bother attending lectures. These classes generally have only one grade producing activity, which is a final examination or term paper. This style of university life is typical of traditional European and Latin American universities. While the U.S. model is gradually being adopted in many of these countries, this movement has been slow. What is very possible, however, is that successful time management strategies in classes where there are many, almost daily, grade producing activities are likely to be very different from successful strategies in classes where there is a single grade producing activity at the end of the semester and class lectures where professors do not take questions from the lectures are essentially from assigned readings. For instance, reviewing notes before each class may not be as important in these universities as they are at U.S. model institutions. Preparing for examinations may most productively be an every day, routine activity in at U.S. model institutions, but be a long-range activity at European style institutions. These differences in institutional cultures could account for the movement of items between factors two and three in the two populations.

An alternative explanation for these differences in the factor structure of the results at the two institutions is that they are due to home culture of the students. Students who attend public universities in Mexico tend to come from working class and lower middle class homes. The majority of them attended public schools. Those attending the elite private la UDLA are primarily from upper middle class and upper class homes. Virtually all of these students attended private secondary schools, have traveled extensively in the United States, Latin America, and Europe and are at least moderately proficient in English. Virtually all of them drive their own automobiles in a country where the minimum wage is under US$5 per day. The current study is an attempt to begin to gather evidence to investigate these alternatives. Cross-cultural investigations are important for higher education because they have implications for practice.

Methods

Research Design

This study was designed to identify the study behaviors of Hispanic students in the U.S. who have limited English Skills and who are near the beginning of their higher education study at a large urban Hispanic serving community college and to compare them with those of Mexican students who attended an elite, private comprehensive university and Mexican students who attended a large public university in Mexico. Many of the students at this Hispanic-serving community college are non-resident aliens or student visitors from South and Central America who have come to the U.S. to obtain a higher education. Many have been in the U.S. under 5 years and come from a variety of Spanish speaking countries. Most bring elements of their culture to their higher education and many adapt to the U.S. educational culture. Because of the student diversity at the

community college it is a popular place to begin higher education study. Students can take advantage of the many services offered to ESL students and gain the necessary English language to integrate into colleges and universities in the U.S.

Research Setting and Participants

Miami-Dade Community College (MDCC) enrolls more Hispanic students than any community college in the United States. Of the more than 126,000 students who attended the college during the 1999-2000 academic year 64% were Hispanic. While it is true that all students in the United States who identify themselves as Hispanic are not necessarily Spanish speakers, this study does, of necessity only consider the population of Hispanic students who speak Spanish. Sixty-nine percent of students attending the college during that academic year were part-time students. In terms of socioeconomic status, Hispanic students attending MDCC are more like students attending Mexican public institutions of higher education than they are like the Mexican students attending the elite private university.

Procedure

A convenience sample of 322 Spanish speaking students who had earned at least 15 semester hours of credits attending Miami-Dade Community College was obtained based on referrals from faculty. Fifteen different countries were represented by the sample. The Inventario de Comportamiento de Estudio (ICE) was administered to each of these students and the students' grade point averages were obtained from university records. Students were also asked to indicate the country of their origin and the length of time they had been in the U.S.

Materials

The Study Behavior Inventory (SBI) is an instrument that measures the study behaviors of college and university students . It is presently in use at over 300 institutions of higher education in the United States. The *Inventario de Comportamiento de Estudio* (ICE), the Spanish version of the SBI (see appendix), was administered to the sample.

Data Analysis

Factor analysis using a principal components extraction with a varimax rotation was used to determine the factor structure of the responses on the ICE. This factor structure was compared to those obtained from the Mexican elite private university and the Mexican public university to determine if it resembled one of these structures more than the other. The correlations between the students' grade point averages and their scores on the ICE and its factors were also determined. The correlation between the country of origin and the length of time in the U.S. was also analyzed.

Results

Factor Structure

Negatively worded items in the ICE were recoded so that high item scores represented positive study behaviors in the case of all items. A principal components analysis with a varimax rotation resulted in 12 components with eigenvalues greater than 1.00. A scree analysis suggested four components to be use in a restricted model. Forcing four components yielded the factor structure shown in Table 1.

Table 1
Inventario de Comportamiento de Estudio Factor Loading (U.S. College)

Factor 1		Factor 2		Factor 3		Factor 4	
Item	Loading	Item	Loading	Item	Loading	Item	Loading
33	.762	12	.626	18	.592	3	.631
34	.750	6	.608	16	.584	8	.612
32	.743	7	.588	1	.545		
35	.691	30	.580	2	.504		
22	.643	37	.571	44	.492		
42	.607	4	.568	19	.459		
46	.602	26	.568	10	.451		
21	.549	5	.567	15	.358		
25	.547	23	.567	20	.349		
38	-.524	11	.560	6	.3457		
41	.523	17	.534	40	.3319		
39	.514	29	.503				
45	.472	31	.493				
43	.424	9	.469				
13	.387	36	-.455				
24	.359	40	.452				
28	.357	27	.410				
14	.343						

Factor 1 of this structure is almost identical to that found by Bliss, Vinay, and Koeninger (1996) at a private, elite university in Mexico and by Villa (1998) using a sample from a Mexican public institution of higher education. It is also very similar to the first factor found by Bliss and Mueller (1986, 1987, 1993) using the English *Study Behavior Inventory*. This factor is composed of items that dealt with feelings of academic self-efficacy. These include, "Mi preocupación acerca de qué tan bien contestaré los exámenes interfiere con mi preparación y desempeño" ["Worry about how well I will do interferes with my preparation and performance on tests."], "Después de leer varias paginas de alguna lectura, no puedo recordar bien lo que acabo de leer." ["After reading several pages of an assignment, I am unable to recall what I just read."], and "Aunque trabajo hasta el último minuto, no alcanzo a terminar mis exámenes en el

tiempo proporcionado." ["Although I work until the last possible minute, I am unable to finish examination within the allotted time."].

Factor 2 contains items similar to those found in the second factor in the study by Villa. It is consistent with the third factor found by Bliss, Vinay, and Koenenger. This factor contains items describing academic behaviors concerning preparation for very specific, long-range academic tasks. These included, "Cuando tengo dudas sobre como presentar correctamente un reporte escrito, consulto modelos estándar que me sirvan como guía" ["When in doubt about the proper form for a written report, I refer to an approved model to provide a guide to follow."], "Trato de relacionar y aplicar lo que aprendo en un curso con lo que he aprendido en otros cursos" ["I try to carry over and relate material learned in one course to that learned in others."], and "Me esfuerzo por resumir, clasificar y sistematizar los datos aprendidos, asociándolos con el material aprendido previamente" [I try to summarize, classify, and systematize facts learned, associating them with previously learned materials and facts"].

Factor 3 contains items similar to those found in the third factor in the study by Villa. It is consistent with the second factor found by Bliss, Vinay, and Koenenger. This factor contains items describing academic behaviors concerning preparation for routine, everyday tasks. Items included, "Pospongo la redacción de ensayos, reportes y trabajos hasta el último momento" [I put off writing themes, reports, term papers, etc., until the last minute."], "Estudio más para el examen final que durante todo el curso" [I study harder for final exams than for the rest of my coursework."], and "Se me hace difícil esforzarme para terminar mi trabajo en un determinado tiempo; lo dejo incompleto,

deficiente o no lo entrego a tiempo" [I find it hard to force myself to finish work by a certain time; work is unfinished, inferior, or not on time."].

Factor 4 consisted of only two items. These were "Me gusta estudiar con compañeros en algunos de mis clases" ["With some of my courses I like to study with others.] and "Prefiero estudiar solo que con otros" ["I prefer to study alone rather than with others."]. This factor dealing with the social aspect of studying has been found in the two studies involving the ICE, but did not show up in the English version of the *Study Behavior Inventory*.

Relation of ICE Responses to Country of Birth

Participants were asked to indicate the country in which they were born. Those who indicated that they were born outside of the United States were placed into one of three regional areas: 1) Mexico and Central America; 2) South America; and 3) the Caribbean. An analysis of variance was conducted on the overall ICE scores and the scores on each of the four factors using area of birth as the independent variable. The results are shown below. Tables 2 – 5 show the ANOVA source table for the ICE total score and the first three of the four individual factor scores grouping the participants by area of birth. Factor 4 was made up of only two items and was, therefore, not included in the analysis.

Table 2
ANOVA Source Table (Total Scores)

Source	df	F	η	p
Area of origin	2	2.806	.031	.063
error	178	(142.65)		

Note: Values enclosed in parentheses represent mean square errors

There were no differences in the total ICE scores between participants who were born in the different regions.

Table 3
ANOVA Source Table (Factor 1 scores)

Source	df	F	η	p
Area of origin	2	1.800	.020	.168
error	178	(78.62)		

Note: Values enclosed in parentheses represent mean square errors

There were no differences in the ICE Factor 1 scores between participants who were born in the different regions.

Table 4
ANOVA Source Table (Factor 2 scores)

Source	df	F	η	p
Area of origin	2	8.065	.083	<.001*
error	178	(70.07)		

Note: Values enclosed in parentheses represent mean square error
*p<.01

Students born in the Caribbean scored higher on the ICE than those born in South America. There were no other differences on Factor 2 for other pairs of areas.

Table 5
ANOVA Source Table (Factor 3 scores)

Source	df	F	η	p
Area of origin	2	2.101	.023	.125
error	178	(15.01)		

Note: Values enclosed in parentheses represent mean square error

There were no differences in the ICE Factor 3 scores between participants who were born in the different regions.

Relationship of ICE Scores With Number of Years Living in the United States

Pearson's correlations of the total ICE score, the Factor 1 score, Factor 2 score, and the Factor 3 score with the number of years that students were living in the United States were .335, .102, -.063 and .272, respectively. Only the correlations with the total score and the Factor 1 scores were significant at the .05 level.

Relationship of ICE Scores With Grade Point Average

Pearson's correlations of the total ICE score, the Factor 1 score, Factor2 score, and the Factor 3 score with the grade point averages of participants were .695, .603, .603 and .584, respectively.

Conclusions and Discussion

The Factor Structure of the Inventario de Comportamiento de Estudio

The factor structure of the ICE responses when used with this sample of two-year college students in the United States resembles the structure obtained from the responses of Mexican public university students. The first factor, which contains the highest proportion of the total variance, dealt with student feelings of academic self-efficacy and is also consistent with the results found by Bliss, Vinay, and Koeninger (1996) at a private, elite Mexican university. It also appears in Bliss and Mueller's work on the English *Study Behavior Inventory* (1986, 1987, 1993).

Factor 2, a measure of use of time in preparing for long range, specific, academic tasks, appears in all four studies, as well. However, it accounts for the second highest proportion of the variance of the total instrument scores among these US students and in students at the public Mexican university while accounting only for the third highest proportion of the variance at the elite private Mexican university and in the broad based US standardization sample of the English language *Study Behavior Inventory.*

Factor 3 in the factor structure obtained from the present sample appears to be a measure of the use of time in preparing for routine, everyday academic tasks such as preparing for class meetings and studying for quizzes and class recitations. This factor appears as accounting for the third highest proportion of variance with the students at the

Mexican public university, also. However, it accounts for the second highest proportion of the variance of the total instrument scores at the elite private Mexican university and in the US standardization sample.

An interesting phenomenon seems to appear when the factor structure of the scores of the instrument is observed across the four settings noted in this study. The first three factors are found across institutions. What appears to differ is the order of the second and third factors in terms of their accounting for proportions of the variance within the different settings. Specifically, at the US two-year public institution and the Mexican public university, the factor containing behaviors useful in management of time for long term academic tasks seems to account for the second highest proportion of the variance while only accounting for the third highest proportion of the variance at the private, elite Mexican university and in the standardization group for the English version of the instrument. In comparing these two groups it is noted that a small number of items remain in Factor 2 between samples, but that most items that were in Factor 2 in one group appear in Factor 3 in the second group, while most Factor 3 items in the first group move from Factor 3 to Factor 2 in the second. For instance, when comparing Factors 2 and 3 between the US two-year college sample and the private, elite Mexican university it is noted that 11 of the items loading on Factor 2 in the former are found in Factor 3 in the latter with 6 of the items staying in the second factor in both samples. However, all but one of the items in Factor 3 in the public Mexican university and the US two-year college sample are found in Factor 2 in the elite, private Mexican university.

What appears to be happening is that the students at the Mexican public university and the US community college are more concerned about long term study behaviors and

perceive the need to manage time over the long run as concerning them more than the need to manage time day to day while the private university students and US students, as a general group find themselves viewing time management as more of a day to day phenomenon. A tentative explanation for this difference might be found in the effects of socioeconomic status. The students at the private Mexican university and the vast majority of students in US institutions of higher education are full time students whose major occupation is being a college or university student. Since their "jobs" consist primarily of going to classes and getting good grades on a day to day basis, these students may be more likely to see planning for daily, routine tasks as most important to them. They would be most likely, therefore, to view academic tasks that at least theoretically might be seen as relating to long- and short-term tasks as more likely to relate to short-term tasks. So these theoretically ambivalent tasks would go into the short-term group and result in a higher proportion of the variance being found in this group.

Students at Mexican public institutions of higher education and at two-year public colleges in the United States tend to come from working class homes and attend college and university on a part-time basis while supporting themselves and their families with full time employment. Many balance their academic pursuits with concerns about their own children. For these students, the day-to-day planning process is more liable to involve their families than it is to involve academic pursuits. Rather, when these students plan they plan out their activities for the entire semester and center this planning on employment and family demands. These students are more liable relate the theoretically ambivalent tasks to long-term planning behaviors and this would account for their

loading on a factor containing clearly long-term planning behaviors resulting in this factor accounting for a higher proportion of the variance.

To sum up, the factor structure of the *Inventario de Comportamiento de Estudio* across institutions appears to be consistent with one factor dealing with academic self-efficacy appearing in all samples as the factor that accounts for the most variance. Two additional factors deal with long- and short-term planning behaviors and these two factors appear to consist of a group of behaviors which respondents clearly perceive as relating to either long- or short-term planning and a second group of behaviors which respondents at some institutions perceive as being related to short-term planning while respondents at others perceive as being related to long-term planning. A tentative explanation for this phenomenon considers the socioeconomic status of the majority of students at these institutions and the cultural differences this creates within the institution.

Differences by Regions

There were no significant differences by region found on the total *ICE* score or on Factors 1 and 3. A significant effect for area of birth was found for Factor 2 at the .01 level of significance. However, the effect size of this difference was so low (η=.083) that the difference found in mean scores of the Caribbean and South American students cannot be said to have any practical significance. This lack of differences cannot simply be accounted for by acculturation into the U.S. since the median of the time participants had lived in the United States was three years. Rather, the finding is consistent with the idea that it is the socioeconomic status of students, leading to a specific institutional culture that leads to differences in study behaviors among groups of students.

The Relationship of ICE Scores with Time in the United States

The failure of this study to find a relationship between scores on the total *ICE* and its factors and the number of years that students have been resident in the United States supports the notion that study behaviors are a function of institutional culture which is in turn determined, to a large part, by the socioeconomic status of its students. Specifically, the institutional culture will be different in institutions where large portions of students are part-time students with primary concerns about employment and family and at institutions where students are traditional full time students.

The Relationship of ICE Scores with Grade Point Average

The correlations between the total score and the first three factor scores of the *Inventario de Comportamiento de Estudio* obtained from this sample of US two-year college students are significant, but somewhat lower than those found in other populations reported in the literature. This phenomenon could be explained by limited variability of the GPA values. While these ranged from 0.96 to 4.00, sixty percent of the GPAs were 3.0 and above with a value of 4.00 the mode of the distribution.

Conclusions

The *Inventario de Comportamiento de Estudio* appears to provide reliable and valid measures of study behaviors. The factor structure is similar to the ones found in previous studies using the *ICE* and the English language *SBI*. Correlation values between the entire instrument score and the factor scores with student grade point average range from .584 to .695 suggesting the moderate to high relationships between these variables, which would be theoretically expected.

The comparison of the three populations responding to the *Inventario de Comportamiento de Estudio* and the population responding to the English language *Study Behavior Inventory* notes a factor structure with four factors. The first (a measure of academic self-efficacy) and the fourth (a measure of preferences about studying alone or with other people) are consistent across the four populations. Where the populations differ is the in the relative proportion of variance attributable to the two middle factors. Both of these factors deal with management of time. One of them appears to deal with time management required when planning for routine, everyday academic tasks while the second deals with time management when planning for long range, specific academic tasks. With the English language population and the population of students attending the private Mexican university the everyday task factor accounts for the second greatest proportion of variance of the four factors. With the U.S. 2-year institution and the Mexican public university populations, the factor dealing with long range, specific tasks accounts for the second highest proportion of the variance of the four factors. The fact that U.S. students are found in both of the two sets of populations and the fact that there appear to be no differences in scores across the whole instrument or the factors based on area of birth in the U.S. 2-year college sample casts doubt on the notion that the national or home cultures of students accounts for these different patterns. Rather, the data suggest that it is the culture of the educational institution that responds to characteristics of the students that are responsible for this difference. Differences in socio-economic status of students in the two populations result in institutions of higher education where students are primarily full-time or part-time scholars and it may well be that this

characteristic of students results in differences in student priorities which are responded to by institutions of higher education.

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APPENDIX

INVENTARIO DE COMPORTAMIENTO DE ESTUDIO

Leonard B. Bliss
Diana Vinay

Esta encuesta está diseñada para determinar los hábitos y las habilidades que has desarrollado hasta esta etapa de tus estudios. Conocer los resultados de este inventario permitirá ayudar a los estudiantes a desarrollar estrategias más productivas y a los profesores a desempeñar mejor su trabajo.

La información obtenida será estrictamente confidencial, así que, por favor, sé sincero y honesto en tus respuestas.

A continuación se presentan una serie de afirmaciones acerca de hábitos y actitudes que pueden afectar el uso del tiempo de estudio, y en consecuencia tu buen rendimiento escolar. Por favor, contesta de acuerdo a tus verdaderos hábitos y no de acuerdo a lo que pienses que debes hacer ni a lo que hacen los demás.

Cómo responder la encuesta: El inventario consta de 46 oraciones numeradas. Lee cuidadosamente cada una antes de chequear una de las cuatro opciones.

Por favor contesta todas las preguntas, recuerda que esta encuesta se refiere a tus hábitos y actitudes de estudio actuales. Marca cada opción de acuerdo a la siguiente clave:

1. Nunca o rara vez es verdad en mi caso.
2. A veces es verdad en mi caso.
3. Con frecuencia es verdad en mi caso
4. Siempre o casi siempre es verdad en mi caso.

Por favor, contesta primero la siguiente información:

Nombre: _____SS#_____

Institución _____

		1	2	3	4
1.	Distribuyo mal mi tiempo; paso demasiado tiempo en ciertas actividades e insuficiente en otras.....	___	___	___	___
2.	Se me hace difícil esforzarme para terminar mi trabajo en un determinado tiempo: lo dejo incompleto, deficiente o no lo entrego a tiempo.....	___	___	___	___
3.	Me gusta estudiar con compañeros en algunos de mis clases.....	___	___	___	___

1 – Nunca o rara vez es verdad en mi caso
2 – A veces es verdad en mi caso
3 – Con frecuencia es verdad en mi caso
4 – Siempre o casi siempre es verdad en mi caso

		1	2	3	4
4.	Termino mis tareas a tiempo.....	___	___	___	___
5.	Trato de relacionar y aplicar lo que aprendo en un curso con lo que he aprendido en otros cursos.....	___	___	___	___
6.	Copio los diagramas, dibujos, tablas y otras ilustraciones que el profesor pone en la pizarra.....	___	___	___	___
7.	Llevo al día mis tareas realizándolas regularmente.....	___	___	___	___
8.	Prefiero estudiar solo que con otros.....	___	___	___	___
9.	Antes de comenzar a estudiar, organizo mi trabajo, de forma que pueda aprovechar mejor el tiempo.....	___	___	___	___
10.	Cuando se me dificulta alguna tarea, hablo con el profesor del problema.....	___	___	___	___
11.	Me aseguro de entender claramente lo que el profesor espera de mí antes de empezar a preparar mis trabajos, ensayos, reportes, etc.....	___	___	___	___
12.	Cuando por alguna causa inevitable me atraso en el trabajo escolar, repongo las tareas pasadas sin que el profesor me las tenga que pedir.....	___	___	___	___
13.	Se me dificulta expresarme por escrito y por eso me retraso en la entrega de reportes, ensayos, exámenes y otros trabajos.....	___	___	___	___
14.	Recibo críticas de mis profesores porque mis trabajos escritos están mal organizados o mal redactados.	___	___	___	___
15.	Pongo aun lado las correcciones anotadas por el profesor en los exámenes, reportes y tareas sin corregir los errores anotados por el maestro.....	___	___	___	___
16.	Estudio en forma improvisada, sin planeación mayormente, impulsado más por las exigencias de las sesiones de clases más próximas.....	___	___	___	___
17.	Me esfuerzo por aprender más allá de la memorización inmediata.....	___	___	___	___
18.	Pospongo la redacción de ensayos, reportes y trabajos hasta el último momento.....	___	___	___	___

1 – Nunca o rara vez es verdad en mi caso
2 – A veces es verdad en mi caso
3 – Con frecuencia es verdad en mi caso
4 – Siempre o casi siempre es verdad en mi caso

		1	2	3	4
19.	Veo demasiada televisión y eso interfiere con mis estudios..	___	___	___	___
20.	El tiempo que tengo que dedicar a mi empleo afecta mis estudios considerando todos los cursos que estoy tomando.....	___	___	___	___
21.	Los problemas personales con mi familia afectan mi habilidad para concentrarme en estudiar.....	___	___	___	___
22.	Tengo que releer el material varias veces. No entiendo el significado de las palabras la primera vez que las leo.....	___	___	___	___
23.	Me esfuerzo por resumir, clasificar y sistematizar los datos aprendidos, asociándolos con el material aprendido previamente.....	___	___	___	___
24.	Cuando leo algún material, no me fijo mucho en las figuras, gráficas o tablas.....	___	___	___	___
25.	Después de leer varias paginas de alguna lectura, no puedo recordar bien lo que acabo de leer.....	___	___	___	___
26.	Cuando tengo dudas sobre como presentar correctamente un reporte escrito, consulto modelos estándar que me sirvan como guía.....	___	___	___	___
27.	Cuando leo una parte extensa de un libro de texto, me detengo de vez en cuando para repasar mentalmente los puntos principales en la lectura.....	___	___	___	___
28.	Cuando tomo apuntes en clase, me cuesta trabajo identificar los puntos principales; escribo información que después resulta no ser importante.....	___	___	___	___
29.	Después de la clase, regreso a mis apuntes, y repaso y reviso las partes en las que tengo dudas.....	___	___	___	___
30.	Organizo mis apuntes por materias y las mantengo cuidadosamente en un orden lógico.....	___	___	___	___
31.	Antes de asistir a clase, me preparo leyendo o estudiando el material asignado.....	___	___	___	___

1 – Nunca o rara vez es verdad en mi caso
2 – A veces es verdad en mi caso
3 – Con frecuencia es verdad en mi caso
4 – Siempre o casi siempre es verdad en mi caso

		1	2	3	4
32.	Me pongo nervioso y confundido cuando presento exámenes, y no contesto tan bien como sé que soy podría hacerlo.....	___	___	___	___
33.	Salgo mal en los exámenes porque se me dificulta pensar con claridad y planear mis respuestas mientras los tomo.....	___	___	___	___
34.	Se me dificulta identificar los puntos importantes de las lecturas, los cuales después vienen en los exámenes.....	___	___	___	___
35.	Pierdo puntas en los exámenes de falso-verdadero y de opción múltiple porque tiendo a cambiar mi respuesta original, para luego descubrir que tenía la respuesta correcta.....	___	___	___	___
36.	Planeo mentalmente las respuestas a las preguntas abiertas o de ensayo antes de empezar a contestar por escrito.....	___	___	___	___
37.	Cuando me preparo para un examen, estudio el material siguiendo algún orden lógico (de importancia, histórico, de presentación de la clase o del libro de texto, etc.).....	___	___	___	___
38.	Al contestar preguntas en los exámenes, tiendo a descuidar la ortografía y la redacción.....	___	___	___	___
39.	Aunque trabajo hasta el último minuto, no alcanzo a terminar mis exámenes en el tiempo proporcionado.....	___	___	___	___
40.	Si me queda tiempo, me tomo algunos minutos para revisar mis respuestas antes de entregar el examen.....	___	___	___	___
41.	Cuando me regresan el examen, me doy cuenta que mi calificación bajó por errores debidos a mi descuido.....	___	___	___	___
42.	Durante el examen olvido nombres, fechas, fórmulas y otros detalles que realmente sé.....	___	___	___	___
43.	Creo que las calificaciones se basan en la habilidad del estudiante para memorizar datos y no para razonar con lógica el material.....	___	___	___	___
44.	Estudio más para el examen final que durante todo el curso.	___	___	___	___
45.	Creo que podría contestar mejor los exámenes si pudiera presentarlos solo y/o sin límite de tiempo.....	___	___	___	___
46.	Mi preocupación acerca de qué tan bien contestaré los exámenes interfiere con mi preparación y desempeño.....	___	___	___	___

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