Evaluation of students' engagement with PROMES2015 as a university mobility experience

Evaluación de la participación de estudiantes con PROMES2015 como experiencia universitaria de movilidad estudiantil

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Abstract

Student mobility is among the most important internationalization initiatives for higher education institutions. This article describes the influence that student academic mobility has on the training of future professionals at the Autonomous University of Chihuahua (UACH, Mexico) and its students' perceptions toward UACH's Student Mobility Program (PROMES). Under such aim, the research objectives were to determine the opinion of participating students regarding the exchange process, the academic quality of the destination universities, the academic cooperation offices of the destination universities, and toward PROMES' management. This research was quantitative, non-experimental, and transversal. The methodology used was a case study conducted only within UACH using simple random sampling, which was selected from the 170 undergraduate students that participated in PROMES during 2015 (confidence level of 90%, margin of error of 7.5%). The survey consisted in four main sections, which were intended for students to evaluate four factors related to PROMES: a) exchange process; b) academic quality of the destination university; c) support of the academic cooperation offices; and d) PROMES' management at UACH. Results are presented according to four dimensions that the survey evaluated, which include: the exchange process, academic quality of the destination university, support of the academic cooperation offices, and PROMES' management at UACH. These results point toward important statistical correlations regarding the relationship between how students value their academic development and the quality of the facilities in the destination universities, as well as with the quality of the educational programs.

Keywords: Mexico, student mobility, academic mobility, internationalization, higher education.

Resumen

La movilidad estudiantil es una de las iniciativas de internacionalización más importantes para las instituciones de educación superior. Este artículo describe la influencia que tiene la movilidad académica de los estudiantes en la formación de futuros profesionales en la Universidad Autónoma de Chihuahua (UACH, México), y las percepciones de sus estudiantes hacia el Programa de Movilidad Estudiantil de la UACH (PROMES). El objetivo de la investigación fue determinar la opinión de los estudiantes participantes con respecto al proceso de intercambio, la calidad académica de las universidades de destino, las oficinas de cooperación académica de las universidades de destino y la gestión de PROMES. Esta investigación fue cuantitativa, no experimental y transversal. La metodología utilizada fue un estudio de caso realizado solo en UACH. Utilizando un muestreo aleatorio simple, se seleccionaron 170 estudiantes de pregrado que participaron en PROMES durante 2015 (nivel de confianza del 90%, margen de error del 7.5%). La encuesta, dirigida a los estudiantes, constó de cuatro secciones principales para evaluar los siguientes factores relacionados con PROMES: a) proceso de intercambio; b) calidad académica de la universidad de destino; c) apoyo a las oficinas de cooperación académica; y d) la gestión de PROMES en la UACH. Los resultados se presentan según las cuatro dimensiones que evaluó la encuesta, que incluyen: el proceso de intercambio, la calidad académica de la universidad de destino, el apoyo de las oficinas de cooperación académica y la gestión de PROMES en la UACH. Estos resultados muestran importantes correlaciones estadísticas en la relación entre la forma en que los estudiantes valoran su desarrollo académico y la calidad de las instalaciones en las universidades de destino, así como con la calidad de los programas educativos.

Palabras clave: México, movilidad estudiantil, movilidad académica, internacionalización, educación superior.

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Introduction

In 2015, The Autonomous University of Chihuahua (UACH) implemented a Student Mobility Program (PROMES), an initiative that has been growing over the past years and is currently reinventing itself (UACH, 2018). PROMES is managed by the Coordination of International Relations Services. As of 2016, it managed to increase the number of students enrolled in mobility activities from 41 in 2010, to 443 in 2015 and also to "extend its collaboration with 38 countries and 2,026 exchange students and professors" (Cortez, 2016). PROMES' eligibility criteria include that students must be enrolled in an undergraduate program in any of 15 faculties, to have a minimum average grade of 8.5, and they must have completed at least 50% of their credits.

The institutionalization of academic and student mobility within a formal framework at UACH (including PROMES and other initiatives) has been developed in accordance with internationalization policies dictated by national and international organizations, such as: Organization for Economic Cooperation and Development (OECD), United Nations Educational, Scientific and Cultural Organization (UNESCO), the National Association of Universities and Higher Education Institutions (ANUIES), the Mexican Association for International Education (AMPEI) and the Secretariat of Public Education (SEP).

National and international higher education evaluation and accreditation bodies increasingly demand evidence of higher education institutions' (HEI) internationalization processes, and for auditing the work of academic cooperation offices and their programs. In UACH's case, this was recently evaluated and accredited for the period 2015-2020 by the Interinstitutional Committee for the Evaluation of Higher Education (CIIES), which is responsible for evaluating HEI's institutional functions and their academic programs, as well as presenting recommendations for improvement.

This article offers a brief institutional diagnostic on the effects of UACH's student mobility program (PROMES). It is organized in five main sections; the current section contains a brief review about internationalization and mobility in higher education, as well as internationalization and student mobility in Mexico. The second section of this article details the aims, objectives and research design employed in this study, including the description of the survey used. The results and discussion section presents the gathered data and is subdivided according to different levels of analysis, which include: the exchange process, academic quality of the destination university, support of the academic cooperation offices, and PROMES' management at UACH. Then, we provide further insights derived from the data gathered and points toward the correlations found. Finally, the conclusions presented deal with the increase of efforts invested in mobility programs within Mexican universities, the opportunities for further research, and we discuss the value of this article for other universities, both from developing and developed countries.

Internationalization and mobility in higher education

According to Morley *et al.* (2018), «mobility is one of the key mechanisms through which internationalization occurs» (p. 537). Student mobility is an important element for any HEI and it may be even more important than teachers' and researchers' mobility because it provides students with opportunities to acquire valuable benefits from personal and training experiences in international contexts, hence, HEI prioritize student mobility mechanisms (Ferrer, 2012). Guo and Chase (2011) state that «as part of internationalization of higher education, colleges and universities continuously recruit and accept international students (cited by

Jamaludin *et al*., 2017, p. 38). Internationalization programs are beneficial for international students, for their home university, and for the community of the institution they visit, because it improves cultural awareness and intercultural communication (Bista and Foster, 2016).

Setting mobility mechanisms generates interest toward HEI in prospective students that come from upper-secondary educational systems. Hence, HEI devote many resources to promote and publicize their exchange programs, so new students and enrolled students are motivated to participate in exchange activities. According to Jamaludin *et al.* (2017), it is important to monitor the motivation and satisfaction of students participating in mobility programs, because it allows students to take better advantage of their mobility experiences, and if students are more satisfied with their experiences abroad, they are more likely to recommend them to their peers.

International mobility emerged in Europe during the 1980s, as an activity where the brightest and most adventurous students engaged with, at an individual basis (Wächter, 2003). During the 1980s and 1990s, neoliberalism, capitalism and globalization had a worldwide influence (Kim, 2017). Pherali (2012) claims that academic mobility is a consequence of educational globalization and points toward the need of reaching a better theoretical understanding of such phenomenon, given the rich experiences of academics involved in mobility activities, including linguistic, social, and cultural elements. Many countries started to engage in integration projects that were characterized by: being conducted from cost-benefit analysis models, following markets' operations, increasing productivity, and diversifying and adapting nations to the modernization prevailing in the rest of the world (González and Gómez, 2012).

Within such context, educational systems sought to develop balanced mobility models that conciliated economic changes with innovations destined to satisfy human capital needs. For this reason, worldwide higher education subsystems began to manage student mobility programs, with the aim of adjusting to market requirements (González and Gómez, 2012). With a steadily-growing demand and funding support, mobility numbers quickly increased and mobility activities started to be organized by international networks of institutions; as institutions and policy makers believed that «it would somehow be good for the future citizens and professionals in an increasingly internationalized society» (Stronkhorst, 2005, p. 292).

Knight (2005) sees internationalization as the process of integrating the international, intercultural and global dimensions with postsecondary education's objectives, functions and academic offer. Gacel (2000) states that internationalization's objectives must consider the institutional scope and universities' formative function. Such conception sees internationalization as an educational and institutional renewal process, which is obliquely incorporated to the institutional strategies and transcendental functions embedded in universities' culture, mission and vision. Hence, internationalization includes global, international, intercultural, comparative and interdisciplinary dimensions, all of which aim to improve institutions, by optimizing their quality, their teaching programs, research products, and the relevance of graduates' profiles (Voloschin, 2011). Sebastián (2004) states that internationalization allows, by integrating an international perspective, improving institutional processes (e.g. training, research, extension, offer and capabilities), as well as enhancing community's mentalities, values and perceptions, while it also represents a way of disseminating universities' educational levels and milestones.

Internationalization strategies, apart from offering mobility opportunities for students and professors, can include: cultural extension, teaching, academic training, management, patent development and scientific research and publishing (Rodríguez-Bulnes *et al*., 2016). These activities are sources of evidence, which are useful when institutional policies require internationalizing the curriculum, integrating academic groups in international research networks, participating in inter-institutional research projects funded by international cooperation agencies, co-publishing articles with researchers from foreign HEI, providing an international scope to extension programs, and enabling mobility for the teaching, research, administrative and student functions (Voloschin, 2011).

However, if internationalization processes are conducted by an individual area, they will obtain results that are partial and disintegrated from the university community (Voloschin, 2011). Hence, it is essential to understand the inherent transversality of internationalization within the organizational culture of sustainable HEI. Some Latin American universities have understood the need to engage different institutional areas in such processes. For instance, the University of Costa Rica (UCR) includes internationalization within institutional policy and their internationalization actions are aimed at the «generation of contributions for academic reform scenarios, training at undergraduate and postgraduate levels, and evaluation and accreditation» (Varela, 2005, p. 18).

Internationalization and student mobility in Mexico

In Mexico, the first internationalization actions emerged during the post-war period, after the relatively stable and empowered nations sought to export their educational models to peripheral countries (some of which were their former colonies). Knowledge was generated and transferred, especially from developed countries to developing countries, but such phenomenon was conditioned by the *brain drain*; a circumstance originated by an absence of scientific policies and the lack of reinsertion for professionals within their countries (Pallán, 1994, cited by Gacel, 2000). Most Mexican public universities' objectives started to focus on the mobility of academic staff and research cooperation, while private institutions prioritized receiving foreign students first, and then concentrated on their own students' mobility (Gacel, 2000). Cantwell *et al.* (2009) point out that «Mexico is a net sending country. This means that there are more Mexican students who study abroad than students who travel to Mexico to study» (p. 338).

In the 1990s, globalization and the Free Trade Agreement stimulated international cooperation, forcing HEI to find ways of expanding their academic and student mobility flows, as well as conducting other international actions. Concerning Mexico, particularly since the Wingspread Conference, a Trilateral Working Group was formed to foster higher education collaborations within North America and to develop a strategic plan in five basic areas, which was presented in Vancouver in 1993 (Espinoza, 1997).

International experts have proposed within the missions and functions of higher education, that «quality also requires that higher education should be characterized by its international dimension: exchange of knowledge, interactive networking, mobility of teachers and students, and international research projects, while taking into account the national cultural values and circumstances» (UNESCO, 1998, p. 26).

A reflection exercise about academic and student mobility emerged from the XIII National Congress of Educational Research, in Chihuahua (Mexico). This event allowed exchanging experiences, challenges and questions about the impact of mobility programs from various Mexican HEI that also conducted research on the topic. A general review compiled the most relevant information on these proceedings (Flores, 2015). This compilation includes the historical origins of academic mobility within the leading Mexican HEI, which dates back to the early 1990s. This document also mentions the important mobility mechanisms developed, which were coordinated by ANUIES and the SEP. Data from these student mobility initiatives were collected and processed using instruments such as PATLANI in the case of ANUIES (Camino, 2018), and Statistics 911 in the case of SEP.

> PATLANI compares its results with those of Statistics 911. According to this database, 4% of higher education enrollment has had mobility experiences, however, only 2% of enrollment corresponds to incoming population. The results of PATLANI and 911 differ in this last point (...) a problem lies in how the data are generated in the participating HEI and in the non-distinction between undergraduate and postgraduate or types of institution to which the data refer (Flores, 2015, para. 17).

There has been a recent increase in interest and efforts for providing Mexican students with opportunities that include scholarships to study abroad and also to offer international students to come

to Mexico (e.g. University of Windsor, 2018; Secretaría de Relaciones Exteriores, 2018); something that Cantwell, Luca and Lee (2009) state is important for developing countries, which should be senders and receivers of international students. Moreover, a significant proportion of Mexican academics study their doctorate abroad and then return to Mexico to work at academic positions (Bennion and Locke, 2010).

Methods

There are two approaches for characterizing an internationalization model and for measuring internationalization in a given institution. The quantitative-descriptive approach assesses internationalization intensity, by evaluating the number of international cooperation activities within an institution, with respect to its capabilities and potential. Then, the qualitative approach studies the integration of the internationalization process, through the assimilation of new capabilities and creating new opportunities for institutional development. Both approaches are complementary, so we avoided focusing exclusively on a single perspective, which may risk concentrating on a purely descriptive stance, while avoiding the objectives and contents of internationalization itself (Voloschin, 2011). According to the cited author, global analyses of internationalization would include assessing the following:

- The strategic internationalization plan.

- Number of academic programs with international accreditations and double-degrees with foreign universities.

- Incorporation of the international dimension in curricula.

- Academic programs with international collaborations or with foreign professors, and the participation of university's professors in foreign programs.

- Joint research projects, co-publications and networks.

- Internships of foreign researchers in the institution and internships of local researchers abroad.

- Cultural and extension activities.

- Promotion of internationalization activities in the institutional website.

- Language proficiency by professors and students.

- Availability of a social center for foreigners.

- Evolution of the budget dedicated to internationalization.

- Agreements with foreign counterparts and actions conducted within such agreements.

Objectives

Given the above considerations, for our study, we selected to evaluate the aspects that Voloschin (2011) identifies as important when assessing internationalization initiatives and that were present in PROMES. Therefore, the general purpose of this study was to evaluate the general perception of the students that participated in PROMES during 2015; and so, we sought to fulfill four objectives:

a) Determine the opinion of the participating students in relation to the exchange process in PROMES.

b) Determine the opinion of the participating students in relation to the academic quality of the destination universities.

c) Determine the opinion of the participating students in relation to the academic cooperation offices of the destination universities.

d) Determine the opinion of the participating students in relation to the management of PROMES.

Research design

This research was quantitative, non-experimental, and transversal. The research procedure consisted on developing the survey, select the sample from the total number of students that successfully finished their mobility activities, having the selected students (through sampling) complete the survey, and then analyze the data gathered through the survey by using the IBM SPSS Statistics software.

The methodology used was a case study conducted only within UACH using simple random sampling, which was selected from the 170 undergraduate students that participated in PROMES during 2015 (Table 1 presents the distribution of the total of students by faculty) and fulfilled the characteristics of being a probabilistic sampling with a confidence level of 90%, a probability of success of 50%, a margin of error of 7.5%, and the selection of the sample was carried out in a simple random way by means of the table of random numbers. Such sample consisted of a total of 71 students.

Table 1. Population of students participating in PROMES 2015.

Faculty	2015-1	2015-2	Total
Accounting and Administration	5	12	17
Medicine and Biomedical Sciences	2	0	2
Zootechnics and Ecology	1	11	12
Engineering	6	2	8
Law	4	14	18
Agrotechnological Sciences	12	10	22
Chemical Sciences	5	4	9
Political and Social Science	10	17	27
International Economy	0	5	5
Philosophy and Letters	5	6	11
Nursing and Nutriology	2	3	5
Arts	7	2	9
Physical Culture Sciences	3	10	13
Odontology	6	4	10
Agricultural and Forestry Sciences	0	2	2
TOTAL	**68**	**102**	**170**

The number of participating students is not proportional to the total number of students enrolled in each faculty, because access to PROMES depends on factors such as students' personal motivation, the dissemination of the program within each faculty, and students' fulfillment of the program's eligibility criteria. The data collection instrument used was a survey that required students to rate each item using a scale from one to ten, where one represented the lowest score and the highest was ten; such rating scale was used throughout the survey for students to rate each item. The survey consisted in six parts, the first one had demographic questions such as sex, faculty, destination university, date of birth and exchange period dates. The following four sections of the survey were intended for students to evaluate four factors related to PROMES. These factors were: a) exchange process; b) academic quality of the destination university; c) support of the academic cooperation offices; and d) PROMES' management at UACH. The last question asked students to provide a general rating to PROMES from one to ten. These surveys were applied at the Coordination of International Relations Services and for the students that were not available to respond in person, it was applied through e-mail.

Regarding ethical considerations, this study did not pose any psychological or physical risk. Students' details that would be needed to identify them are not shared outside of the staff responsible for PROMES, as this research only presents the number of students going to a certain institution, but without the names of the students, the identification of a single student is not possible. The survey communicated the purpose of the study to participants, and it contained a statement ensuring them that their details cannot be used for identifying them. The purpose of the survey was merely academic and in no way the identity of respondents was disclosed. Apart from the staff involved with the mobility program, third parties cannot identify students' identities, as the administrative details of students' names and where they went for mobility purposes was not and will not be shared with anyone outside PROMES' staff.

Results and discussion

The random sample used consisted of students from all faculties (see Table 2). Regarding gender, 50% of the respondents were female. Regarding their ages, they ranged from 20 to 28 years old, the age group that concentrated the largest number of students was from 21 to 23 years old, with an accumulated percentage of this group of 73.6%. Three students did not specify their age. Regarding measures of central tendency and dispersion, the average was 22.5 years the standard deviation was 1.585, a relatively low deviation, which indicates certain homogeneity of the students who participated in PROMES2015.

Table 2. Students surveyed by faculty.

Faculty	Frequency	Percentage	Percentage valid	Percentage accumulated
Political and Social Sciences	18	25	25	25
Accounting and Administration	9	12.5	12.5	37.5
Arts	1	1.4	1.4	38.9
Philosophy and Letters	4	5.6	5.6	44.4
Odontology	2	2.8	2.8	47.2
Medicine and Biomedical Sciences	1	1.4	1.4	48.6
Nursing and Nutrition	2	2.8	2.8	51.4
Physical Culture Sciences	5	6.9	6.9	58.3
Faculty of Chemical Sciences	5	6.9	6.9	65.3
Faculty of Engineering	3	4.2	4.2	69.4
Faculty of Zootechnics and Ecology	3	4.2	4.2	73.6
Agrotechnological Sciences	9	12.5	12.5	86.1
International Economy	2	2.8	2.8	88.9
Law	8	11.1	11.1	100
Total	**72**	**100**	**100**	

Table 3. Variables 1 to 5 of the exchange process.

	I received avant-garde academic education	I can adapt to high levels of demand	It improves my academic and professional profile	I can integrate theoretical and practical activities	I updated in disciplinary debates of my career
Average	**9.28**	**9.07**	**9.15**	**9.21**	**9.08**
St. Dev.	1.024	1.167	1.183	.918	1.471
Minimum	6	5	4	7	0
Maximum	10	10	10	10	10

The exchange process

The survey contained 15 items related to the exchange process. In order to easily visualize the data given the space constraints of this article, statements were separated into groups of five. The first five variables analyzed were the following: a) I received avant-garde academic education (highest average); b) I can adapt to high levels of demand (lowest average); c) it improves my academic and professional profile; d) I can integrate theoretical and practical activities; and e) I updated in disciplinary debates of my career (see Table 3). The most important value for the analysis is the average, so it has been highlighted in bold in the table and it can be seen that the average scores given to these five variables are all above nine.

The next group of five variables were: a) I improved my performance as a student (highest average); b) I improved my grades (lowest average); c) the exchange process encouraged my dedication and responsibility in future studies; d) the exchange process broadened my perspective of pursuing a career as a researcher; and e) the exchange process stimulated my interest in extension activities (see Table 4). Within these variables, the statement *I improved my grades* was rated with an average of 8, which could mean that for some students, mobility might have caused them to overlook their studies, thus generating a drop in their grades. However, and interestingly, the variable *I improved my performance as a student* had the highest average, so students might understand that many elements conform their *performance*, not just their grades.

The last grouping of the survey's first part included the last five variables, namely: a) encouraged my interest in generating publications; b) generated contacts with foreign teachers or researchers; c) I perfected or learned another language (lowest average); d) being curricularly valued in the labor market; and e) being valued for a graduate scholarship (highest average) (see Table 5). Interestingly, in this group of variables, the data with lower averages are observed and none of the evaluated variables was rated higher than 9. The variable with the lowest average was about learning another language, which is explained by the list of institutions were students had their mobility activities (see Table 6), as most of them are from Mexico and other Spanish speaking countries. In fact, only 8 respondents opted for mobility in a university belonging to a country with a language other than Spanish; so such low rating does not necessarily mean that it was seen as a negative aspect. Finally, a global average was calculated for the exchange process, integrated by the 15 variables of the first block of the measurement instrument. This resulted in an overall score of 8.83.

Table 4. Variables 6 to 10 of the exchange process.

	I improved my performance as a student	I improved my grades	Encouraged my dedication and responsibility in future studies	Broadened my perspective of pursuing a career as a researcher	It stimulated my interest in extension activities
Average	**9.42**	**8.24**	**9.35**	**9.35**	**9.22**
St. Dev.	.868	1.780	.995	.987	1.103
Minimum	6	3	6	6	6
Maximum	10	10	10	10	10

Table 5. Variables 11 to 15 of the exchange process.

	Encouraged my interest in generating publications	Generated contacts with foreign teachers or researchers	I perfected or learned another language	Being curricularly valued in the labor market	Being valued for a graduate scholarship
Average	**8.50**	**8.58**	**6.28**	**8.72**	**8.96**
St. Dev.	1.529	1.897	3.485	1.840	1.816
Minimum	4	1	1	1	1
Maximum	10	10	10	10	10

Table 6 presents the complete list of participating universities. There were 8 cases in which students left the question about their destination university in blank, which may point toward the need of supervising the application of the survey to ensure this answer is always provided. The rest of the answers, which are valid, indicate that there were 17 different destination universities located in different parts of the world. Administratively, these data also indicate that there is an arduous task involved in sustaining mobility initiatives with such universities and for incrementing their number, because each case implies a separate negotiation and signature of agreements between UACH and each destination university.

Academic quality of the destination university

The survey contained three statements that measured the academic quality of the destination university: a) quality of teaching at the destination university (highest average); b) quality of research at destination university; and c) quality of infrastructure in destination university (lowest average). Table 7 summarizes the results. As it can be seen, students expressed a generally satisfactory rating of the destination universities, and an average of less than 9 was given to the infrastructure quality variable. These data raised the need to identify which universities provide the best and the worst evaluations. As such, there are several universities with perfect ratings. Universities with low ratings were (from the lowest): University of Buenos Aires (Argentina), University of Valparaíso (Chile) and University of Oviedo (Spain). However, these ratings could imply biases, since in the cases of Valparaíso and Oviedo, only one student had their mobility activities at these universities. A global average was calculated to evaluate the quality of the destination university, considering the three variables that were included for this purpose (see Table 7), which resulted in a score of 9.09.

Support of the academic cooperation offices

The survey contained four statements that sought to evaluate the support of the academic cooperation offices at their destination universities, which included: a) reception at the destination university (highest average); b) orientation at the destination university; c) follow-up on the stay at the destination university (lowest average); and d) logistical support at the destination university. Table 8 summarizes the results obtained. The reception and orientation at the destination university were rated with an average higher than 9.3, so it can be considered satisfactory. In the case of follow-up and logistical support, the rating dropped, indicating that the initial attention granted for receiving and guiding students might have dropped, once they started their activities.

Table 6. Universities of destination foreign mobility.

University	Frequency	%
Not specified	8	11.1
Universidad de Buenos Aires	7	9.7
Universidad Nacional Autónoma de México	7	9.7
Universidad Federal do Rio Grande do Sul	7	9.7
Universidad San Sebastián	6	8.3
Universidad Autónoma Metropolitana	4	5.6
Universidad de Granada	4	5.6
Universidad de Guadalajara	4	5.6
Universidad de Talca	3	4.2
Universidad de Antioquía	2	2.8
Universidad de Artes, Ciencias y Comunicación	2	2.8
Universidad del Oeste de Santa Catarina	2	2.8
Hankuk University of Foreign Studies	1	1.4
Instituto Tecnológico y de Estudios Superiores de Occidente	1	1.4
Pontificia Universidad Javeriana	1	1.4
Sungkyunkwan University	1	1.4
Universidad Autónoma Benito Juárez de Oaxaca	1	1.4
Universidad Autónoma de Buenos Aires	1	1.4
Universidad Autónoma de Guadalajara	1	1.4
Universidad Autónoma Metropolitana Unidad Xochimilco	1	1.4
Universidad de Cádiz	1	1.4
Universidad de Lima	1	1.4
Universidad de Oviedo	1	1.4
Universidad de Valparaíso	1	1.4
Universidad de Viña del Mar	1	1.4
Universidad del Norte	1	1.4
Universidad la Salle	1	1.4
Universidad Rey Juan Carlos	1	1.4
Total	**72**	**100.0**

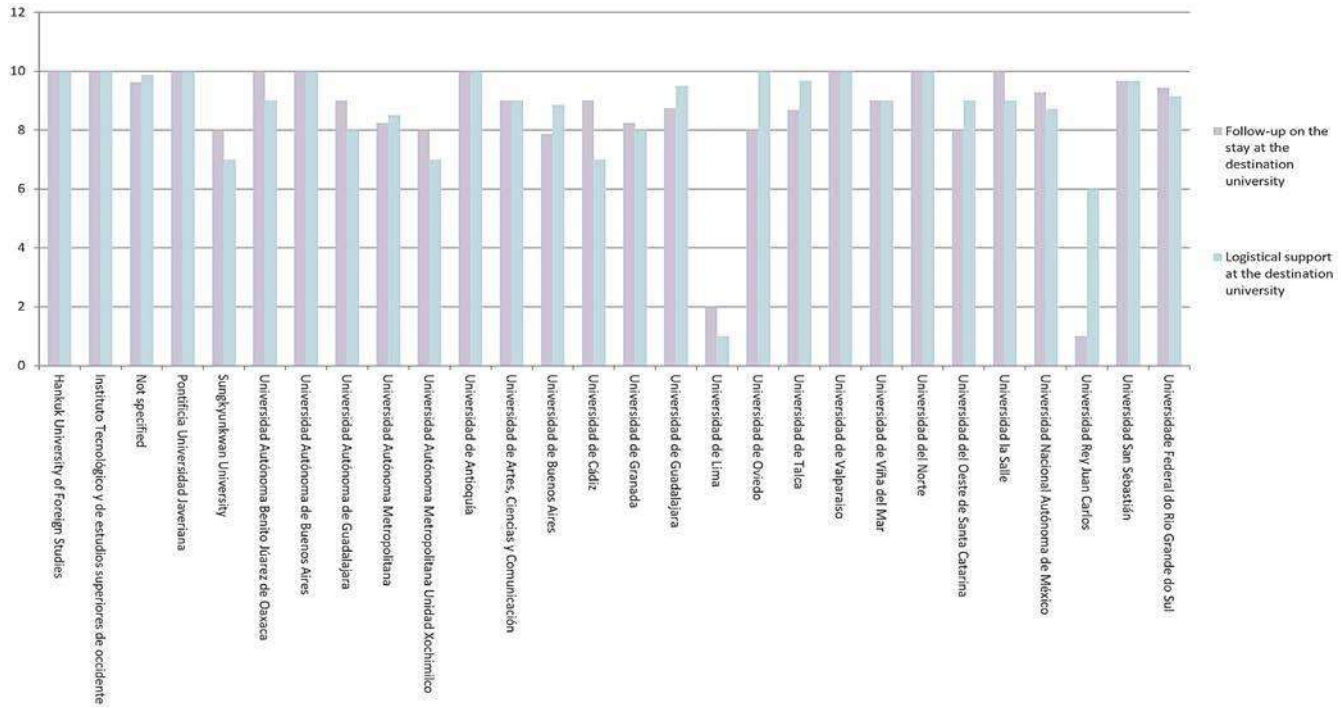
Table 7. Variables 1 to 3 the academic quality of the destination university.

	Quality of teaching at the destination university	Quality of research at destination university	Quality of infrastructure in destination university
Average	**9.36**	**9.25**	**8.68**
St. Dev.	1.011	1.031	2.013
Minimum	6	6	2
Maximum	10	10	10

Table 8. Evaluation of student exchange offices of the destination university.

	Reception at the destination university	Orientation at the destination university	Follow-up on the stay at the destination university	Logistical support at the destination university
Average	**9.42**	**9.32**	**8.83**	**8.97**
St. Dev.	1.242	1.265	1.869	1.565
Minimum	1	1	1	1
Maximum	10	10	10	10

Figure 1. Quality of monitoring and orientation of the destination universities.



With the purpose of determining if the quality of the follow-up and orientation of students decreased globally, or if the phenomenon was presented at a specific university, we prepared Figure 1, which shows several universities with perfect ratings, but it also shows that University of Lima and Rey Juan Carlos University stand out with very low ratings. A global average was calculated when evaluating the support of the academic cooperation offices at destination universities, these were integrated by the 4 variables of the third block of the survey (see Table 5), with an overall score of 9.13.

PROMES' management at UACH

The survey contained ten statements intended for evaluating students' perception of the management of UACH's Student Mobility Program. The variables were divided into two blocks of 5 (see Tables 9 and 10). The first block contains the following variables: a) dissemination of mobility information at UACH (lowest average); b) dissemination on UACH's website; c) information about the university of destination; d) availability of administrative information; and e) guidance regarding aspects of mobility (see Table 9).

Although ratings were satisfactory, none of these variables were evaluated with an average higher than 9, which could represent areas of opportunity for the dissemination of information about the program. The first three variables focus on information dissemination processes and were evaluated with the lowest ratings. The variable related to orientation was slightly better rated than the other four. The variables of the second block include: a) accompaniment in the procedures (highest average); b) follow up and contact during stay; c) reception of grades obtained at the destination university; and d) sending grades to your academic unit (lowest average).

Variables in this second block did not get ratings above 9 either, so these issues also represent areas of opportunity. In the case of these variables, the lowest rated has to do with the reception and delivery of grades obtained by the student at the destination university; hence, it indicated that UACH's administrative procedures related to grades might need to improve. The last single question of the survey asked students to provide a general rating for PROMES, which received an average of 9.04. The analysis of this variable is included in Table 11.

Table 9. Evaluation of PROMES' management at UACH.

	Dissemination of mobility information at UACH	Dissemination on UACH's website	Information about the university of destination	Availability of administrative information	Guidance regarding aspects of mobility
Average	**8.36**	**8.51**	**8.42**	**8.64**	**8.99**
St. Dev.	1.916	1.627	1.676	1.833	1.552
Minimum	1	3	3	1	1
Maximum	10	10	10	10	10

Table 10. Evaluation of PROMES' management at UACH (cont.).

	Accompaniment in the procedures	Follow up and contact during stay	Reception of grades obtained at the destination university	Sending grades to your academic unit
Average	**8.97**	**8.36**	**8.30**	**8.29**
St. Dev.	1.644	1.901	2.403	2.305
Minimum	1	2	0	0
Maximum	10	10	10	10

Table 11. PROMES' general rating.

Statistical	
Average	**9.04**
St. Dev.	1.236
Minimum	5
Maximum	10

As shown in Table 11, the overall average rating was 9.04, which in general speaks of a good perception. In order to contrast this opinion, the global average of the 31 study variables was also calculated (see Table 12).

Table 12. Global average of the 31 variables (without counting PROMES' general rating).

Statistical	
Average	**8.83**
St. Dev.	.800
Minimum	6
Maximum	10

The averages obtained by in general rating for PROMES and for the 31 variables have a very narrow difference. This coincidence raised the question about the existence of some correlation between the general rating given by the students to PROMES with the rating granted to the 31 variables analyzed. In order to determine if there was any correlation, we proceeded to obtain the Pearson correlation coefficient. When calculating such correlation, a value of .705 was obtained. This value is between the 0.60 = <r <0.80 interval, which in the case of the social sciences can be interpreted as pointing toward a high correlation. This shows that, in general, respondents answered the survey with sincerity and this also helps to validate the data gathered.

As a summary, with the data obtained from the previous analyzes, the sections of the survey, ordered by their average rating (from higher to lowest), were: a) support of the academic cooperation offices (9.13); b) academic quality of the destination university (9.09); c) PROMES' general rating in a single question (9.04); d) the exchange process (8.83); e) global average of the 31 variables, without counting PROMES' general rating in a single question (8.83); and f) PROMES' management at UACH (8.48). Interestingly, the two aspects that exclusively concern the destination universities (academic quality and support of the academic cooperation offices), there was a score higher than 9.

At the moment calculating correlations, some values that are significant for this research were detected. Demographic variables such as age and sex do not correlate with the different ratings, but an interesting correlation was found among the variables *it improves my academic and professional profile* and *being curricularly valued in the labor market*. The value found was .641, which is considered a high correlation and establishes a link between the perception of the student in relation to the value of PROMES for improving their professional and work opportunities. Such corre-lation is interesting, because it indicates that students primarily value formal issues rather than substantive ones and this could guide the efforts undertaken to improve UACH's internationalization program.

The quality of education and research in the destination universities did not show important correlations with other variables. However, an unexpected result was obtained, since the only high correlations were related to the variable *quality of infrastructure in the destination university*. The correlations found were with the variables *it improves my academic and professional profile* (.595) and *being curricularly valued in the labor market* (.649). This suggests that, while students perceive better quality in the infrastructure of the destination university, they evaluate better their own academic, professional and curricular value in the labor market. PROMES' general rating was also correlated with the rest of the variables to identify which of them would have a closer relationship (see Table 13).

Table 13. Pearson correlation for PROMES' general rating with other variables.

General qualification of the Mobility Program	Pearson Correlation
Dissemination on UACH's website	.674
Availability of administrative information	.623
Follow up and contact during stay	.757
Guidance regarding aspects of mobility	.621

Table 13 shows the correlation between PROMES general score and the variables measured, which include the information displayed on the UACH's website (UACH, 2018), the availability of the administrative information that is offered to students wishing to participate in the program, the follow up and contact during stay, and the guidance regarding aspects of mobility. It is not so usual for a social sciences study to find so many positive correlations. This is due to a certain congruence in students' responses and the nature of the questions that requested a rating, so they were analyzed mainly based on the calculation of measures of central tendency and dispersion; unlike other research, which concentrates on analyses of the distribution of frequencies. Moreover, we calculated the Cronbach alpha for all 31 variables under study, to test their internal consistency, and it resulted in 0.894. When we eliminated the variable *I perfected or learned another language*, which was the variable with the lowest average score because most students traveled to other Spanish speaking universities (see The exchange process section), alpha increases to 0.909. Both alpha scores point toward excellent internal consistency and reliability among scores for the variables measured.

We conducted a factor analysis using the Kaiser-Meyer-Olkin test (KMO), finding a coefficient of .684. In a factor analysis, it is recommended to use values from .5 onwards (Romo-González & Tarango, 2016). However, we eliminated two variables, which had the lowest value within the anti-image matrix: *I improved my grades* (with a coefficient of .363) and *I perfected or learned another language* (.319). When we conducted the KMO again, without the mentioned two variables, we found a coefficient of .745, which is considered enough to accept the factor analysis.

We also conducted a Bartlett test of sphericity, which presents a zero significance; this also indicated that our factor analysis is useful. In the analysis of total variance explained we chose a total of four factors which have a theoretical relationship among them and explain 63.44% of the variance. In this way, we obtained the rotated component matrix using the analysis of principal components as the method of extraction, the Varimax as the rotation method, and we conducted Kaiser normalization. To improve visualization, we considered only coefficients with an absolute value larger than .4. Table 14 shows the results of this analysis.

Theoretically, component 1 explains elements related to information at the various stages of the mobility program. Component 2 relates the perception of a better personal future with the infrastructure of the chosen university, which is congruent with the Pearson coefficients found. Component 3 relates elements about the support of the destination universities and Component 4 explains the perception regarding the exchange of grades between the universities involved in the mobility process.

We can also relate our results with remarks on the importance of motivation and satisfaction for mobility programs (Jamaludin *et al.*, 2017). As such, we interpret that students might have been satisfied with their mobility experiences, given the ratings they provided to the questions related to their destination universities. Hence, they might recommend these universities to their peers on the basis of their characteristics and not solely because of their academic programs. We might hypothesize with these results that students could be focusing more on admiring the characteristics of other universities before those available at their home institution, and thus not paying too much attention to the quality of the academic programs at other universities. Conversely, academic programs at other universities may actually have a very good level because of the universities' resources behind them. As suggested by Bista and Foster (2016), universities should provide the resources necessary for students to succeed. This includes support services, infrastructure, programs and policies.

Aspects related to the support of the academic cooperation offices at destination universities, specifically those associated with the reception that students get, can influence their motivation and satisfaction with the mobility program. As Bista and Foster (2016) indicate, the university administration is responsible for the successful implementation, regulation, and support of mobility initiatives.

Table 14. Rotated component matrix.

Rotated component matrix	Component			
	1	2	3	4
Availability of administrative information	.856			
Follow up and contact during stay	.854			
Guidance regarding aspects of mobility	.852			
Information about the university of destination	.794			
Dissemination on UACH's website	.774			
PROMES general score	.773			
Accompaniment in the procedures	.749			
Dissemination of mobility information at UACH	.739			
Being valued for a graduate scholarship	.458			-.400
It improves my academic and professional profile		.864		
I can adapt to high levels of demand		.842		
I received avant-garde academic education		.775		
Being curricularly valued in the labor market		.766		
I can integrate theoretical and practical activities		.756		
Quality of teaching at the destination university		.736		
Quality of infrastructure in destination university		.685		
I updated in disciplinary debates of my career		.576		
It stimulated my interest in extension activities		.474		.463
Quality of research at destination university		.432		
Generated contacts with foreign teachers or researchers				
Encouraged my dedication and responsibility in future studies				
Orientation at the destination university			.899	
Logistical support at the destination university			.873	
Reception at the destination university			.850	
Follow-up on the stay at the destination university			.832	
Encouraged my interest in generating publications		.426	.590	
I improved my performance as a student			.548	
Reception of grades obtained at the destination university	.415			.726
Sending grades to your academic unit				.726
Broadened my perspective of pursuing a career as a researcher				.411

Conclusion

As we highlighted before, there has been an increase both in interest and efforts from national and international stakeholders for enhancing mobility programs with and within Mexican HEI. As such, this research is the first effort at publishing UACH mobility program' conditions in international and peer reviewed journals, which is important at advancing and developing a professional discussion from the perspective and experiences of Mexican institutions.

We have detected that there is very limited scientific literature about student mobility programs in Mexican universities and from the perspective of Mexican students studying abroad. The case we found deals with the internationalization initiatives from the Autonomous University of Nuevo Leon (Rodríguez-Bulnes *et al.*, 2016), which reflects upon the policies implemented by this university regarding internationalization, international accreditation, mobility of students and professors, the impact in the academic community and in the social, local, national and international contexts.

This line of research will be complemented with posterior follow-up to students involved in PROMES and their contributions to their academic and work lives. Further research involves setting up focus groups with a representative sample of both students and alumni that participated in PROMES, in order to determine the program's effectiveness and implementing improvements, as well as achieving a greater level of control over the program. Such line of research would could strengthen the relevance of this research, by developing a strategy that should be conducted with the alumni that studied abroad through PROMES, in order to analyze and further determine if there is a correlation among alumni's professional success and their academic mobility experiences. Similarly, another possible area of opportunity would require the analysis of the results and experiences gathered by students during their mobility activities. Moreover, an additional research instrument could be proposed to partner institutions in order to evaluate the impact of institutional mobility experiences of incoming foreign students. This will help comparing and contrasting study abroad occurrences in diverse HEI and correlate findings among partner universities. Strengthening collaboration ties, through joint overseas research, may help redefining institutional academic mobility's scope of influence in local studies, with a broader perspective of diverse cultural and ethnic backgrounds. This could help avoiding ethnocentrism prejudices in the institutional research that focuses on domestic cultures.

Given that information issues had the greatest correlation with the overall score of the program, we consider important to disseminate the present and future research on this area in the scientific literature and thus make them available to the various stakeholders. Such action will contribute to the mobility program's objectives, which include ensuring its exponential growth; according to the international trend of knowledge sharing and production (Kim, 2017). Although this article presents a local experience from a Mexican university, the evaluation of PROMES as a student mobility program can be useful to conduct similar studies in developing countries. It can also provide useful insights into the challenges faced in developing countries, so similar countries can prevent common pitfalls and developed countries may take such issues into account for setting up policies and initiatives for collaboration and support.

References

Bennion, A. and W. Locke. 2010. The early career paths and employment conditions of the academic profession in 17 countries. *European Review 18*(S1):S7-S33. DOI: 10.1017/S1062798709990299.

Bista, K. and C. Foster. (Eds.). 2016. *Campus support services, programs, and policies for international students*. Hershey, USA: IGI Global.

Camino, E. 2018. La movilidad de estudiantes en América Central: ¿En busca del hegemonic knowledge? *América Latina Hoy* 77:137-158.

Cantwell, B., S. Luca and J. Lee. 2009. Exploring the orientations of international students in Mexico: differences by region of origin. *Higher Education 57*(3):335-354. DOI: 10.1007/s10734-008-9149-x.

Cortez, C. 2016. Intercambios en la UACH llevaron a estudiantes a 38 países. http://tiempo.com.mx/noticia/53075-intercambios_en_la_uach_llevar. Accessed 16 October 2018.

Espinoza, E. 1997. La Educación Superior en México frente al TLC. *Comercio Exterior 44*(9):205-210.

Ferrer, A. 2012. La contribución de la movilidad académica a la construcción de un espacio Iberoamericano de educación superior. *Revista Lusófona de Educação 21*:53-68.

Flores, D. 2015. La movilidad académica y estudiantil: un tema en la agenda de la investigación educativa en México. http://www.rimac.mx/la-movilidad-academica-y-estudiantil-un-tema-en-la-agenda-de-la-investigacion-educativa-en-mexico. Accessed 16 October 2018.

Gacel, J. 2000. La dimensión internacional de las universidades mexicanas. *Educación Superior y Sociedad 11*(1-2):121-142.

González, J. and C. Gómez. 2012. Sugerencias para una política de la internacionalización de la educación superior en México en la segunda década del siglo XXI. *Mundo Siglo XXI: Revista del CIECAS-IPN 7*(27):25-34.

Jamaludin, N., D. Sam and G. Sandal. 2017. Destination motivation, cultural orientation and adaptation: International students' destination-loyalty intention. *Journal of International Students 8*(1):38–65.

Kim, T. 2017. Academic mobility, transnational identity capital, and stratification under conditions of academic capitalism. *Higher Education 73*(6):981–997. DOI: 10.1007/s10734-017-0118-0.

Knight, J. 2005. Un modelo de internacionalización: Respuesta a nuevas realidades y retos. In H. de Wit, C. Jaramillo, y J. Knight (Eds.), *Educación superior en América Latina: La dimensión internacional* (pp. 1-38). Bogotá, Colombia: Banco Mundial.

Morley, L., N. Alexiadou, S. Garaz, J. González-Monteagudo and M. Taba. 2018. *Higher Education 76*(3):537-554. DOI: 10.1007/s10734-017-0224-z.

Pherali, T. 2012. Academic mobility, language, and cultural capital: The experience of transnational academics in British higher education. *Journal of Studies in International Education 16*(4):313-333.

Rodríguez-Bulnes, M., A. Vences-Esparza and I. Flores-Alanís. 2016. La internacionalización de la educación superior: Caso UANL. *Opción 32*(13):560-582.

Romo-González, J. and J. Tarango. 2016. *Métodos estadísticos con SPSS aplicados a la educación*. Buenos Aires: Alfagrama.

Sebastián, J. 2004. *Cooperación e Internacionalización de las Universidades*. Buenos Aires: Biblos.

Secretaría de Relaciones Exteriores. 2018. Mexican government scholarships for international students 2018. https://embamex.sre.gob.mx/finlandia/index.php/noticias/convocatorias-calls/79-becas-gobierno-mexico-2018. Accessed 16 October 2018.

Stronkhorst, R. 2005. Learning outcomes of international mobility at two Dutch institutions of higher eduaction. *Journal of Studies in International Education 9*(4):292-315.

United Nations Educational, Scientific and Cultural Organization 1998. *World Conference on Higher Education: Higher education in the twenty-first century. Vision and action*. Paris: France: UNESCO. http://unesdoc.unesco.org/images/0011/001163/116345e.pdf. Accessed 16 October 2018.

Universidad Autónoma de Chihuahua. 2018. Servicios internacionales. http://internacional.uach.mx. Accessed 16 October 2018.

University of Windsor. 2018. Scholarships for Mexican students. http://www.uwindsor.ca/intl/184/scholarships-mexican-students. Accessed 16 October 2018.

Varela, L. 2005. El referente de la internacionalización y sus inherencias para la educación superior pública. *Revista Educación 29*(2):11-33.

Voloschin, L. 2011. *Interculturalidad e internacionalización en la Universidad Nacional de Cuyo: La movilidad internacional de estudiantes universitarios* (Bachelor Thesis). Mendoza, Argentina: Universidad Nacional de Cuyo. http://bdigital.uncu.edu.ar/objetos_digitales/6081/tesis-fcpys-voloschin.pdf. Accessed 16 October 2018.

Wächter, B. 2003. An introduction: Internationalisation at home in context. *Journal of Studies in International Education 7*(1):5-11.

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