Intercultural and Global Competencies Development to Foster Professional Collaboration among Countries*

Doctoral Thesis Research Project*

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ABSTRACT

Currently, we are more connected than ever because of developments in information and communication technologies. Physical barriers no longer obstruct interacting, collaborating, and relating to people anywhere in the world. The development of intercultural competencies allows the individual to have proper knowledge and understanding of different cultures and interact and relate effectively in different multicultural settings.

The purpose of this document is to show the current status of the doctoral thesis about the development of intercultural and global competencies in university students through an innovative training model that promotes collaboration among students of different nationalities. To help understand the problem on which the research topic focuses, we present a status report on the review of the literature and the integrated, sequential-explanatory design of a mixed-methodology for collecting quantitative and qualitative data. With the results, we expect to propose an innovative, technologically-based training model that promotes intercultural and global competencies in higher education students. This research progress report explains the theoretical contributions to the construction of the framework and the methodology.

CCS CONCEPTS

•Social and professional topics • User characteristics • Cultural characteristics

KEYWORDS

Intercultural competence, Interculturality, Professional collaboration, Educational Innovation, Higher education

1 Context and motivation underlying this thesis

Reflecting on the current advances that allow the continuous mobility of people in our world, and the increasing impact of technology on everyday life, we find it impossible to ignore that we live in a multicultural society. The most important issues of these times are global scope in scope. It is here where the educational institution plays an active and fundamental role in an ideal scenario, where members from diverse cultural backgrounds interact voluntarily in various activities, generating empathy and awareness about the cruciality of sharing and working for the common good. The need for solid international cooperation through "alliances to reach goals" has been declared by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) [1]. This is represented in the framework of the 17 Sustainable Development Goals

(SDGs) for education, adopted by the United Nations (UN). Even though important collaborations have been carried out globally, much still needs to be done in the academic field to provide individuals a perspective of global citizenship. Thus, an innovative training model must be planned that aims to develop intercultural competencies in university students. The UNESCO chair discussing intercultural dialog emphasized "the critical importance of offering sufficient opportunities for quality formal and informal learning so that all can acquire the intercultural competencies necessary for successful living in the modern, complex, heterogeneous world" [2]. In Mexico, the Ministry of Education (SEP) states that intercultural education is for all populations. It fosters acknowledgment of the differences and respectful coexistence among individuals and communities through dialogue free of prejudice and exclusions. It also states that currently, agencies like the General Coordinating Office for Intercultural and Bilingual Education (CGEIB), the National Institute of Indigenous Languages (INALI), the National Commission for the Development of Indigenous People (CDI), and the Department of Indigenous Education (DGEI) are in charge of promoting the development of intercultural competencies through various actions [3].

Even though there is talk about promoting these competencies, there is no specific scheme or model that allows students to develop intercultural and global competencies that foster collaboration with people from different cultural backgrounds. In this environment, this current research inserts the opportunity to analyze and evaluate intercultural and global competencies in university students and graduates and the degree of their collaboration with professionals from diverse cultures. Given global issues, technological development, and remote communication, it would prove beneficial to explore to what extent and how intercultural and global competencies are transmitted to students in higher education to foster international collaboration.

The following sections will present the path for the development of this project: literature review, hypothesis, objectives, research method and some brief conclusions on the progress of this thesis.

2 State of the art
2.1 Intercultural and global competencies
It is undeniable that we live in an increasingly connected world. Physical frontiers have stopped being a barrier to interacting and working collaboratively to develop solutions to various global issues. Hence, it has become essential that students develop intercultural competencies [2]. This means having sufficient, relevant knowledge about specific cultures, maintaining attitudes receptive to fostering continuous contact with people of diverse cultures, and acquiring the skills needed to make the most from the exchange of knowledge and attitudes while interacting with them.

Internationalization has become an important strategy for the growth of institutions. The development of intercultural competencies in students has passed from being an added value side effect to becoming a driving, global educational objective in the modern world [4]. Awareness development and knowledge of different world views are a crucial part of intercultural competencies. So, too, is the behavioral adaptability to cope with the various world perspectives [5]. Intercultural awareness and communication require the understanding that there are differences and possible difficulties while interacting with people from various cultures; consequently, knowing these factors can lead to successful collaboration [6]. In this way, intercultural competencies can be a decisive factor in fostering and achieving positive collaboration among professionals of diverse nationalities.

2.2 Collaboration among professionals of diverse cultures
We must identify the array of characteristics that make up intercultural competencies and understand their importance to collaboration among professionals of diverse nationalities. The seventeen United Nations Sustainable Development Goals (SDGs) for education state that for a development project to be carried out satisfactorily, there must be inclusive partnerships at all levels that agree on the principles and values. These alliances must have shared vision and objectives that focus on people and the planet. Cultural diversity [7] is present in most aspects of modern life; thus, it is essential to develop intercultural competencies that comprehend this diversity and facilitate effective communication in multicultural situations. The future should not be envisioned as just one possible future. People should anticipate the different directions and possibilities of the future to expand their scope of actions in the present. Living together in peace requires that the members of a community can imagine shared cities or common futures [8]. Because nowadays we live in a multicultural society and the most important problems of our times have a global impact, knowing how to interact and collaborate with people from all parts of the world becomes crucial.

2.3 Innovative training models to develop competencies
Even if important international collaborations have been carried out, there is still work to be done in the academic field to create a global perspective of citizenship among individuals. Therefore, an innovative training model that has the goal of developing intercultural competencies in university students should be planned. In the educational field, a model [9] presents the desirable components and elements comprising the meaning and orientation of what is desired to be constructed. The growing development of information and communication technologies (ICTs) has led to essential changes in the educational models and the need for people to

adapt to changing conditions [10]. Hence, Ramírez-Montoya [9] states that society needs educational models where the methods are directed to self-learning, to the correct use and handling of information and new technologies, and to social awareness that leads to collective growth. The practice of group learning activities [11] is widely used in higher education. It can lead to knowledge acquisition, increased student motivation, the development of higher-order thinking, and metacognitive and collaborative social skills. This is why it is crucial to create a model that successfully develops intercultural competencies that allow students to collaborate actively and positively with professionals from diverse cultures worldwide.

3 Hypothesis
The following research hypothesis has been put forward: The development of global, intercultural competencies in university students promotes positive collaboration among professionals of different nationalities, leading to alternative solutions to worldwide challenges that work for the common good.

4 Objectives
The general objective of this research is to assess the extent to which intercultural and global competencies are transmitted to young professional students and understand how. The end goal is to propose an innovative training model to develop intercultural competencies relevant to professional collaboration. We will achieve this by analyzing student and university graduate profiles and their international exposure. The specific objectives of this research project are:

- To analyze and evaluate the components of the development of intercultural and global competencies in higher education and recently graduated students, through systematic reviews of literature and mapping that sustain the conceptual framework for the research.
- To measure to what extent the development of intercultural and global competencies in young university students fosters multicultural, professional collaboration.
- To offer an innovative, technology-based training model that promotes intercultural and global competencies in professional students.

5 Research approach and method
The use of mixed methods for research in the field of social sciences and education is increasingly frequent since they focus on key aspects such as the human factor, the educational process, and processes that combine quantitative and qualitative strategies [12]. This methodology [13, 14] provides a better understanding of our research problem; therefore, the mixed methodology will be used in this research, allowing us to observe among university students and recently graduated professionals the relationship between intercultural competencies and the level of collaboration with professionals from other cultures.

The design used in this research will be sequential explanatory, QUAN -> QUAL, in two phases [15]. In the first phase, a quantitative analysis will be carried out, applying Likert scale questionnaires, and also interviews (QUAL) and observation lists (QUAL). With these data, an innovative training model for the development of intercultural competencies will be designed. In the second phase, the model will be applied to university students and deepened through qualitative instruments, using in-depth interviews, observation lists, assessment rubrics, checklists, and Likert-scale questionnaires (QUAN). In the end, a report will be written to present the results of the research process.

5.1 Population and sample
The population is comprised of two different groups of higher education students and graduates: The first is a group belonging to institutions that promote the development of intercultural competencies in Mexico. A second belongs to institutions in Mexico that do not integrate intercultural competencies into their curricula. For the selection of the sample, intentional (qualitative) but also probabilistic (quantitative) sampling will be used to select the participants [13].

5.2 Variables under study
Three variables have been established to carry out the research: a) intercultural competencies, b) collaboration among professionals from different cultures, c) innovative training models to develop competencies.

A. Intercultural Competencies. These refer to having sufficient, relevant knowledge about specific cultures, maintaining receptive attitudes that encourage establishing and maintaining contact with people from different cultures, and the skills required to benefit from the exchange of knowledge and cultural attitudes when interacting with them [2]. An essential part of intercultural competencies is developing awareness and knowledge of different world views and having the behavioral flexibility to deal with each of them [5].

B. Collaboration between professionals from different cultures. Students need to know that it is beneficial to take the initiative to communicate and work with international

students. Although they probably consider that intercultural communication is relevant to their future lives, they should not feel that developing these skills can wait until after graduation. [7]. Their intercultural understanding and communication imply they comprehend the differences and potential difficulties when interacting with people from different cultures. Consequently, the knowledge of these factors can lead to successful collaboration [6]. It may be necessary for multicultural group collaborations to be mandatory for students. However, it may be a better requirement that students first commit themselves to this so that the collaboration can take place in the best way possible [7].

C. Innovative training models for the development of competencies. In the educational field, a model [9] presents the desirable components and elements comprising the meaning and orientation of what is desired to be constructed. [9]. An educational model is composed of four boundaries: "its ultimate goals (philosophy), its internal order (theory), its practical orientation (policy) and its operation (educational processes and practice)" [9]. The current reality, with the development and impact of new digital technologies, and information and communication media, demands changes in the teaching-learning processes that support social awareness and positive collaboration. "By incorporating something new, the existing reality is innovated, altered, modified, and changed. Thus, the definition of innovation is the incorporation of something new within an existing reality, by which it is modified." [9].

5.3 Study instruments
To conduct the study, we will employ the following instruments to investigate each variable:

I. *Likert-scale questionnaires*: to know the students' perception of their intercultural and global competencies and the stimuli that lead them to collaborate with people from diverse nationalities. Sociodemographic aspects can also be known (variables: intercultural competencies and collaboration).

II. *Semi-structured interviews*: to students and recent university graduates to find out how they perceive the importance and usefulness of intercultural and global competencies in their training and, specifically, how they consider that these influence their motivation to work collaboratively with students of various nationalities (variables: intercultural competencies, collaboration; for the second phase, also, an innovative training model).

III. *Observation list*: will be used with the group of students to whom the Likert scale questionnaires are applied, in both the first and second phases, to observe the level of development of intercultural competencies and collaboration among students of different nationalities (variables: intercultural

competencies, collaboration; for the second phase, also, an innovative training model).

IV. *Evaluation rubrics*: to identify through the activities completed by the students if they reach levels of mastery that ensure their acquiring the intercultural and global competencies (variables: intercultural competencies and collaboration).

V. *Checklist:* to identify which international and global competencies are intended to be acquired by students at the end of their professional career (variables: intercultural competencies and the innovative training model).

5.4 Sources of information
I. *Professional students*: will express how they perceive that intercultural and global competencies influence their training and help them collaborate with people of different nationalities.

II. *Recently graduated university students*: will express how they perceive their training of intercultural and global competencies and how these help them collaborate with people of different nationalities.

III. *Experts*: teachers, researchers, or leaders in building innovative training models and intercultural competencies. The designed instruments will be validated with them. Professors will participate as guides for the multicultural student teams to implement collaborative activities.

IV. *Significant documents*: plans and rubrics to identify how the elements are designed and used to assess the achievement of intercultural and global competencies in the students and identify if they have attained the required mastery levels.

V. *Digital material*: databases, books, magazines, and articles to know the state of the variables and facilitate the theoretical foundation and the analysis of results.

5.5 Capturing and analyzing information
The capture and analysis process will be carried out in the following way:

First phase:
I. Validity tests of the questionnaires.
II. Pilot test for the questionnaires.
III. Modification of results based on pilot tests.
IV. Application of Likert-scale questionnaires.
V. Analysis of the questionnaire results.
VI. Analysis of significant documents.

Second phase:
I. Design of the model.
II. Expert analysis test for the interviews.
III. Application of interviews with students.
IV. Application of interviews with students who have graduated.
V. Analysis of interview records.

VI. Transcription of the information obtained from the analysis of the interview records.

VII. Writing the report.

VIII. Conducting participant observations and recording observations.

IX. Analysis of observation records.

X. Transcription of the information obtained from the analysis of the observation records.

XI. Report writing.

For the quantitative information, the SPSS software will be used. The statistical tests will be carried out based on the normality of the data behavior. The qualitative information will be processed using the software Atlas Ti to determine the categories that emerge, as well as the keywords and the relationships that exist between them. Finally, the results of the quantitative and qualitative instruments will be considered according to the mixed methodology [16] to answer the research questions. Immersed in the design is that the qualitative information complements the quantitative or vice versa [17].

Similarly, a triangulation must be carried out by comparing the results found in the different sources of information, namely, professional students, graduates, and significant documents. Based on the ethical principles that should be followed in a research study, the participants will be asked to sign a letter of acceptance that indicates that they may decide at any time to withdraw their participation in the study. The research will follow the principles of confidentiality.

This research will be conducted under the British Educational Research Association (BERA) Council's Ethical Guidelines for Educational Research. "This means that ethical decision-making becomes an active, deliberative, ongoing, and iterative process of assessing and re-evaluating the situation and problems as they arise throughout this research." [18].

5.6 Means and materials available

This work is developed in the Ph.D. program "Training in the Knowledge Society" [19, 20, 21], accessible from http://knowledgesociety.usal.es. This portal is the main tool of communication and visibility of the research progress [22, 23]. It will include all the publications, stays, and conference attendance throughout the work. This thesis is developed in the GRIAL Group of the University of Salamanca [24, 25].

Also, in the course of the investigation, the following will be used:

I. SPSS: Software to obtain and analyze quantitative data.

II. Atlas Ti: Software to concentrate and analyze qualitative data.

III. Qualtrics: to elaborate and apply the questionnaires.

IV. Minitab: software for statistical analysis.

V. Tableau: a program for making graphs.

VI. Mendeley: for information management.

VII. Zoom: a platform for participant observations and interviews in a virtual context.

VIII. Academic plans: for insight into the contents and the competencies that we want to develop in the students.

6 Current progress of the thesis

The current progress consists of developing a literature review to construct the theoretical framework, drawing up the timeline plan of the study, and determining its population from which to draw the sample.

7 Current and planned contributions

The research project will contribute to educational innovation, generating valuable knowledge by designing an innovative training model to develop intercultural and global competencies in higher education students.

8 Conclusion

Although this research project is starting to develop, the importance of the topic is clear: our multicultural society needs to understand and appreciate its diversity in order to collaborate and generate better solutions for our world and for the everyone's well-being of all.

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REFERENCES

[1] United Nations. 2015. *Goal 17: Revitalize the global partnership for sustainable development. [Objetivo 17: Revitalizar la Alianza Mundial para el Desarrollo Sostenible].* www.un.org/sustainabledevelopment/es/globalpartnerships/

[2] W. Leeds-Hurwitz. 2017. Competencias interculturales: marco conceptual y operativo. *Cátedra UNESCO-Diálogo intercultural.* Recuperado de: https://unesdoc.unesco.org/ark:/48223/pf0000251592

[3] Secretaría de Educación Pública. 30 de octubre de 2017. *¿Sabes en qué consiste la educación intercultural?* https://www.gob.mx/sep/articulos/sabes-en-que-consiste-la-educacion-intercultural

[4] L. Huang. 2016. Co-curricular activity-based intercultural competence development: students' outcome of internationalisation at universities. *Innovations in Education and Teaching International, 54(3), 184–193.* doi:10.1080/14703297.2016.1184098

[5] M. Schwarzenthal, M. K. Schachner, L. Juang, and F. J. R. Vijver. 2019. Reaping the Benefits of Cultural Diversity: Classroom Cultural Diversity Climate and Students' Intercultural Competence. European Journal of Social Psychology. doi:10.1002/ejsp.2617

[6] S. Swartz, B. Barbosa, and I. Crawford. 2020. Building Intercultural Competence Through Virtual Team Collaboration Across Global Classrooms. *Business and Professional Communication Quarterly*, *83*(1), 57–79. https://doi.org/10.1177/2329490619878834

[7] N. Campbell. 2016. Ethnocentrism and intercultural willingness to communicate. *Journal of Intercultural Communication*, 40.

[8] I. Lianaki-Dedouli and J. Plouin. 2017. Bridging anticipation skills and intercultural competencies as a means to reinforce the capacity of global citizens for learning to learn together. *Futures*, 94, 45–58.

[9] M. S. Ramírez-Montoya. 2015. *Modelos y estrategias de enseñanza para ambientes innovadores*. Monterrey, México: Editorial Digital del Tecnológico de Monterrey.

[10] A. M. Hamdan, A. M. Sarea, and F. Almahry. 2018. A review paper on entrepreneurship education and entrepreneurs' skills. Journal of Entrepreneurship Education. 21.

[11] M. De Hei, C. Tabacaru, E. Sjoer, R. Rippe, and J. Walenkamp. 2019. Developing Intercultural Competence Through Collaborative Learning in International Higher Education. Journal of Studies in International Education. doi:10.1177/1028315319826226

[12] M. S. Ramírez-Montoya, and J. Lugo-Ocando. 2020. Systematic review of mixed methods in the framework of educational innovation. [Revisión sistemática de métodos mixtos en el marco de la innovación educativa]. *Comunicar, 65*, 9-20. https://doi.org/10.3916/C65-2020-01

[13] J. W. Creswell. 2015. *A concise introduction to mixed methods research.* Thousand Oaks, CA, USA: SAGE.

[14] R. B. Johnson, and A. J. Onwuegbuzie. 2004. Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33(7), pp. 14-26.

[15] J. W. Creswell, A. Klassen, V. Plano Clark, and K. Clegg Smith. 2013. Best Practices for Mixed Methods Research in the Health Sciences John W. Creswell, Ann Carroll Klassen, Vicki L. Plano Clark, Katherine Clegg Smith for the Office of Behavioral and Social Sciences Research; Qualitative Methods Overview Jo Moriarty. *Qualitative Social Work*, *12*(4), 541–545. https://doi.org/10.1177/1473325013493540

[16] J. W. Creswell, V. L. Plano Clark, M. L. Guttmann, and E. E. Hanson. 2003. *Advanced mixed methods research design. En A. Tashakkori y C. Teddlie (Eds.). Handbook of mixed methods in social and behavioral research* (pp. 209-240). Thousand Oaks, CA: Sage.

[17] J. W. Creswell, and V. L. Plano. 2011. *Designing and conducting mixed methods research*. United States of America: SAGE   Publications, Inc.

[18] Asociación Británica de Investigación Educativa [BERA]. 2019. *Guía Ética para la Investigación Educativa* (4.ª ed.) (L. Rivera Otero and R. Casado-Muñoz, Trads.), Londres. https://www.bera.ac.uk/publication/guia-etica-para-la-investigacion-educativa

[19] F. J. García-Peñalvo. 2014. Formación en la sociedad del conocimiento, un programa de doctorado con una perspectiva interdisciplinaria. *Education in the Knowledge Society*, 15(1), 4-9.

[20] F. J. García-Peñalvo. 2013. Education in knowledge society: A new PhD programme approach. *In Proceedings of the First International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'13) (Salamanca, Spain, November 14-15, 2013),* F.J. García-Peñalvo Ed. ACM, New York, NY, USA, 575-577. DOI:10.1145/2536536.2536624

[21] F. J. García-Peñalvo, M. J. Rodríguez-Conde, S. Verdugo-Castro, and A. García-Holgado. 2019. Portal del Programa de Doctorado Formación en la Sociedad del Conocimiento. Reconocida con el I Premio de Buena Práctica en Calidad en la modalidad de Gestión. In A. Durán Ayago, N. Franco Pardo, & C. Frade Martínez (Eds.), *Buenas Prácticas en Calidad de la Universidad de Salamanca: Recopilación de las I Jornadas. REPOSITORIO DE BUENAS PRÁCTICAS*, p. 39-40.

[22] A. García-Holgado, F. J. García-Peñalvo, and M. J. Rodríguez-Conde. 2015. Definition of a technological ecosystem for scientific knowledge management in a Ph.D. Programme. In G. R. Alves & M. C. Felgueiras (Eds.), *Proceedings of the Third International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'15) (Porto, Portugal, October 7-9, 2015)* (pp. 695-700). New York, NY, USA: ACM.

[23] F. J. García-Peñalvo, A. García-Holgado, and M. S. Ramírez-Montoya. 2019. Track 16: TEEM 2019 Doctoral Consortium. In M. Á. Conde-González, F. J. Rodríguez-Sedano, C. Fernández-Llamas, & F. J. García-Peñalvo (Eds.), *TEEM'19 Proceedings of the Seventh International Conference on Technological Ecosystems for Enhancing Multiculturality (Leon, Spain, October 16th-18th, 2019)* (pp. 920-924). New York, NY, USA: ACM.

[24] F. J. García-Peñalvo, M. J. Rodríguez-Conde, R. Therón, A. García-Holgado, F. Martínez-Abad, F., and A. Benito-Santos. 2019. Grupo GRIAL. *IE Comunicaciones. Revista Iberoamericana de Informática Educativa* (30), 33-48.

[25] Grupo GRIAL. 2019. *Producción Científica del Grupo GRIAL de 2011 a 2019* (GRIAL-TR-2019-010). Salamanca, España: Grupo GRIAL, Universidad de Salamanca. https://bit.ly/30l9mLh