



Attitudes of University Students Towards Research

Received: November 11, 2024
Reviewed: March 28, 2025
Published: April 1, 2026

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Type: Research article

Abstract

The objective of this research is to determine students' attitudes towards research at three Latin American universities and to establish levels of favourability towards these attitudes. To achieve this, a quantitative study was conducted using a descriptive research approach that prioritised comparative analysis, with a non-experimental, cross-sectional design. The research sample comprised 146 students enrolled in research methodology courses. The most relevant results show that although students hold a favourable opinion of the influence they receive from professors, they are unaware of some institutional mechanisms that could support their research training. Additionally, based on students' voluntary decisions and actions regarding various activities, and the priority they assign to research and related topics (science and technology) in their daily lives, there is a need to strengthen certain participatory and informational avenues at the institutional level.

Keywords

attitudes; methodology; research; training; university students

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Atitudes dos estudantes universitários em relação à pesquisa

Resumo

O objetivo desta pesquisa é determinar as atitudes de estudantes de três universidades latino-americanas em relação à pesquisa e estabelecer os níveis de favorabilidade dessas atitudes. Para isso, realizou-se um estudo quantitativo com abordagem descritiva, priorizando a análise comparativa, em um delineamento não experimental e transversal. A amostra foi composta por 146 estudantes matriculados em disciplinas relacionadas à metodologia da pesquisa. Os resultados mais relevantes indicam que, embora os estudantes apresentem uma opinião favorável sobre a influência recebida dos docentes, desconhecem alguns mecanismos institucionais que poderiam apoiar sua formação em pesquisa. Além disso, com base nas decisões e ações voluntárias dos estudantes em relação a diversas atividades e na prioridade que atribuem à pesquisa e a temas correlatos (ciência e tecnologia) em sua vida cotidiana, observa-se a necessidade de fortalecer certos canais institucionais de participação e informação.

Palavras-chave

atitudes; metodologia; pesquisa; formação; estudantes universitários

Actitudes de estudiantes universitarios ante la investigación

Resumen

El objetivo de esta investigación es determinar las actitudes de estudiantes de tres universidades latinoamericanas hacia la investigación y establecer los niveles de favorabilidad de dichas actitudes. Para ello, se realizó un estudio cuantitativo con un enfoque descriptivo que priorizó el análisis comparativo, bajo un diseño no experimental y de corte transversal. La muestra estuvo compuesta por 146 estudiantes matriculados en asignaturas relacionadas con la metodología de la investigación. Los resultados más relevantes muestran que, aunque los estudiantes mantienen una opinión favorable sobre la influencia que reciben del profesorado, desconocen algunos mecanismos institucionales que podrían apoyar su formación investigativa. Además, a partir de las decisiones y acciones voluntarias de los estudiantes en torno a diversas actividades, así como de la prioridad que asignan a la investigación y a temas afines (ciencia y tecnología) en su vida cotidiana, se evidencia la necesidad de fortalecer determinados canales de participación e información a nivel institucional.

Palabras clave

actitudes; metodología; investigación; formación; estudiantes universitarios

To cite this article

Reyes-Rodríguez, A. D., Gallardo-Olivera, M. D., Romero-Cuestas, C. A. & Bannasar-García, M. (2026). Attitudes of University Students Towards Research, *Revista Colombiana de Educación*, (99), e22354, <https://doi.org/10.17227/rce.num99-22354>

Introduction

One of the functions of the university is to generate knowledge (Osorio et al., 2022; Pedraza-Díaz, 2022; Vizcaíno & Muñoz, 2021). Thus, research becomes a central and predominant element of the formative action—not only because of research produced within the university's institutional framework, but also because of its role in shaping educational outcomes. That is, the formative process is expected to produce professionals with investigative capacities and skills for professional development and performance (Ahmed et al., 2024; Reyes & Moraga, 2020).

When we speak of education as both a context and a field of professional performance, it is necessary to point out that research plays a fundamental role (Mamede, 2022). From gathering diagnostic data in educational contexts, compiling technical reports of previous findings, designing and implementing pedagogical interventions, to final analysis and reporting, research is an essential tool for educators. In fact, initial teacher training today is inconceivable without the development of basic research skills (English et al., 2022; Palencia et al., 2022; Reyes, 2022; Reyes et al., 2021). To achieve this, universities embed various mechanisms into the curriculum and offer alternative initiatives that provide dynamic support for on-site training.

Within the curriculum, key academic subjects include research methodology, educational research, statistics, thesis seminars, and formative milestones—skills or competencies, depending on the institutional model (Reyes, 2022). Complementary actions and support measures include initiatives such as research seedbeds, student researcher groups, among others (Chumpitaz & Lomba-Portela, 2024; Rasa et al., 2024; Reynosa et al., 2019)—all part of the transversal formative efforts integrated throughout the curriculum.

Now, these and other instances are designed by universities to develop students' basic research skills. However, essential work also involves the motivation generated by the institution, faculty, academic programs, and professors towards research. That is, does the university student understand the need for research training and the impact of research on their future professional performance? How does the student perceive research, and how motivated are they towards it? These and other questions must be considered by those responsible for this component of training at the university level, as students' understanding—or lack thereof—ultimately shapes their attitude towards research, research training, and key milestones such as thesis development and its oral defence.

Indeed, as confirmed by Bhattacharjee et al. (2024), the professor's attitude has repercussions on students' attitudes towards research. This is relevant, as

attitude is considered a predisposition—either favourable or unfavourable—towards research, reinforced by both internal decisions and external motivations (Reyes et al., 2023).

Scientific literature provides insights into university students' attitudes towards research. For example, Reyes et al. (2023), in a study of students' attitudes towards research in public universities, found that students typically engage with research-related subjects because they are compulsory. Interest in research tends to arise only when students are required to complete a thesis for graduation, rather than from recognising research as essential for their professional development.

Hernández and Vásquez (2022) conducted a literature review on university students' predispositions towards research. Their findings show that Hispanic students generally display a positive predisposition, and that such predispositions should be evaluated within context rather than through raw comparative indicators.

Cruz et al. (2021) considered the attitudes of students at the Peruvian Union University towards research. They conclude that students do not place enough importance on research and training in it, adding that there is a need for the university to provide motivation to foster a favourable attitude towards research, given the significance of this formative area for future professionals.

In the case of Estrada et al. (2021), the study was conducted at the Madre de Dios Pedagogical Higher Education Institute (Peru), where they examined the attitudes of pedagogy students towards research. Their findings reveal that the students surveyed have an unfavourable attitude towards research, which affects both their subject grades and the quality of their thesis.

Rojas-Solís et al. (2021), in the same context, found that students' attitudes towards research ranged from regular to unfavourable. Additionally, students reported that lecturers influence their perception of research through their classroom practices, use of research tools, and engagements with academic articles, among other factors.

Ortega et al. (2018) conducted research on the attitudes of university students towards research at the National University of Pilar (Paraguay), across seven faculties. The results show weaknesses in students' abilities to present projects, limited participation in scientific dissemination events, low use of scientific articles by teachers in their subjects, and the need to emphasise teaching the scientific method. Furthermore, the authors noted the need for greater promotion of research departments, especially in fostering student involvement in research activities. It is noteworthy that just over 90% of surveyed students believed that

research training would benefit their professional lives, and at least 80% expressed a desire to participate in research seedbeds.

Arellano-Sacramento et al. (2017) studied students' attitudes towards research at Alas Peruanas University. Their study categorised attitudes as good, regular, and bad. Notably, only 18.6% of the sample demonstrated a good attitude towards research.

In a related study, Sanabria et al. (2023), focusing on students from the Faculty of Medicine at the University of Granada, found that: "Interest in research among medical students seems to decrease as the academic years progress. More research promotion could be implemented during the years of university studies" (p. 1).

Finally, Bin-Ghouth et al. (2023) identified a group with interest in research; however, a significant percentage of participants (72%) reported low scores in 'Knowledge', despite the majority expressing a positive attitude towards research.

Considering such findings, concerns arise regarding the attitudes of students undergoing training in the field of education at three university institutions: the Faculty of Education of the Adventist University of Chile (UNACH, Chile), the Faculty of Sports Sciences and Physical Education of the University of Cundinamarca (UDEEC, Colombia), and the Higher Institute of Teacher Training Salomé Ureña (ISFODOSU, Dominican Republic). Therefore, the objectives of this research are: first, to determine the attitudes of students from these institutions towards research; and second, to establish the level of favourability of students' attitudes towards research.

Methodology

Research Design

The study employs a quantitative approach, with a descriptive research design, privileges comparative analysis, and uses a non-experimental, cross-sectional design. The population consists of undergraduate university students enrolled in research methodology subjects at three universities: UNACH, ISFODOSU, and UDEEC. The sample consisted of all students enrolled in the corresponding subject during the 2021-2022 academic period, under the researchers' responsibility, totalling 146 students.

Inclusion criteria were: being a student at one of the three institutions and being enrolled in a subject associated with research methodology.¹ Exclusion criteria were: having any condition that prevents them from responding and not completing the informed consent.

An ad hoc questionnaire instrument was used for the study, with validation processes carried out for this purpose. The validation process involved two techniques: first, content validation by external experts for the institutions in question; and second, content and form review in a pilot test. External expert validation was carried out using Lawshe's content validity index (Galicia et al., 2017; Lawshe, 1975; Tristán-López, 2008), considering the content validity ratio, with a result of +1 indicating validity of the instrument's content. The questionnaire comprised 27 items (closed multiple-choice and open-ended), grouped into three dimensions: *professorial influence*, *institutional influence*, and *predisposition*.

Table 1.
Distribution of items according to study dimensions

DIMENSION	ITEMS
Professorial Influence	P1, P2, P3
Institutional Influence	P4, P12, P23, P14, P15, P16, P17
Predisposition	PT2, P5, P6, P7, P8, P9, P10, P11

Source: Own elaboration (2024).

The instrument was delivered via *Google Forms* platform through institutional emails and the virtual platforms of each institution. This research has the approval of the Scientific Ethical Committee of the Adventist University of Chile, assigned under code CEC/2024-09. The 'Guidelines for Ethical Evaluation of Research in Social Sciences and Humanities' promulgated by the National Agency for Research and Development (ANID, 2021), and Law 19.628 on the Protection of Privacy were considered. Students digitally signed an informed consent form, ensuring the anonymity of the informants and the exclusive use of the information for research purposes. Graphics were created using RStudio 2024.12.1 Build 563© 2009-2025 Posit Software, PBC.

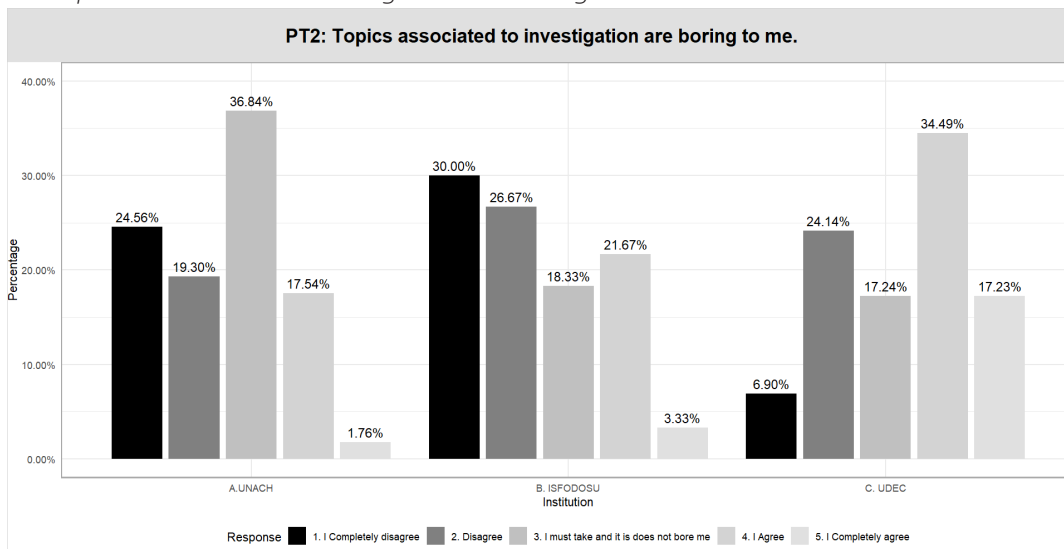
¹ It is stated "subject associated with research methodology", since, in each of the three institutions, the subjects have different names, but they aim at the same formative field.

Results

The most relevant results of the study are presented below, considering the context of the three contributing institutions. Firstly, it is noted that there were 146 participants, distributed across the three institutions as follows: n=57 (UNACH); n=60 (ISFODOSU); n=29 (UDEC).

Figure 1.

PT2: Topics associated to investigation are boring to me.

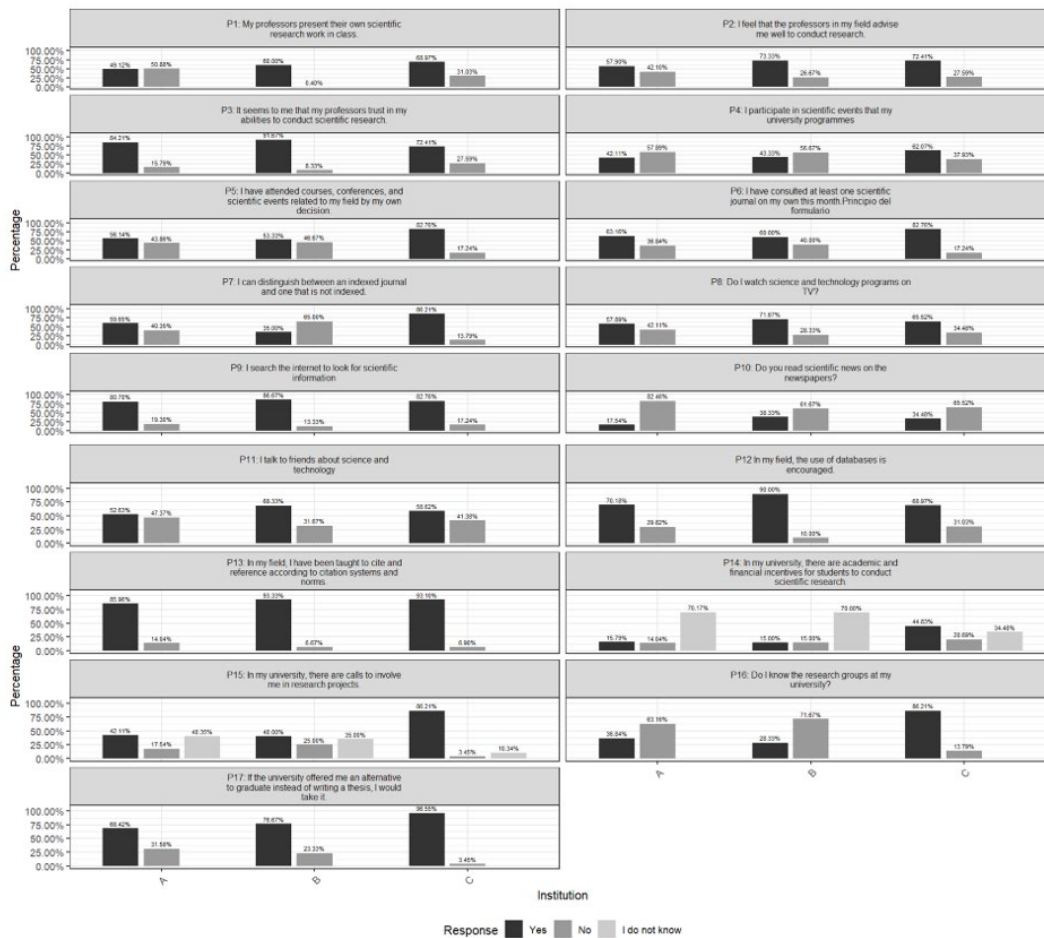


Source: Own elaboration (2024).

A first question asked whether research-related topics bored students. The data were grouped into two ranges: 1) From ‘Completely disagree’ to ‘I must take it and it doesn’t bore me’; and 2) From ‘Agree’ to ‘Completely agree’. It is noteworthy that 71.92% of students (across all three institutions) indicated that research-related topics do not bore them, while the rest expressed the opposite opinion. When examining responses by institution, it is also evident that in each case, most students reported not feeling bored—this distinction being slightly more pronounced at UNACH and ISFODOSU.

Figure 2.

Items. Legend: A: UNACH; B: ISFODOSU; C: UDEC.



Source: own elaboration (2024).

The items in Figure 2 provide insight into a series of statements (as classified in Table 1) that help identify levels of favourability towards students' attitudes to research across the study's three dimensions. The first dimension, *professorial influence*, includes three statements: whether professors share their own research work in class, whether students feel well advised by their professors, and whether they believe professors trust in their research abilities. For all three statements, students' opinions were generally favourable. When broken down by institution, only one item showed close parity—namely, the sharing of professors' own research work at UNACH.

The second dimension, *institutional influence*, explores the institution's role in fostering research training, involvement, and motivation among students. Here, responses vary. For example, most students (both overall and by institution)

reported that their degree programs encourage the use of databases and that they have been taught citation and referencing systems. However, students also stated that they are unaware of research-related calls or academic and financial incentives for participating in research projects. On a broader level, most students reported being unaware of research groups within their institutions—though in UDEC, it seems to be the opposite.

Regarding the final item—whether students would opt out of writing a thesis if the university offered an alternative—the majority (both overall and by institution) stated they would choose the alternative. This preference was particularly strong among UDEC students.

The third dimension, *predisposition*, concerns students' own motivations and voluntary engagement in research. All items within this dimension showed favourable responses across the institutions, with one exception: at ISFODOSU, most students indicated that they could not distinguish whether or not a journal is indexed.

The favourability towards students' attitudes towards research was determined using a proposed favourability model. This classifies responses into four percentiles: 'Slightly favourable' (Q1), 'Moderately favourable' (Q2), 'Favourable' (Q3), and 'Very favourable' (Q4), with the established range respectively.

Favourability was calculated by determining the percentage of positive responses for each item per institution. These item-level percentages were then summed and averaged by dimension (according to the classification in Table 1) and compared with the percentile ranges to determine overall favourability.

Table 2.

Influence about the attitude towards investigation

Institution	Professorial Influence	Institutional Influence	Predisposition
A	Q ₃ Favorable	Q ₂ Moderately Favorable	Q ₃ Favorable
B	Q ₃ Favorable	Q ₂ Moderately Favorable	Q ₃ Favorable
C	Q ₃ Favorable	Q ₃ Favorable	Q ₃ Favorable

Source: Own elaboration (2024).

In this way, it is observed that, according to the model, and in relation to the category *Professorial Influence*, in the three institutions, this is favourable; in relation to the category *Institutional Influence*, both in UNACH and ISFODOSU, this is moderately favourable; and in relation to the category *Predisposition*, this is favourable in all three institutions.

Discussion

The results of this research show a pattern that allows for a dialogue with existing scientific evidence regarding university students' attitudes towards research and the favourability, or lack thereof, in their predisposition towards it.

Firstly, this study found that many surveyed students reported not feeling bored by research-related topics. This demonstrates a favourable predisposition and suggests conditions conducive to educability within this group of students. The results differ from those of Reyes et al. (2023), where most respondents considered research to be boring, uninteresting, and unnecessary for their profession, viewing it solely as a requirement for completing their thesis. In Wang et al. (2024), boredom is identified as a personal determinant in teaching research at the university level (within a framework of epistemic, cultural, didactic determinants). However, according to Rojas (2021), this feeling towards research training could have three explanations: poor administrative-curricular decisions that restrict research training to academic subjects alone, biases towards research, and the teaching methodology used by the professor. This latter point has also been noted by Reyes (2022) and Estrada et al. (2021).

Aside from these comparisons, Reyes (2022) argues that student training in research cannot be limited solely to taking courses related to 'Research Methodology' (or their equivalents) within the curriculum. It involves a broader concept that includes other actions, instances, and methodologies that engage students' predisposition towards research training. Furthermore, Robles (2019) maintains that while subjects associated with research methodology can sometimes generate boredom, teaching and training in research do not have to be discouraging.

This issue is relevant because education is also understood as a two-way process. It should not be viewed from the perspective that positions the teacher as the one who knows and the student as someone who does not, regardless of the student's willingness to learn. In other words, learning and motivation should depend solely on teaching practices; students must also engage their will, effort, and intellect. Both teacher and student must converge within a process that establishes a shared horizon where knowledge is built through dialogue, consensus, and sometimes dissent. The desire to interact for learning on both sides allows formative encounters to be constructed collaboratively, which is fundamental to research training. Encouraging students' predisposition does not require teachers to be magicians, but it does place them in a relevant position to meet students' expectations. This applies not only to Research Methodology subjects but also to other courses in the curriculum, which, even if focused on different areas of knowledge, should still integrate research training.

Another important aspect is that teachers should share their research findings with students because knowledge is generated in context, refreshed, and reintegrated into the curriculum, thereby enriching classroom discussions. When teachers share their research, students perceive them as leading by example — demonstrating that teaching can be a space for engaging with real research practices.

Ommering et al. (2020) describe it as good practice for university teachers to share their own research with students. The key message is that students see the teacher as someone who not only consumes knowledge but also creates it, as expressed by Muñoz and Garay (2015): “This transforms the role of the teacher from being a mere consumer of research products to becoming an active entity in those processes and results” (p. 391). This work shows that just over half of the teachers (across the three institutions) share their findings with their students. This aligns with Romaní-Romaní and Gutiérrez (2022), who emphasise that such practices help articulate theory and practice through a research exercise that cuts across disciplines. This approach is also encouraged in Research-Based Learning methodologies, which have gained traction over the past decade (Educational Innovation Service of the Polytechnic University of Madrid, 2020). However, other studies show contrasting results; for example, Rojas-Solís et al. (2021) found that few teachers share their work, limiting opportunities to connect teaching with research and to motivate students by example. Similarly, Ortega et al. (2018) identify a gap between professors’ discourse about research and of the expectations placed on students.

The dimension of *Professorial Influence* was found to be favourable, as most professors share their work with students, students feel trusted in their research abilities, and they report being well guided by their professors. Although this study’s instrument does not specifically assess Research Methodology classes (considering that research training extends beyond them), Estrada et al. (2021) highlight the importance of teaching didactics as a mechanism to promote students’ attitudes towards research. Author 3 also supports this view, emphasising the expansion of training opportunities and the establishment of research as a transversal, ongoing institutional process.

Regarding the influence of institutions on students’ attitudes towards research, most students state that their programs encourage the use of databases and that they have been taught how to cite and reference correctly. However, a significant proportion reported being unaware of research groups, seedbeds, research projects calls, or academic and financial incentives for student participation, even though this information is available on institutional websites (ISFODOSU, 2024a, 2024b; UDEC, 2024a, 2024b, 2024c; UNACH, 2021, 2019). Of course, the fact that information is publicly available does not mean it is being accessed or understood

by students. Therefore, ongoing promotion and dissemination are essential. In this sense, these results align with those of Almeida et al. (2024), who found that a key barrier to positive institutional influence on students' attitudes towards research is related to informational issues—specifically, the need for continuous communication about institutional research policies and the opportunities available for student involvement.

It is noteworthy that, in the three institutions considered in the study, most students (both overall and by institution) stated that if there were an alternative to completing a thesis as a graduation requirement, they would take it. This finding is significant because, although the *Predisposition* dimension was favourable across all three institutions, this item contrasts with the other responses that suggest a favourable predisposition towards research. However, while this result is striking, it is not necessarily unusual, as similar findings have been reported elsewhere.

For example, Aiquipa et al. (2018) examined the factors influencing Psychology students' decisions to undertake a thesis. They found that, although multiple factors were involved, many students opted for alternatives to the thesis, even when such options were already available at their institution. Similarly, Susuki and Pamplón (2023) reported that students often choose non-thesis options due to various barriers, including linguistic challenges, underdeveloped research skills, time constraints, and a lack of professorial support. In contrast, a study by Carivaldo et al. (2023), which explored various graduation modalities (including the thesis), showed that although students chose alternative options, the thesis remained the most commonly selected.

Regarding students' predisposition, it appears to be favourable, as there is no evident boredom associated with research-related topics. Most students can distinguish between indexed and non-indexed journals, use academic databases to search for information, attend scientific courses and conferences voluntarily, search for scientific content online, watch science and technology programs, and discuss related topics with friends. These results contrast with those of Ortega et al. (2018), where students showed low participation in scientific events, and Rojas-Solís et al. (2021), whose participants also reported limited involvement in such activities. However, in both studies, as in the present one, students who read scientific articles demonstrated a positive attitude towards research and science. Chara-Saavedra and Olortegui-Luna (2018) also found that reading scientific material, attending training courses and conferences, and dedicating time to research were all linked to a favourable attitude towards research. These actions reflect students' personal commitment to staying informed and engaged with scientific developments in their field, which supports their long-term professional growth, not merely their short-term graduation goals.

When considering the overall favourability levels of students' attitudes towards research, three elements stand out. First, *professorial influence*, which was favourable in all three institutions; second, *institutional influence*, which was moderately favourable at UNACH and ISFODOSU; and third, *predisposition*, which was favourable across all institutions. While *professorial influence* and *predisposition* were favourable, there is still room for improvement to elevate them to a very favourable level. For *institutional influence*, UDEC showed a favourable rating, while UNACH and ISFODOSU remained at a moderately favourable level. As indicated in Table 2, this suggests that internal mechanisms and institutional policies that involve students and promote collaborative, formative research experiences from from the start of their university studies should be strengthened. This aligns with Hernández and Vásquez (2022), who affirm that students' predisposition should be addressed "from the beginning of academic training, as negative as positive attitudes towards research are attributable to personal agents (emotions) and exogenous agents such as research teaching-learning" (pp. 74-75).

Among the external agents is the research training provided at the beginning of university studies. As noted by Corona (2023), this training should not be limited to specific subjects but should be viewed as an integral part of the curriculum. Research should be approached not only as an academic subject but as a transversal teaching methodology embedded in general and professional training—an idea supported by the dimensions of university curricula and reflected in the experience described by Reyes (2022).

In that experience, it is stated that research training should be seen as a continuous formative milestone. The entire curriculum should be infused with research experiences, creating a climate where progressive, ongoing exposure to research becomes part of students' "natural habitat." To achieve this, institutions must offer participation opportunities that help consolidate students' research skills and experiences, fostering and positive attitudes. Such experiences may include participation in research projects, research groups, workshops, participation in conferences alongside professors, and academic exchanges with other institutions. Therefore, dissemination plays a critical role. If students are unaware of the existence of research groups or opportunities to participate in institutional projects, they are unlikely to engage, as reflected in the findings of this research. In other words, institutions must develop well-defined and robust policies that focus specifically on students.

A study conducted by Sanabria et al. (2013) on medical students in Granada, showed that students generally held a neutral attitude towards research. However, those who participated in research with professors improved attitudes compared to those who did not—findings that are consistent with those of

Corrales-Reyes et al. (2023). These results confirm the existence of a developmental threshold towards positive favourability, which this study supports, reinforcing the importance of mechanisms that facilitate student participation in research projects, groups, and workshops, alongside with professors who mentor and support future researchers.

Palacios (2021), in a systematic review of university students' attitudes towards research, found that at least 50% of students held favourable attitudes, while just over 40% had unfavourable ones. A small proportion held moderately favourable attitudes. In comparison, this study found that, when favourability was examined across three dimensions (*professorial influence*, *institutional influence*, *predisposition*), most of the dimensions were favourable in all three institutions. This highlights the need to further consolidate institutional training strategies to strengthen these influences and enhance students' predisposition—transforming them into very favourable outcomes.

Finally, the study by Rojas-Solís et al. (2021) shows that students displayed attitudes ranging from regular to unfavourable. This variation was attributed to the institutional training model, students' personal interest, and university policies that either promote or hinder favourable attitudes towards research. While their findings differ from the present study's, the conclusion is similar: that not only students' predisposition matters, but also professorial and institutional influences—particularly those shaped by training models and institutional policies.

Conclusions

The university students surveyed show favourable attitudes towards research, as evidenced by the overall analysis of the three institutions. This is supported by a favourable predisposition and professorial influence, which were both favourable in all three institutions. Regarding institutional influence, UDEC shows a favourable level, while UNACH and ISFODOSU show a moderately favourable level.

This allows us to conclude that there are basic conditions to consolidate students' research training. Not only do the conditions exist, but there is also a developmental threshold pointing towards very favourable conditions, according to the highest percentile achieved.

To reach this stage, institutions should take actions that promote greater cohesion among existing initiatives (at the level of educational models and institutional policies such as inclusion, promotion, dissemination, and equivalence of seal hours). They should also encourage more sharing of professors' own research, undertake complementary initiatives to the Research

Methodology courses that support research group efforts, provide ongoing training through workshops for students and professors, exchange research experiences with other institutions, conduct research exercises, and implement research-based learning methodologies across the curriculum. Additional actions may include offering student research awards, research tours, fairs, scientific events, and grants.

Recommendations

The results of this research allow for several recommendations:

- a. Universities should review their curricula to ensure that research extends beyond the inclusion of one or more specific subjects. Research training should be integrated as a cross-cutting element across all subjects of the curriculum.
- b. Establish research groups or seedbeds.
- c. Involve students in faculty-led research projects.
- d. Establish research funds exclusively for student researchers supervised by faculty members.
- e. Create exchange programs for students from different majors, faculties, and universities.
- f. Organise student research conferences by major, faculty, and institution-wide.
- g. Establish formative milestones at various points in the student's course of study.
- h. Create research scholarships (for postgraduate studies) specifically aimed at students who achieve outstanding academic performance in their theses.
- i. Provide mentoring for final degree projects, including collaboration with academics from other institutions.
- j. Arrange laboratory tours and interviews with notable scientists of the region and the country.
- k. Hold research festivals and fairs for undergraduate students, offering awards such as research trips, internships, and short stays at other national and international universities.

Conflict of interest

The researchers confirm that they have no conflict of interest.

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