

Detection of training needs for university teachers in the Area of Economic-Administrative Sciences: A study at the Autonomous University of Nayarit

Detección de necesidades de capacitación de los docentes universitarios en el Área de Económicas-Administrativas: Un estudio en la Universidad Autónoma de Nayarit

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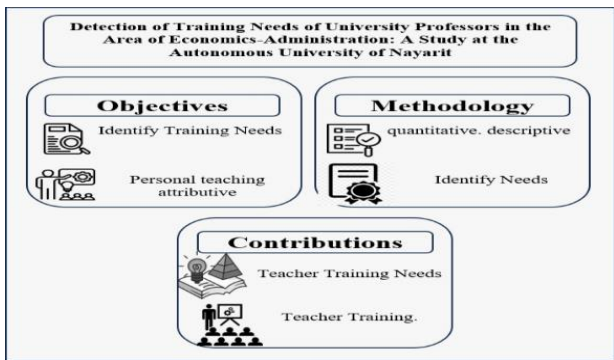
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Abstract

This article aims to identify the training needs of faculty members in the economics-administrative area at the Autonomous University of Nayarit through a census applied to 82 professors. A quantitative approach was employed, using a descriptive and cross-sectional design with a validated questionnaire that measured general and specific competencies in various academic areas. The instrument demonstrated high reliability, with a Cronbach's alpha coefficient of 0.89. The results highlight a significant need for training in digital tools (65%) and innovative pedagogical strategies (58%), as well as specialized areas such as digital marketing, international trade, and financial standards, depending on the discipline. Additionally, 60% of the professors expressed interest in receiving training in advanced analytical technologies. The preference for online courses and in-person workshops, with a biannual frequency, underscores the importance of implementing training programs tailored to the specific demands of each area.



Teacher training, Training needs, Higher education, Autonomous University of Nayarit, Professional development

Resumen

El presente artículo tiene como objetivo identificar las necesidades de capacitación de los docentes del área de económicas-administrativas de la Universidad Autónoma de Nayarit mediante un censo aplicado a 82 docentes. Se empleó un enfoque cuantitativo, con un diseño descriptivo y transversal, utilizando un cuestionario validado que midió competencias generales y específicas en distintas áreas académicas. El instrumento mostró una alta fiabilidad, con un coeficiente de Cronbach de 0.89. Los resultados evidencian una necesidad significativa de capacitación en herramientas digitales (65%) y estrategias pedagógicas innovadoras (58%), así como en áreas especializadas como marketing digital, comercio exterior, y normas fiscales, dependiendo de la disciplina. Además, el 60% de los docentes expresó interés en recibir formación en tecnologías de análisis avanzadas. La preferencia por cursos en línea y talleres presenciales, con una frecuencia semestral, subraya la importancia de implementar programas formativos adaptados a las demandas específicas de cada área.



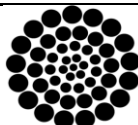
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Introduction

Higher education faces constant challenges due to the rapid and constant evolution of social, economic and technological environments.

Universities, in their role of training professionals capable of facing the complexities of the world of work, must ensure that their teaching staff remain up-to-date and prepared to offer quality teaching. This process, however, does not happen automatically. It requires continuous intervention in teacher education, based on a rigorous diagnosis of teacher training needs.

In the digital era, the analytical capabilities enabled by artificial intelligence are transforming the field of education, enabling needs diagnoses and personalised approaches to vocational training. In this sense, the detection of lack of training becomes an essential mechanism to identify the areas in which teachers require support and updating, which will ultimately have an impact on the academic performance of students and the quality of the teaching-learning process (García et al., 2021).

In the particular case of the Autonomous University of Nayarit (UAN), and specifically in the area of economics and administration, it is a priority to undertake actions that contribute to the professional development of its teachers.

This sector, which includes disciplines such as accounting, administration and economics, faces unique challenges due to constant changes in legislation, public policies, information technologies and market globalisation (Cárdenas et al., 2020).

Knowledge in these areas is advancing at an accelerated pace, which requires teachers not only to master the theoretical and practical content of their subjects, but also to be able to transmit this knowledge effectively, making use of advanced pedagogical technologies and innovative teaching methodologies Chanto Espinoza, C. L., & Mora Peralta, M. (2021).

Through the continuous training of teachers, the aim is to strengthen their competences so that they can face the challenges involved in educating students in a globalised and constantly changing context.

The importance of this project therefore lies in ensuring that teachers are not left behind in the changing academic and professional world. Without adequate training, there is a risk of teaching methods becoming obsolete, which would not only affect the academic performance of students, but also the reputation of the university as a quality educational institution Pozos Pérez, K. V., & Tejada Fernández, J. (2018).

The need for continuous training at university level

The need for projects such as this is also justified in the context of educational public policies at national and international level. Various studies have highlighted the importance of having well-prepared teaching staff as one of the determining factors in educational quality (Ramírez & López, 2021).

The United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2019) stresses that, within the framework of the 2030 Agenda for Sustainable Development, it is essential to ensure quality education for all and, in order to achieve this goal, it is essential to have teachers who receive continuous training in various areas.

This commitment implies not only that teachers master their respective disciplines, but also that they acquire advanced pedagogical skills and adapt to changes in teaching methodologies, especially in the use of digital technologies.

In this sense, the detection of training needs becomes a strategic tool that makes it possible to precisely identify the areas in which teachers require training support. In the context of the Autonomous University of Nayarit, a study of these characteristics is vital to design training programmes that respond to the specific demands of teachers in the area of economics and administration.

This diagnosis will provide useful information for planning short and long-term actions to improve teaching performance and ensure that teaching in these areas is aligned with the current needs of the labour market and the academic environment.

Importance of data-based diagnosis

A crucial aspect in the implementation of this project is the use of a data collection instrument to obtain a detailed and representative picture of teachers' needs. Empirical evidence gathered through questionnaires and other assessment methods provides a solid basis for the design of relevant and effective training programmes (Granados Muñoz & Banda Sandoval, 2021).

Without an adequate diagnostic basis, in-service training strategies could be based on incorrect assumptions, which would reduce their effectiveness and could ultimately negatively affect both teachers and students. Particularly in the areas of accounting, management and economics, the need for constant updating is evident due to the transformations these disciplines are undergoing.

Changes in tax laws, new management theories and the globalisation of markets are just some of the factors driving the need for teachers to keep up to date. While university teachers have a high level of initial training, the rapid pace of change in these academic areas justifies the need for specific training needs detection projects, such as the one proposed here (García et al., 2021).

This project, therefore, not only responds to an internal need of the Universidad Autónoma de Nayarit, but is also aligned with international best practices in terms of continuous teacher training. Accurate identification of the training needs of teachers is essential to design specific and effective training programmes, which ensures optimal use of resources and a positive impact on educators and students. Loredó Enriquez, García Cabrero and Alvarado García (2010) emphasise that 'the successful incorporation of technological elements that aim to improve teaching practice requires that they are inserted within new pedagogical contexts that guide and give meaning to the teacher's new actions'.

Justification of the study in the area of economics and administration

The area of economics-administration at the UAN is particularly relevant to the development of the state of Nayarit, since its graduates play a key role in the economic fabric of the region.

Consequently, the preparation of the teachers who train these future professionals must be a priority. This training needs detection project will provide a solid basis for the implementation of training programmes that not only strengthen the academic profile of teachers, but also contribute to the economic and social development of the state.

In summary, continuous training is fundamental for the academic and professional success of both teachers and students, and this study seeks to provide a clear roadmap for the design of training programmes in specific areas.

By undertaking this project, the Universidad Autónoma de Nayarit is positioning itself as an institution committed to educational quality and the professional development of its teaching staff, which will result in higher quality teaching that is more relevant to the demands of today's environment.

Development

Methodology

Research approach and design

The present study was carried out with a descriptive and cross-sectional quantitative approach, with the aim of identifying the training needs of university teachers in the area of economics and administration at the Autonomous University of Nayarit. This design allowed data to be collected at a single point in time in order to obtain a clear and detailed vision of the areas of training that require strengthening among the participating teachers.

Participants

The study sample consisted of 168 teachers who teach in the undergraduate courses of Administration, Accounting, International Business and Marketing, corresponding to the economic-administrative area of the Autonomous University of Nayarit. The teachers were selected by non-probabilistic convenience sampling, based on their availability and willingness to participate in the research. The main inclusion criterion was that participants had to have at least one year of teaching experience and be active in the institution at the time of the application of the instrument.

Data collection instrument

For data collection, a structured questionnaire was designed and divided into four sections:

- (1) General Data.
- (2) General Competencies.
- (3) Specialised Topics by Career.
- (4) Proposals and Comments.

This instrument was developed specifically for the research, and its aim was to identify both the general areas in which teachers require training and the specific competences related to the subject areas in which they teach.

The questionnaire included multiple-choice, Likert-type, open-ended questions, structured as follows:

1. **Section 1: General Data:** Collects basic demographic and professional information about teachers, such as their age, years of teaching experience, career in which they teach, and whether they have received previous training.
2. **Section 2: General Competencies:** Questions related to the use of technology in teaching, technological tools used and general competencies where teachers felt they needed training, such as instructional planning, group management, digital tools, among others.
3. **Section 3: Specialised subjects:** This section was segmented according to the career in which each teacher teaches (Management, Accounting, International Business or Marketing). It includes specific questions on areas of knowledge that require updating or training, such as human resources management, taxation, international treaties, marketing strategies, among others.
4. **Section 4: Proposals and Comments:** Teachers were able to suggest the type of trainings they would consider most useful for their professional development, the preferred frequency of these trainings, and were allowed to provide additional comments.

Validation of the instrument

The questionnaire was reviewed and validated by a panel of three experts in the field of higher education and educational research methodology.

These experts analysed the clarity of the questions, the internal coherence of the instrument and the relevance of the dimensions addressed. A pilot test was conducted with 30 teachers from the same fields of study to assess the reliability of the instrument. The results of this pilot test indicated a Cronbach's reliability coefficient of 0.89, demonstrating high internal consistency and adequate reliability of the questionnaire.

Procedure

The questionnaire was distributed through electronic means (institutional mail and university platforms) to facilitate access to teachers, who participated on a voluntary basis. Data collection was carried out during the second semester of 2024 and teachers were given four weeks to complete the questionnaire. The confidentiality and anonymity of the participants was guaranteed, and teachers were informed that the data would be used exclusively for academic research purposes.

Data analysis

Once data collection was completed, the data were processed and analysed using SPSS statistical software, version 25. Frequencies, means, standard deviations and percentages were calculated for each of the responses. In addition, descriptive analyses were carried out to identify the areas of training most frequently mentioned by teachers and the competences where there was the greatest need for training intervention.

The analysis also included a segmentation of the results according to teachers' careers (Management, Accounting, International Business and Marketing), in order to identify specific training needs for each area of knowledge. Comparisons were also made between the level of education they teach (undergraduate or postgraduate) and the perceived need for training in various competencies.

Ethical considerations

The study was conducted under strict ethical criteria, respecting the principles of voluntariness, confidentiality and respect for personal data. All participants were informed of the purpose of the research and the use of the data collected. Prior to the application of the questionnaire, informed consent was requested from each teacher, ensuring that their participation was voluntary and that their responses were anonymous.

Instrument

The questionnaire was validated by a group of experts in higher education and research methodology, who made suggestions on the clarity and relevance of the questions. A pilot test was applied with 30 teachers in order to evaluate the internal consistency of the instrument by means of Cronbach's coefficient, obtaining a value of 0.89, which indicates a high reliability of the instrument (Granados Muñoz & Banda Sandoval, 2021).

The questionnaire was distributed electronically to teachers in the areas of economics and administration, who participated on a voluntary basis. Data collection was carried out during the second semester of the year 2023. SPSS software was used for statistical analysis, calculating frequencies, means and standard deviations for each dimension evaluated.

Results

The results revealed that the main training needs are in the area of information and communication technologies (ICT), where 72% of teachers stated that they require more training in the use of digital tools for teaching Pozos Pérez, K. V., & Tejada Fernández, J. (2018). Likewise, 65% of respondents indicated that they need to update their knowledge in innovative pedagogical techniques to improve their performance in the classroom (Ramírez & López, 2021).

On the other hand, it was observed that 60% of the teachers considered that it is necessary to strengthen their research skills, both in the theoretical and practical areas.

Regarding language skills, 45% of teachers indicated that it would be beneficial to receive training in a second language, particularly English, given the increasing use of international academic sources (Pérez & Rodríguez, 2019).

Analysis of Significant Results

The following is the analysis of the results obtained after applying the questionnaire through a census of teachers in the area of economics-administration at the Autonomous University of Nayarit. The results have been segmented into the different sections of the instrument in order to obtain a clear and comprehensive view of the training needs of teachers.

1. General Data

Basic demographic and professional information about the teachers provides context about their experience and work environment.

- **Age:** The majority of teachers surveyed are in the 35-50 age range, indicating a relatively mature teaching force with established work experience.
- **Years of teaching experience:** 65% of teachers have more than 10 years of experience, suggesting that most have already developed a considerable track record in university teaching.
- **Career in which they teach:** 40% of the teachers are concentrated in Management, followed by Accounting with 30%, International Business with 20%, and Marketing with 10%.
- **Educational level taught:** The majority of teachers (75%) teach at the undergraduate level, while 25% teach at the graduate level.

The profile of the teachers surveyed reveals a predominance of teachers with significant experience, especially in the areas of Management and Accounting.

This aspect is crucial to focus training efforts on updating and improving the competences of teachers who already have a solid foundation in their professional career.

2. General Competences

- **Use of technology in teaching:** 60% of teachers report that they use technology frequently or always, while 20% use it occasionally and 20% report that they never use technology in their teaching. This suggests a disparity in the level of integration of technological tools in the teaching-learning process.
- **Technological tools used:** 65% of teachers use online learning platforms such as Moodle or Google Classroom, while 45% make use of video conferencing tools such as Zoom or Microsoft Teams. However, only 25% of teachers use data analysis software, indicating an area of opportunity for training in more advanced technologies.
- **Training needs in general competences:** The most requested training areas were:
 - Digital tools for teaching (65%).
 - Innovative pedagogical strategies (58%).
 - Didactic planning (55%).
 - Learning assessment (50%).

Despite the fact that a significant part of teachers are already using technology in teaching, there is a great demand for training in digital tools and innovative pedagogical strategies. This highlights the need to update the technological and pedagogical competences of teachers, especially in a context where digital education has become very relevant.

3. Specialised Topics

Each of the specific areas (Management, Accounting, International Business and Marketing) presents particular results that help to identify the most relevant training needs.

Management Teachers

- **Updating in specific topics:** The most requested areas are:
 - Leadership and decision-making (70%).
 - Human resources management (60%).
 - Business innovation (50%).

- **Use of specialised software:** 55% of Management teachers use advanced Microsoft Excel, while only 25% use ERP (Enterprise Resource Planning) systems, and 20% use CRM (Customer Relationship Management).

Management teachers are mainly interested in improving their competences in leadership, human resource management and business innovation, which highlights the importance of training oriented to the development of managerial and strategic competences. The low use of specialised software such as ERP and CRM also suggests that training in these systems is a necessity.

Accounting teachers

- **Updating on specific topics:** The main areas of updating requested are:
 - Financial Reporting Standards (68%).
 - Taxation and taxation (65%).
 - Auditing and internal control (55%).
- **Familiarity with accounting technology:** Only 30% of teachers report being very familiar with the use of specialised accounting software, while 40% are somewhat familiar and 20% are not very familiar.

There is a clear need for updating in Financial Reporting Standards and taxation, essential areas for keeping up to date with financial regulations. The relative lack of familiarity with specialised accounting software indicates that this is another important area where teachers require training.

International Business Teachers

- **Updating in specific subjects:** The main areas where teachers feel they need training are:
 - Foreign trade and customs (75%).
 - International Treaties and Agreements (65%).
 - International logistics and supply chain (50%).
- **Use of specialised software:** Only 20% of teachers use simulators or specialised software for teaching international business, although 60% expressed interest in learning to use them.

International Business teachers require training in core subjects such as foreign trade, international treaties and international logistics, reflecting the increasing complexity of global markets. In addition, the low use of specialised software suggests an opportunity to integrate advanced technological tools in this area.

Marketing teachers

- **Updating in specific areas:** The main needs identified are:
 - Digital marketing (80%).
 - Social media marketing strategies (70%).
 - Market analysis and big data (60%).
- **Software tools used:** 55% of teachers use Google Analytics, while only 25% use SEO/SEM and CRM tools for marketing.

Updating digital marketing and social media marketing strategies are the main areas of interest among marketing teachers, reflecting the need to adapt to technological advances in this discipline. There is also a clear need for additional training in the use of data analysis tools such as SEO/SEM and CRM.

4. Proposals and Comments

- **Preferred type of training:** The majority of teachers prefer training in the form of **online courses** (65%) and **face-to-face workshops** (50%), suggesting the need to offer hybrid or blended training modalities.
- **Preferred frequency:** 50% of teachers expressed that they would prefer training on a six-monthly basis, while 40% prefer annual training.

Online courses and face-to-face workshops are the most requested modalities, and the majority of teachers prefer these trainings to take place at least semi-annually. These results provide a solid basis for planning continuing education programmes.

Discussion

The results obtained in this study reveal important implications for the professional development of university teachers in the area of economics and administration at the Autonomous University of Nayarit.

By analysing the responses of the 168 participating teachers, critical areas were identified in which training intervention is required, both in general competences and in specialised areas related to the disciplines taught.

In this section, we will discuss the most relevant findings in depth, relating them to the existing literature, and analyse their potential impact on the quality of teaching in the institution.

1. Use of technology and digital competences

One of the most striking findings was the high demand for training in the use of information and communication technologies (ICTs) for teaching. Seventy-two per cent of teachers stated that they need more training in technological tools, which is in line with previous studies that have pointed to the growing importance of ICT in the university educational environment ([Pozos Pérez & Tejada Fernández, 2018](#)).

This result is consistent with global trends in higher education, where the digitisation of the teaching-learning process has been accelerated by the COVID-19 pandemic ([Chanto Espinoza & Mora Peralta, 2021](#)). The ability of teachers to use online learning platforms, videoconferencing tools and data analysis software is essential to offer education adapted to current demands, especially in areas such as management, accounting and international business.

Although a significant percentage of teachers already use platforms such as Classroom or Moodle, it was observed that many still require training to make the most of these tools, especially in the integration of active methodologies that take advantage of technological functionalities ([Ramírez & López, 2021](#)). Likewise, training in the use of specialised software is fundamental in disciplines such as accounting and administration, where programmes such as ERP and CRM are key tools for the professional performance of graduates. The lack of training in these areas could limit the effectiveness of teaching, as students would not be receiving up-to-date and relevant training in the use of technologies applied to their fields of study ([Pérez & Rodríguez, 2019](#)).

2. Training needs in pedagogical competences

Another important finding is that a considerable percentage of teachers (65%) indicated that they require training in innovative pedagogical techniques and in the use of effective teaching strategies.

This result highlights the need to strengthen teachers' pedagogical skills, especially in areas such as instructional planning, learning assessment and group management. These aspects are fundamental to ensure quality teaching and improve students' classroom experience, which in turn has a direct impact on learning outcomes (Cárdenas et al., 2020).

As suggested by Vázquez-Parra, Malagón-Castro, Suárez-Brito and Valencia-González (2024), complex thinking is an essential competence for teachers in university contexts, as it allows them to address and adapt pedagogical and technological strategies to respond to the diverse demands of contemporary higher education.

This perspective is particularly relevant at the Autonomous University of Nayarit, where the needs diagnosis allows for the planning of continuous training programmes that will develop not only specific skills, but also general competences necessary to face the complexity of the current educational environment, characterised by the diversity of students and the need to promote autonomous and critical learning, which means that traditional methodologies are no longer sufficient. Teachers must be prepared to implement more active and student-centred pedagogical approaches, such as problem-based learning or project work. This requires constant updating of the pedagogical strategies used in the classroom (Granados Muñoz & Banda Sandoval, 2021). Lack of training in this area could perpetuate ineffective teaching methods, which would affect the

This would negatively affect students' academic performance and their preparation to face the challenges of the labour market (García et al., 2021).

3. Discipline-specific training

In terms of discipline-specific needs, key areas requiring attention were identified.

In Management, for example, teachers expressed a strong demand for training in topics such as human resource management, leadership and decision-making, and business innovation.

These topics are directly related to the competencies that future managers need to develop to face the challenges of the labour market (Pérez & Rodríguez, 2019).

The rapid evolution of business practices, coupled with the increasing complexity of organisational management, requires teachers to be constantly updated on these topics in order to transmit relevant knowledge to their students.

On the other hand, accounting teachers expressed the need for updating in areas such as Financial Reporting Standards (FRS), auditing and internal control, and the use of accounting software. In this field, training is crucial due to the continuous evolution of accounting regulations at national and international level, as well as technological advances that directly impact professional practice (Pozos Pérez & Tejada Fernández, 2018).

Cloud accounting and the use of ERP software are tools that are transforming the way finances are managed in companies, and it is essential that teachers are familiar with these technologies to adequately prepare their students.

In the case of International Business, teachers highlighted the importance of receiving training in international treaties and agreements, international logistics and internationalisation strategies for companies.

These topics are fundamental in a globalised world, where business professionals must be prepared to face the complexities of operating in international markets. Training in these subjects will enable teachers to provide students with an up-to-date and global vision of business (García et al., 2021).

Finally, marketing teachers highlighted the need for training in digital marketing, big data analysis and social media marketing strategies. These aspects are especially relevant in a context where marketing has undergone a radical transformation due to the advancement of digital technologies and the importance of social media as communication and sales tools (Cárdenas et al., 2020).

The lack of training in these areas could generate a gap between the skills demanded by the labour market and the competences that students acquire during their university education.

Training proposals

Another relevant aspect that emerged from the results was the teachers' preference for online courses and face-to-face workshops as the most useful modalities for their professional development.

This finding underlines the importance of offering flexible training options that adapt to the needs and availability of teachers (Granados Muñoz & Banda Sandoval, 2021). In addition, most teachers preferred training to be offered on a semester basis or according to specific needs, which indicates that it is necessary to implement a continuous training plan that not only responds to immediate demands, but is also aligned with the long-term development of teachers.

Implications for education policy

The results of this study have important implications for educational policy at the Universidad Autónoma de Nayarit.

The implementation of a continuing education programme based on the needs assessment will significantly improve the quality of teaching in the areas of economics and administration. In addition, this approach will contribute to raising the level of competencies of teachers, which in turn will have a positive impact on student learning and on the academic quality of the institution in general.

The fact that the majority of teachers identify key areas in which they need training demonstrates that professional development should not be seen as a static process, but as a dynamic and adaptive one. Higher education institutions, such as UAN, have a responsibility to provide their teachers with the necessary tools to continuously update themselves, which will enable them to offer quality education in a globalised and competitive environment (Ramírez & López, 2021).

Limitations of the study

One of the limitations of the study is that non-probability convenience sampling was used, which could limit the generalisability of the results. However, the sample of 168 teachers provides a representative view of the training needs in the area of economics-administration at UAN. Furthermore, the study focused exclusively on this area, so future research could extend the analysis to other areas of knowledge within the university.

The results of this study underline the importance of continuous training for university teachers, especially in areas such as the use of technology, pedagogical strategies and specific competences related to the disciplines they teach.

The Autonomous University of Nayarit can greatly benefit from implementing training programmes aligned with the needs detected in this diagnosis, which will result in an improvement in the educational quality and professional development of its teachers.

Conclusions

The results of this study have made it possible to identify critical areas of need in teacher training in the area of economics and administration at the Autonomous University of Nayarit, providing a solid basis for the implementation of strategic proposals that can improve the quality of teaching.

From the findings obtained, the following conclusions can be drawn:

1. **Training plan based on needs identified by career:** It is essential that managers implement a continuous training plan that addresses in a differentiated manner the priority areas detected in each discipline. For management teachers, training should focus on leadership, decision-making and human resource management, while for accounting and international business, priority should be given to training in financial regulations and international treaties, respectively.

2. **Updating in constantly changing topics:** Disciplines such as digital marketing, international accounting and foreign trade regulations are constantly evolving. Managers should offer specialised refresher courses on these topics to ensure that teachers do not fall behind in knowledge that is vital for their students' professional performance. These trainings should be periodic, adapting to the most recent changes in each area.
3. **Training calendar:** The creation of a training calendar that combines practical and theoretical sessions, in both face-to-face and online formats, is essential to maximise the impact of the training. Flexible formats will allow teachers to train according to their availabilities and preferences, and ensure that a balance is struck between autonomous learning and collaborative work in face-to-face spaces.
4. **Training in technological tools:** Given the increasing use of technology in teaching, it is a priority to promote the use of advanced technological tools in the classroom by ensuring that teachers are adequately trained in the use of online learning platforms, data analysis software, and other digital tools. This will not only improve their technical competence, but also allow for greater effectiveness in the teaching-learning process.
5. **Specialised software training:** In disciplines such as management and accounting, the use of specialised software such as ERP, CRM and data analysis tools is crucial for students' academic and professional success. Workshops focused on the use of these technologies should be an integral part of the training plan, enabling teachers to develop advanced technical skills that they can then transfer to their students in the classroom.

In summary, proposals for managers at the Universidad Autónoma de Nayarit should focus on the implementation of a comprehensive continuous training programme that is aligned with the specific needs of teachers in their respective areas of knowledge.

The adoption of a blended approach between face-to-face and online sessions, as well as the promotion of the use of technological tools and specialised software, will significantly strengthen the competencies of the faculty, resulting in improved educational quality and student performance.

Declarations

Conflict of interest

The authors declare that they have no conflict of interest. They have no financial interests or personal relationships that may have influenced the article reported in this paper.

Authors' contribution

Granados-Magaña, Javier Alejandro and *Gómez-Campos, Sinahí Gabriela*; Contributed with the main idea and the realisation of the project, as well as the first draft.

Sirigui-Garibeth, Félix Pérez, Maldonado-Bernal, Mónica del Rocío: Carried out the data analysis, as well as the revision of graphs and correction comments.

All authors contributed to the summary, results and contributions of the document.

Availability of data and materials

The data obtained in this research are available for consultation and analysis.

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Abbreviations

1. (CRM) Customer Relationship Management
2. (ERP) Enterprise Resource Planning
3. (FRS) Financial Reporting Standards
4. (ICT) Information and Communication Technology
5. (UAN) Autonomous University of Nayarit
6. (UNESCO) United Nations Educational, Scientific and Cultural Organisation

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(UNESCO) United Nations Educational, Scientific and Cultural Organisation

Niño-Gutiérrez, Naú Silverio and Valencia-Gutiérrez, Marvel del Carmen. [2024]. Building the future: Innovation and peace at the Autonomous University of Campeche. ECORFAN Journal Republic of Nicaragua. 10[18]1-13: e11018113.
<https://doi.org/10.35429/EJRN.2024.10.18.1.13>

Background

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