

Challenges and opportunities in the teaching of professional values in technical careers: The case of Foreign Trade Engineering



Desafíos y oportunidades en la enseñanza de valores profesionales en las carreras técnicas: El caso de Ingeniería en Comercio Exterior

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Abstract

The purpose of this study is to identify the challenges and opportunities in the teaching of professional values in the Foreign Trade Engineering program at the University of Guayaquil. Given that the training of technical professionals in a globalized world demands not only technical competencies, but also a solid ethical foundation, this study seeks to analyze how values are integrated into the curriculum and what barriers hinder their effective implementation. A mixed methodology was employed, combining quantitative and qualitative approaches to obtain a comprehensive view of the phenomenon. Data collection included surveys of 100 students and 10 faculty members, as well as semi-structured interviews with 3 faculty managers. In addition, participant observations were conducted in classrooms to analyze pedagogical practices. The population consisted of students from different years of the Foreign Trade Engineering program, professors who teach

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technical subjects, and managers responsible for academic training at the university. Among the main findings, a generalized perception of the importance of professional values for success in the workplace stands out. However, significant barriers were identified, such as the lack of time in the curricula, insufficient teacher training in values-oriented pedagogies, and the absence of formal mechanisms to evaluate the ethical development of students. Despite these challenges, both teachers and administrators showed a willingness to improve the integration of values in the curriculum, which represents an opportunity to strengthen the comprehensive education of students.

Keywords: Professional values; Technical education; Foreign trade engineering

Resumen

El presente estudio tiene como objetivo identificar los desafíos y oportunidades en la enseñanza de valores profesionales en la carrera de Ingeniería en Comercio Exterior en la Universidad de Guayaquil. Dado que la formación de profesionales técnicos en un mundo globalizado no solo demanda competencias técnicas, sino también una sólida base ética, este estudio busca analizar cómo se integran los valores en el currículo y qué barreras dificultan su implementación efectiva. Se empleó una metodología mixta, combinando enfoques cuantitativos y cualitativos para obtener una visión integral del fenómeno. La recolección de datos incluyó encuestas a 100 estudiantes y 10 docentes, así como entrevistas semiestructuradas con 3 directivos de la facultad. Además, se realizaron observaciones participantes en aulas de clase para analizar las prácticas pedagógicas. La población estuvo compuesta por estudiantes de distintos años de la carrera de Ingeniería en Comercio Exterior, docentes que imparten asignaturas técnicas, y directivos responsables de la formación académica en la universidad. Entre los principales hallazgos, se destaca una percepción generalizada de la importancia de los valores profesionales para el éxito en el ámbito laboral. Sin embargo, se identificaron barreras significativas, como la falta de tiempo en los planes de estudio, la insuficiente formación de los docentes en pedagogías orientadas a valores, y la ausencia de mecanismos formales para evaluar el desarrollo ético de los estudiantes. Pese a estos desafíos, tanto docentes como directivos

mostraron disposición para mejorar la integración de valores en el currículo, lo que representa una oportunidad para fortalecer la formación integral de los estudiantes.

Palabras clave: Valores profesionales; Educación técnica; Ingeniería en Comercio Exterior

Introduction

Training in professional values within technical careers, such as Foreign Trade Engineering, is a significant challenge in the educational context of developing countries such as Ecuador. UNESCO has stressed the need to integrate ethical and moral values in education, emphasising that the objective is not only to train technically competent professionals, but also upright citizens who contribute to social welfare and sustainable development.

In this context, several researchers such as (Acebo Rivera, 2016); (Fresno Chavez, 2018) (Gómez, 2018) (Hirsch Adler, 2019); (Quijada, 2019) (Moreno Jácome, Ramírez Ramírez, & Escobar Pérez, 2020) all agree that the teaching of values in technical careers faces multiple challenges. On a global level, rapid technological evolution and globalisation have redefined the dynamics of the labour market, demanding not only technical skills, but also robust ethical training that allows professionals to act responsibly in multicultural and changing environments. In Ecuador, (Constituyente., 2008) emphasises that these challenges are intensified by the need to adapt education to local social and economic realities, marked by inequality and poverty.

By its nature, the degree in Foreign Trade Engineering requires professionals not only to master technical knowledge, but also to act with ethical responsibility in an environment characterised by interculturality and the complexities of global trade. This is where training in values becomes a fundamental pillar, as it enables future foreign trade engineers to face ethical dilemmas and make decisions that consider economic as well as social and environmental aspects.

In an increasingly competitive and globalised world of work, the training of technical professionals demands not only specialised knowledge, but also a solid set of ethical and professional values. In this sense, several authors such as (Hirsch, 2018) (Ramos, 2019) (Sheveleva, 2020) (Ramírez VKG, 2022), (Vieira do Nascimento, 2022) (Castro Maldonado, 2023) (Castro, 2024) emphasise that

honesty, responsibility, respect, solidarity and professional ethics are fundamental for the successful performance of graduates in their respective areas of work and for the development of a fairer and more equitable society.

The University of Guayaquil, as an institution of higher education, plays a crucial role in the training of these future professionals. However, the effective integration of professional values in the curricula of technical careers presents several challenges. These challenges are compounded by factors such as the growing demand for highly specialised technical professionals, the rapid evolution of technologies and the diversity of socio-cultural contexts in which students develop.

The main objective of this study is to identify the challenges and opportunities faced by the University of Guayaquil in integrating professional values into the teaching of its technical careers. By understanding the challenges and taking advantage of the opportunities, the University of Guayaquil will be able to develop more effective pedagogical and curricular strategies to foster the development of technical competencies and professional values in its students. In this way, it will contribute to the training of highly qualified professionals committed to the sustainable development of society.

The Ecuadorian education system, through policies of the National Development Plan, promotes the inclusion of values in the curriculum, not only as a complement, but as an integral part of the teaching-learning process. However, the effective implementation of values education faces obstacles such as lack of resources, resistance to change in some educational sectors, and the need for continuous training for teachers.

This article addresses the challenges and opportunities in the teaching of professional values in Foreign Trade Engineering in Ecuador, through a mixed methodological approach that combines the use of questionnaires and interviews. It seeks to identify the most effective strategies for instilling ethical values in students, and to analyse how these values can influence their academic and professional performance.

Materials and methods

The study will adopt a mixed methodology, combining quantitative and qualitative approaches. This strategy will allow for a more holistic and in-depth understanding of the phenomenon, integrating

precise numerical data with contextualised information obtained from the perceptions and experiences of the participants.

Population and Sample

The study population will be made up of members of the university community of the University of Guayaquil, specifically:

- Students: A sample of 100 students from different technical careers will be selected, considering representativeness criteria such as year of study and gender.
- Teachers: A sample of 10 teachers who teach subjects in technical careers will be selected, considering criteria such as seniority in the institution and area of specialisation.
- Managers: The 3 main managers of the faculty or school where the technical courses are taught will be interviewed.

Data Collection Techniques and Instruments

Quantitative approach:

- Survey: A structured questionnaire with closed and open questions will be designed to collect information on students' and teachers' perceptions of the importance of professional values, pedagogical practices used and perceived barriers.

Qualitative approach:

- Participant observation: direct classroom observations will be conducted to analyse pedagogical practices and learning climate.
- Semi-structured interviews: Individual in-depth interviews will be conducted with teachers and managers to explore their experiences, opinions and perspectives on teaching professional values.

Data Collection Procedure

1. Access to the field: Authorisation will be sought from the university authorities to carry out the research.
2. Sample selection: Participants will be selected according to the established criteria.
3. Application of instruments: The surveys will be applied, observations and interviews will be carried out in a determined period of time.
4. Data recording: Data will be recorded in databases and in audio or video files (in the case of interviews).

Data Analysis

- Quantitative analysis: Numerical data obtained from the surveys will be analysed using descriptive and inferential statistics, using statistical software such as SPSS or R.

- Qualitative analysis: Qualitative data obtained from observations and interviews will be analysed using coding, categorisation and thematic analysis techniques, using qualitative analysis software such as Atlas.ti or NVivo.

Ethical Considerations

The ethical principles of the research will be respected, guaranteeing:

- Voluntariness: The participation of the subjects will be voluntary.
- Confidentiality: The confidentiality of the data and the identity of the participants will be guaranteed.
- Anonymity: Data will be presented in an aggregated and anonymous form.
- Informed consent: Participants will sign an informed consent form before participating in the research.

Results

Perception of the importance of values: The majority of students and teachers surveyed consider professional values to be very important for success in the workplace. However, there is a significant gap between the perception of their importance and the frequency with which they are addressed in lessons.

Pedagogical practices: The results reveal that pedagogical practices focused on the transmission of theoretical knowledge predominate in the classroom, leaving little room for the development of socio-emotional skills and values.

- Perceived barriers: The main barriers identified are:
 - Lack of time in curricula.
 - Lack of teacher training in values-oriented pedagogies.
 - Lack of assessment mechanisms for values.
 - Lack of integration of values in practical projects.
- Qualitative results

Classroom observation: Observations revealed that interactions between teachers and students focus mainly on technical problem solving, with little opportunity to reflect on the ethical implications of professional decisions.

Teacher interviews: The teachers interviewed acknowledged the importance of instilling professional values, but noted significant difficulties in integrating them into their teaching practices,

attributing these limitations to the pressure to comply with curricular content and the lack of appropriate teaching resources.

Interviews with principals: Managers agreed on the importance of values, but pointed to the need to develop clearer institutional policies and teacher training strategies to promote their integration into the curriculum.

Discussion

The results indicate a general consensus on the relevance of professional values. However, their integration in technical careers at the University of Guayaquil faces considerable challenges, such as the lack of time in the curricula, insufficient teacher training in values-oriented pedagogies, and the absence of formal mechanisms to assess the development of ethical competencies.

These findings are consistent with previous research that has pointed to the difficulty of integrating values in highly specialised educational contexts. However, opportunities for improvement were also identified, such as the willingness of teachers to incorporate new pedagogical practices and the interest of managers in strengthening values education.

Strengthen teacher training: Implement continuous training programmes for teachers, focused on the development of pedagogical competencies for the teaching of values.

Incorporate values assessment: Design assessment instruments to measure the development of values competencies in students.

Develop didactic materials: Develop didactic materials that integrate values into the contents of the subjects.

Promote interdisciplinary projects: Encourage the implementation of projects that allow students to apply theoretical knowledge and develop socioemotional skills.

Create an institutional culture: Foster an institutional culture that values ethics and social responsibility.

This study concludes that, although the integration of professional values in technical careers at the University of Guayaquil faces several challenges, there are also significant opportunities to improve the comprehensive training of students. Implementing continuous teacher training programmes and developing mechanisms for the evaluation of ethical competencies are essential steps towards more holistic and effective teaching.

The findings reveal an urgent need to transform teaching practices from a focus on the transmission of theoretical knowledge to a more holistic approach that promotes the development of technical competencies and values. There is also a need for greater coordination between the different actors involved in the educational process, such as teachers, managers and students, in order to build an institutional culture that values ethics and social responsibility.

Among the main recommendations derived from this research, the following stand out:

Strengthen teacher training: Implement continuous training programmes that train teachers in active pedagogies and in the integration of values in their practices.

Develop teaching materials: Develop innovative teaching materials that allow students to reflect on the ethical implications of their professional decisions.

Incorporate values assessment: Design assessment instruments to measure the development of value competences in students and provide feedback to teachers.

Promote interdisciplinary projects: Encourage projects that link theoretical knowledge with professional practice and promote teamwork and collaboration.

Create an institutional culture: Foster an institutional culture that values ethics, social responsibility and innovation.

In summary, this study has highlighted the importance of integrating professional values in technical careers at the University of Guayaquil. By implementing the proposed recommendations, the institution will be able to train highly qualified professionals committed to the sustainable development of society.

References

- Acebo Rivera, M. L. (2016). LA FORMACIÓN DE VALORES IDENTITARIOS EN EL PROFESIONAL DE LA UNIVERSIDAD CUBANA CONTEMPORÁNEA. . *Didáctica Y Educación*, ISSN 2224-2643, 7(5), 55–70. .
- Castro Maldonado, J. J. (2023). La investigación aplicada y el desarrollo experimental en el fortalecimiento de las competencias de la sociedad del siglo XXI.. *Tecnura*, , 27(75), 140-174.

- Castro, V. P. (2024). Análisis contrastado de la Formación Académica en el Campo Profesional: Caso Instituto Superior Universitario Vida Nueva. . *Revista Ibérica de Sistemas e Tecnologias de Informação*, (E65), 578-593.
- Constituyente., A. N. (2008). *Constitución de la República del Ecuador*.
- Fresno Chavez, C. (2018). *La formación de valores: características*.
- Gómez, C. y. (2018). *La aventura de la moralidad (paradigmas, fronteras y problemas de la ética)*. . España: Alianza Editorial. Madrid,.
- Hirsch Adler, A. (2019). . Construcción de un estado de conocimiento sobre valores profesionales en México. *Revista electrónica de investigación educativa*, , 8(2), 1-23.
- Hirsch, A. y.-C. (2018). “Los valores en la formación universitaria. Opinión de los profesores de posgrado de la Universidad Nacional Autónoma de México”,. Mexico.
- Moreno Jácome, M. C., Ramírez Ramírez, L. N., & Escobar Pérez, J. Z. (2020). Revisión de educación en valores para el nivel superior en Latinoamérica. . *Revista Educación*, , vol. 44, núm. 1, Universidad de Costa Rica, Costa Rica. .
- Quijada, K. y. (2019). Profesores excelentes de la Universidad Nacional Autónoma de México: aciertos y desafíos. . *Revista Edetania de la Universidad Católica de Valencia*, , (55), 79-96. <https://revistas.ucv.es/index.php/Edetania/article/view/359/44>.
- Ramírez VKG, S. M. (2022). Los valores humanos entre jóvenes universitarios y su relación con el quehacer educativo cotidiano. . *Revista mexicana de Medicina Forense y Ciencias de la salud*, , 5(S3): 169-172. .
- Ramos, G. &. (2019). (Professional’s ethical formation and professional ethics of the professor. *Estudios Pedagógicos*, , 45(3), 185–199. Recuperado de <https://doi.org/10.4067/S0718-07052019000300185>.
- Sheveleva, A. (2020). The university teachers’ professional ethics from the students’ perspective. . *E3S Web of Conferences*,, 210. Recuperado de <https://doi.org/10.1051/e3sconf/202021018075>.
- Vieira do Nascimento, D. M. (2022). Acceso universal a la educación superior: Tendencias, barreras y factores impulsores. . *Revista Educación Superior Y Sociedad (ESS)*, , 34(1), 642-667. <https://doi.org/10.54674/ess.v34i1.4>.

