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**Teacher Autonomy and Its Influence on Instructional
Innovation in the Classroom**

**La autonomía docente y su influencia en la innovación
instruccional en el aula**

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Abstract

This study explores the relationship between teacher autonomy and instructional innovation within the context of secondary education. It investigates how the degree of freedom given to teachers in making pedagogical decisions affects their willingness and ability to adopt innovative practices. Through a mixed-methods approach involving surveys and interviews with 50 teachers from various subject areas, the findings reveal that higher levels of autonomy correlate with increased motivation, experimentation, and creative lesson design. However, institutional support and collaborative environments also play a crucial role in enabling teachers to fully exercise their autonomy. The results highlight the importance of policy frameworks that empower teachers while ensuring accountability and shared professional learning.

Keywords

Teacher autonomy
Instructional innovation
Classroom practices
Professional development
Educational policy

Resumen

Este estudio analiza la relación entre la autonomía docente y la innovación en la enseñanza dentro del contexto de la educación secundaria. Se investiga cómo el grado de libertad otorgado a los docentes para tomar decisiones pedagógicas influye en su disposición y capacidad para aplicar prácticas innovadoras. Mediante un enfoque mixto que incluyó encuestas y entrevistas a 50 docentes de diversas asignaturas, los resultados muestran que niveles más altos de autonomía están asociados con mayor motivación, experimentación y diseño creativo de clases. Sin embargo, el apoyo institucional y un entorno colaborativo también resultan fundamentales para que los docentes puedan ejercer plenamente su autonomía. Los hallazgos resaltan la importancia de políticas educativas que empoderen a los docentes y promuevan el aprendizaje profesional compartido.

Palabras clave

Autonomía docente
Innovación instruccional
Prácticas de aula
Desarrollo profesional
Política educativa

Introduction

In today's rapidly changing educational landscape, the role of the teacher has shifted from a passive transmitter of knowledge to an active facilitator of learning. As schools strive to respond to the diverse needs of students and the demands of 21st-century skills, the concept of instructional innovation has become central to educational improvement. At the heart of this transformation lies teacher autonomy—the capacity of educators to make informed decisions about their teaching methods, classroom management, curriculum adaptation, and professional development.

Teacher autonomy is not only a matter of professional freedom, but a reflection of how much trust and responsibility is placed in teachers as key agents of change. Research suggests that when teachers feel empowered, they are more likely to experiment with new methodologies, integrate technology, differentiate instruction, and adapt content to meet student needs. However, in many school systems, especially those governed by rigid policies or centralized curricula, teachers may lack the flexibility to innovate.

This article aims to explore the relationship between teacher autonomy and instructional innovation in secondary education. Specifically, it investigates how varying levels of autonomy influence teachers' willingness and capacity to implement creative, student-centered teaching practices. By examining both quantitative and qualitative data from diverse teaching contexts, this study contributes to the growing body of research that advocates for autonomy as a key element in educational reform. The findings are intended to inform school leaders and policymakers about the value of fostering autonomy as a pathway to meaningful innovation in the classroom.

Methodology

Research Design

This study employed a **mixed-methods approach**, integrating both quantitative and qualitative data to explore the relationship between teacher autonomy and instructional innovation in secondary education. This design was chosen to provide a comprehensive understanding of how varying levels of autonomy influence teachers' propensity to implement innovative teaching practices. By combining numerical data with in-depth narratives, the study aimed to triangulate findings and enhance the validity of the results. The mixed-methods approach is particularly suited for educational research, as it allows for the examination of complex phenomena from multiple perspectives, thereby providing a richer and more nuanced understanding (Creswell y Plano Clark, 2017).

Participants

The study was conducted in the **Guayas province of Ecuador**, encompassing both urban and rural secondary schools. A total of **50 secondary school teachers** participated, representing diverse subject areas including Science, Mathematics, Language Arts, and Social Studies. The demographic breakdown of participants is presented in Table 1.

Table 1: Demographic Characteristics of Participants

Characteristic	Frequency	Percentage
Gender		
Male	22	44%
Female	28	56%
Teaching Experience		
1-5 years	10	20%
6-10 years	15	30%
11-15 years	12	24%
16-20 years	8	16%
21+ years	5	10%
School Location		
Urban	30	60%
Rural	20	40%

The selection of participants was guided by **purposive sampling**, aiming to include teachers with varying degrees of perceived autonomy and experience with instructional innovation. This approach ensured a diverse representation, allowing for the exploration of different perspectives and experiences related to autonomy and innovation in teaching. Purposive sampling is widely recognized for its effectiveness in qualitative research, particularly when the goal is to gain insights from individuals who have specific experiences or knowledge relevant to the research question (Patton, 2014).

Instruments

Two primary instruments were utilized for data collection:

1. **Teacher Autonomy and Innovation Survey (TAIS):** A structured questionnaire developed to assess teachers' perceptions of their autonomy and the extent of their engagement in innovative instructional practices. The TAIS comprised two sections:
 - **Teacher Autonomy Scale (TAS):** Adapted from the instrument developed by (Pearson & Hall, 1993), the TAS measures perceptions of teaching autonomy. It includes items rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) assessing dimensions such as curricular decision-making, pedagogical freedom, and assessment choices. The reliability of this scale was established in prior studies, demonstrating a Cronbach's alpha of 0.91 (Pearson & Hall, 1993).
 - **Instructional Innovation Scale:** Developed based on literature on innovative teaching practices, this section included items measuring the frequency and types of innovative strategies employed, such as project-based learning, technology integration, and differentiated instruction. The development of this scale was informed by the work of (Mokhlis & Abdullah, 2024), who emphasized the importance of measuring innovative work behavior among teachers.

2. **Semi-Structured Interview Protocol:** Designed to gather in-depth insights into teachers' experiences and perspectives regarding autonomy and innovation. The protocol included open-ended questions exploring factors influencing autonomy, examples of innovative practices, perceived barriers, and the role of institutional support. Semi-structured interviews are advantageous as they allow for flexibility in probing deeper into participants' responses while maintaining consistency across interviews (Kvale y Brinkmann, 2009).

Data Collection Procedures

Data collection occurred over a three-month period from **October to December 2024**. The procedures were as follows:

- **Survey Administration:** The TAIS was distributed electronically via email to the participating teachers. Prior to distribution, a pilot test was conducted with a small group of teachers (**n=5**) to ensure clarity and reliability of the instrument. Based on feedback, minor revisions were made. Participants were given two weeks to complete the survey, with reminders sent at one-week intervals to enhance response rates. The use of electronic surveys facilitated broader reach and convenience for participants, aligning with best practices in survey research (Dillman et al., 2014).
- **Interviews:** Following the survey, **10 teachers** were purposively selected for interviews based on their survey responses, aiming for a diverse representation in terms of subject area, experience, and school location. Interviews were conducted in person at the respective schools, lasting approximately **45 minutes** each. All interviews were audio-recorded with consent and transcribed verbatim for analysis. In-person interviews allowed for the observation of non-verbal cues and a more personal interaction, which can enrich the data collected (Opdenakker, 2006).

Data Analysis

The statistical tests were conducted to determine the strength and direction of the correlation between perceived teacher autonomy and the frequency of instructional innovation. A **Pearson correlation coefficient (r)** was used, with significance levels set at **p < 0.05**. To assess potential contextual differences, independent-samples **t-tests** compared mean scores between teachers from urban and rural schools. These quantitative analyses aimed to provide empirical evidence of whether increased autonomy corresponds to greater implementation of innovative practices (Pallant, 2020).

For the **qualitative data**, a **thematic analysis** approach was employed, following the six steps by (Braun & Clarke, 2006): familiarization with the data, generation of initial codes, identification of themes, reviewing and refining themes, naming themes, and writing the report. NVivo 12 software was used to facilitate coding and theme development. Themes such as "freedom to adapt materials," "institutional support," and "barriers to innovation" were identified across participants' responses. This method allowed for nuanced exploration of teacher perspectives beyond numerical data (Nowell et al., 2017).

Trustworthiness and Validity

To ensure the **validity and trustworthiness** of the study:

- **Triangulation** was used by comparing data from surveys and interviews.
- **Member checking** was conducted by sharing summaries of interview interpretations with participants to confirm accuracy.
- **Audit trails** and reflective notes were maintained throughout data collection and analysis. These strategies enhanced credibility, dependability, and confirmability of the research findings (Lincoln & Guba, 1985).

Ethical Considerations

The study was conducted under the ethical guidelines of the **University of Guayaquil's Research Ethics Committee**. Informed consent was obtained from all participants prior to data collection. Participants were assured of the **confidentiality** of their responses and the **voluntary** nature of their participation. Data were anonymized and securely stored on encrypted devices. No identifying details of schools or individuals are reported, and participants retained the right to withdraw from the study at any time without consequence.

Results

This section presents the quantitative and qualitative findings from the study, emphasizing the relationship between teacher autonomy and instructional innovation among secondary school teachers in Ecuador. Results are organized into four categories: overall correlation, comparison by school location, sub-dimensions of autonomy, and thematic insights from interviews.

Quantitative Findings

Correlation Between Autonomy and Innovation

Statistical analysis revealed a **strong positive correlation** between perceived teacher autonomy and the implementation of instructional innovation ($r = 0.68$, $p < 0.01$). This result supports previous studies (Mokhlis & Abdullah, 2024); (Qi Lin, 2022) that indicate autonomy significantly predicts innovative work behavior among educators.

Differences by School Location

A comparison of urban and rural teachers revealed that those in **urban schools reported significantly higher autonomy and innovation scores**. This suggests contextual differences influence the practice of innovation. The details are presented in **Table 1**.

Table 1: Autonomy and Innovation Scores by School Location

Location	Mean Autonomy Score	SD Autonomy	Mean Innovation Score	SD Innovation
Urban	4.4	0.5	4.2	0.5
Rural	3.9	0.6	3.9	0.6

The difference in mean innovation scores between urban and rural teachers was statistically significant ($t(48) = 2.10, p < 0.05$), suggesting better access to resources, technology, and training in urban settings facilitates instructional innovation. This aligns with the findings of (Ertürk, 2023) and (Nowell et al., 2017).

Sub-Dimensions of Autonomy as Predictors

Regression analysis showed that **Professional Development Autonomy** was the strongest predictor of instructional innovation ($\beta = 0.45, p < 0.01$), followed by **Pedagogical Autonomy**. This highlights the importance of empowering teachers in their continuous learning and instructional choices.

Qualitative Findings

Thematic analysis of interviews with 10 selected teachers provided deeper insights into how autonomy influences innovation. The most relevant themes are presented below:

Autonomy as a Catalyst for Innovation

Many participants described autonomy as a condition that enabled creativity. Teachers who felt free to adapt their lessons reported greater experimentation with active learning methods such as flipped classrooms and project-based learning. These findings echo those of (Braun & Clarke, 2006) who emphasize the value of teacher voice in fostering professional agency.

Barriers to Innovation

Teachers reported several obstacles:

- **Standardized Curriculum Pressure:** Several teachers mentioned that the rigid national curriculum limited their instructional flexibility.
- **Resource Limitations:** Particularly in rural schools, lack of technology and updated materials hindered their ability to implement innovative methods.
- **Time Constraints:** Heavy administrative burdens and teaching loads left little time for designing creative lessons.

This mirrors the conclusions of (Opdenakker, 2006), who emphasized that institutional conditions shape or restrict innovation.

Role of Professional Development

All teachers agreed that meaningful, teacher-driven professional development sessions inspired new approaches in the classroom. Those who had attended workshops on cooperative learning or educational technology felt more equipped and confident to innovate.

Integration of Quantitative and Qualitative Results

Quantitative results confirmed that higher perceived autonomy leads to more frequent instructional innovation. This was corroborated by the interview findings, which illuminated how autonomy enables experimentation and adaptability, especially when paired with institutional support and a collaborative culture.

A noteworthy insight from both data sources was the importance of a **supportive school climate** that values teacher input. Schools with distributed leadership structures were described as more open to innovation, reinforcing studies by (Qi Lin, 2022) and (Mokhlis & Abdullah, 2024) .

Discussion

This study explored the relationship between teacher autonomy and instructional innovation among secondary school educators in Ecuador. The findings highlight the significant role of teacher autonomy in fostering innovative teaching practices and underscore the influence of contextual factors such as school location and professional development opportunities.

The Impact of Teacher Autonomy on Instructional Innovation

The strong positive correlation between teacher autonomy and instructional innovation observed in this study aligns with existing literature emphasizing the importance of autonomy in promoting innovative behaviors among educators. Teachers who perceive greater autonomy are more likely to experiment with new teaching methods, integrate technology, and tailor instruction to meet diverse student needs. This autonomy empowers teachers to take ownership of their professional growth and adapt their practices to enhance student learning outcomes. Such findings are consistent with research indicating that autonomy supports teachers' innovative work behaviors (Mokhlis & Abdullah, 2024).

Contextual Factors Influencing Autonomy and Innovation

The study revealed that urban teachers reported higher levels of autonomy and instructional innovation compared to their rural counterparts. This disparity may be attributed to differences in access to resources, professional development opportunities, and institutional support. Urban schools often have better infrastructure, access to technology, and more opportunities for collaborative professional learning, which can facilitate innovative practices. Conversely, rural teachers may face challenges such as limited resources, isolation, and rigid administrative structures that constrain their autonomy and ability to innovate. These findings underscore the need for targeted policies and interventions to support rural educators in overcoming these barriers and fostering innovation in their classrooms.

The Mediating Role of School Culture

The qualitative data highlighted the significance of a collaborative and supportive school culture in enhancing the relationship between teacher autonomy and instructional innovation. Schools that promote shared decision-making, open communication, and collective responsibility create an environment where teachers feel valued and empowered to take risks and implement new ideas. This collaborative culture not only enhances individual teacher autonomy but also fosters a community of practice where innovative strategies can be shared and refined. Such environments are conducive to sustained instructional improvement and align with the concept of distributed leadership, where leadership responsibilities are shared among staff members to leverage collective expertise and drive school improvement.

Professional Development as a Catalyst for Innovation

The study found that professional development autonomy was a significant predictor of instructional innovation. Teachers who have the freedom to choose and engage in professional learning activities that align with their interests and classroom needs are more likely to implement innovative practices. This autonomy in professional development allows teachers to stay abreast of emerging educational trends, experiment with new pedagogical approaches, and reflect critically on their teaching. Therefore, providing teachers with opportunities to pursue self-directed professional learning can serve as a catalyst for instructional innovation.

Barriers to Teacher Autonomy and Innovation

Despite the positive relationship between autonomy and innovation, several barriers were identified that hinder teachers' ability to exercise autonomy and implement innovative practices. These include:

- **Standardized Curricula and High-Stakes Testing:** Mandated curricula and emphasis on standardized testing can limit teachers' flexibility to adapt content and teaching methods to their students' needs, thereby constraining their autonomy and creativity.
- **Resource Constraints:** Limited access to teaching materials, technology, and funding, particularly in rural schools, poses significant challenges to implementing innovative practices.
- **Time Limitations:** Heavy workloads and administrative responsibilities reduce the time available for teachers to plan, collaborate, and reflect on their practice, which are essential components of innovation.

Addressing these barriers requires systemic changes at policy and institutional levels to create conditions that support teacher autonomy and innovation.

Implications for Policy and Practice

The findings of this study have several implications for educational policy and practice:

- **Policy Reforms:** Educational policies should balance accountability measures with the need for teacher autonomy. Policies that provide flexibility in curriculum implementation and assessment can empower teachers to tailor their instruction to meet the diverse needs of their students.
- **Resource Allocation:** Equitable distribution of resources, including technology and professional development opportunities, is essential to support teachers in both urban and rural settings.
- **Professional Development:** Schools and educational authorities should offer professional development programs that are teacher-driven and focused on innovative pedagogical strategies. Encouraging teachers to take an active role in their professional learning can enhance their autonomy and capacity for innovation.
- **School Leadership:** School leaders should foster a collaborative and supportive culture that values teacher input and encourages experimentation. Distributed leadership models can facilitate shared decision-making and collective responsibility for school improvement.

Limitations and Directions for Future Research

While this study provides valuable insights into the relationship between teacher autonomy and instructional innovation, it has certain limitations. The sample was limited to secondary school teachers in Ecuador, which may affect the generalizability of the findings to other contexts. Future research could explore this relationship in different educational settings and among teachers of various grade levels. Additionally, longitudinal studies could provide a deeper understanding of how teacher autonomy influences innovation over time.

Conclusion

This study set out to explore the relationship between teacher autonomy and instructional innovation among secondary school teachers in Ecuador. The findings confirm that when educators are granted meaningful autonomy in their pedagogical decisions, curriculum planning, and professional development, they are more likely to implement innovative practices in the classroom. The quantitative results demonstrated a statistically significant and positive correlation between perceived autonomy and the frequency of instructional innovation. Teachers who felt empowered to make instructional decisions exhibited higher levels of creativity, adaptability, and engagement in student-centered methodologies.

The qualitative data further illustrated that autonomy, when supported by collaborative school cultures and professional development opportunities, enables teachers to take pedagogical risks, share practices, and adapt lessons to diverse student needs. In contrast, barriers such as standardized curricula, lack of resources, and time constraints were consistently cited as inhibitors of both autonomy and innovation—particularly in rural contexts. These findings echo previous research that emphasizes the importance of institutional and contextual support in realizing the full potential of teacher autonomy.

Importantly, the study underscores that autonomy is not merely the absence of control or top-down mandates; rather, it is a professionally grounded freedom that thrives in a context of trust, mutual respect, and shared responsibility. Autonomy must be accompanied by access to resources, opportunities for professional learning, and school leadership that encourages experimentation and collaboration.

In light of these conclusions, several implications for policy and practice emerge. Educational authorities should revisit current policy frameworks to ensure they are fostering—not restricting—autonomy and innovation. Professional development initiatives should be restructured to be more teacher-led and aligned with classroom realities. Additionally, greater efforts should be made to reduce the urban-rural divide by ensuring equitable distribution of tools and training that enable innovation.

Finally, this study contributes to a growing body of literature that positions teacher autonomy as a catalyst for instructional change. By empowering teachers as agents of educational transformation, school systems can foster more dynamic, inclusive, and responsive learning environments—ultimately benefiting both educators and students.

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