

Determinants of The Quality of Ongoing Professional Training in an Online Format from The User's Perception: An Empirical Study in Chile

Jessica Uribe^{1*}

¹ Universidad de Salamanca, Salamanca, ESPAÑA

*Corresponding Author: jessica.uribe@usal.es
DOI: <https://doi.org/10.30880/jtet.2025.17.03.015>

Article Info

Received: 11th February 2025
Accepted: 5th September 2025
Available online: 14th October 2025

Keywords

Training, continuous education, evaluation models, competency, CIPP model

Abstract

Continuous training is essential for organizational sustainability, as competency development directly influences productivity and adaptability. This study evaluates the satisfaction perceptions of 999 participants in synchronous online courses, considering variables such as age, work experience, and prior knowledge. Using Stufflebeam's CIPP model (Context, Input, Process, Product), the most valued aspects of the training program were systematically analyzed. Results indicate high overall satisfaction, particularly regarding technical support, instructor quality, and content relevance. Significant correlations were found between prior knowledge and satisfaction, but not with age or gender. Key areas for improvement include clarity of explanations and pedagogical interaction. It is recommended to adopt differentiated strategies based on participant profiles and to enhance real-time feedback mechanisms. This approach enables training programs to align more effectively with learners' actual needs, promoting workplace knowledge transfer.

1. Introduction

In today's business environment, continuous learning and employee training are essential for maintaining competitiveness and organizational efficiency (González and Tarragó, 2008). Companies and institutions invest in training programs to ensure that their employees acquire and maintain knowledge and skills relevant to their roles (Au, Altman and Rousell, 2008). According to Kirkpatrick and Kirkpatrick (Kirkpatrick and Kirkpatrick, 2006), satisfaction evaluation, or reaction, provides immediate insights into how participants perceive the course. High satisfaction levels typically correlate with a higher likelihood of learning transfer to the workplace, making this metric indispensable for continuously improving training programs (Baldwin and Ford, 1988).

The analysis of training program effectiveness considers various demographic and work experience variables, such as age, gender, work experience, and prior knowledge about the training activity. These factors can influence how employees perceive and benefit from training programs. Addressing these aspects enables organizations to better align their programs with participants' expectations and needs, thereby optimizing resource use and improving the program's cost-effectiveness (Allen et al., 2010). Moreover, recent studies highlight that such variables not only affect perception but also influence the likelihood that training will translate into actual job performance improvements (Martínez-Corredor & Jaramillo-Medina, 2024).

To guide educational program evaluation, the CIPP Model (Context, Input, Process, Product), developed by Stufflebeam (1983), offers a comprehensive framework for systematically assessing different aspects of a program. Context evaluation seeks to understand the environment and needs that justify the program's existence; input evaluation focuses on the resources and strategies planned to meet objectives; process

evaluation analyzes real-time implementation, identifying strengths and areas for improvement; and product evaluation assesses the outcomes and their impact (Stufflebeam, 2003; González, Montserrat, & Teddlie, 2007).

This model not only allows for a comprehensive diagnostic of a program but is also highly adaptable to various organizational and delivery contexts, including virtual formats. Recent studies have shown that the CIPP model is effective in capturing perceptions from both students and instructors in online learning environments, identifying key areas for improvement across demographic variables such as age, gender, and institutional affiliation (Gerayllo et al., 2025). Compared to models such as Kirkpatrick's—which focuses on specific results like behavioral change or economic return—the CIPP model provides a more holistic, decision-oriented evaluation approach (Stufflebeam & Coryn, 2014).

This study takes place within a Latin American context, where virtual education—accelerated by the COVID-19 pandemic—revealed both opportunities and structural limitations. Recent research underscores the need for systematic evaluation of these experiences, particularly in training programs aimed at working adults, to understand the relationship between satisfaction, learning transfer, and job performance improvement (Gerayllo et al., 2025; Martínez-Corredor & Jaramillo-Medina, 2024). Nevertheless, few studies have addressed the systematic evaluation of synchronous online technical training from the user's perspective using the CIPP model, especially in the Chilean context.

Therefore, this study aims to evaluate and analyze workers' perceptions of synchronous virtual training programs through scientifically constructed instruments, considering variables such as age, work experience, and prior knowledge. The objective is to provide practical, data-driven recommendations to support the continuous improvement of training programs. From the perspective of the education and professional training field, this study offers empirical evidence on the evaluation of synchronous online training programs in real-world work settings. Its contribution lies in the application of the CIPP model, which has been widely validated in virtual and educational contexts (Gerayllo et al., 2025), to understand the training experience from the user's perspective, incorporating variables that are often underestimated, such as age and prior knowledge. Furthermore, it provides replicable methodological guidelines that can inform future research and institutional evaluations, thus supporting data-driven decision-making for the continuous improvement of training programs (Martínez-Corredor & Jaramillo-Medina, 2024).

1.1 Theoretical Framework

1.1.1 Evaluation of Training Programs

Perea-Arias (2017) emphasizes that evaluation allows for verifying whether the objectives of a program are being achieved and if the intended competencies are being effectively developed by the participants. However, Martínez et al. (2024) found that most programs tend to primarily evaluate the knowledge acquired, while the practical competencies resulting from the training are less frequently assessed. According to Madero Cañete and Arenas Bernal (2018), a well-structured evaluation not only ensures the program's effectiveness but also facilitates obtaining consistent and valuable results. This consistency is vital for tracking learning progress, allowing for continuous adjustments and improvements to the training process (Ruiz-Bueno and García-Orriols, 2019). Tejada Fernández and Fernández Lafuente (2007) argue that the evaluation of training impact should be considered a key strategy for organizational improvement. Adapting programs to specific needs ensures that the training is relevant and effective at both the individual and organizational levels. Issel et al. (2017) and Mertens and Wilson (2018) agree that structured and rigorous data collection allows for well-founded judgments and provides empirical evidence about the program's quality and outcomes. This systematic approach is essential to ensure that evaluations are not only accurate but also useful for making informed decisions. Baldwin and Ford (1988) highlight the importance of assessing this transfer to ensure the effectiveness of training. Considering that Rodríguez-Santander and Torres-Gordillo (2016) emphasize the relevance of e-learning in the evaluation of online training courses, they stress its crucial role in these training modalities. Key aspects include content accessibility, efficient course and student management, and improvements in implementation channels, which have propelled the advancement of e-learning (Joo, Lim, y Kim, 2012). Given that training primarily focuses on adult education, subjective perceptions play a fundamental role. Fernández-Ayuso et al. (2017) argue that self-efficacy is crucial for competency development, which is significant since most individuals voluntarily participate in training. Bandura (1977) contributes that self-perceptions or beliefs about one's capabilities become the means to perform tasks within a context that the individual can control or modify.

1.1.2 Models for Evaluating the Quality of Educational Programs: The CIPP Model by Stufflebeam

The implementation of evaluation processes and the establishment of quality standards are essential to ensure the effectiveness and success of online education. This emphasis on quality reflects the importance of continuously evaluating online training courses, a topic widely discussed by various authors (González & Tarragó Montalvo, 2008; Herbert, Velan, Pryor, & Kumar, 2017; Pineda-Herrero, Quesada Pallares, Espona-Barcons, et al., 2015). However, there is no consensus on which aspects are most relevant when assessing such training. Authors such as Kirkpatrick (2006) and Tello (2010) highlight the importance of internal factors—such as course design and teaching methodology—as well as external factors like the technological environment and institutional support. Marqués (1999) emphasizes interactivity and accessibility as critical components to ensure an effective learning experience. García-Valcárcel and Tejedor (2011) argue that active student participation not only improves educational outcomes but also strengthens the learning process, contributing to an overall sense of quality in online education. According to Marciniak and Gairín-Sallán (2017), the existence of multiple models for evaluating the quality of e-learning and its specific processes reflects the growing relevance and evolution of virtual education in recent years.

The CIPP Model (Context, Input, Process, Product), developed by Stufflebeam (1983), has been recognized as a comprehensive and robust approach for evaluating educational and social programs. González et al. (2007) emphasize that the model integrates a phase- and area-based perspective with a systemic vision, facilitating comprehensive evaluation throughout the program cycle. In the field of educational evaluation, the model promotes the systematic collection and analysis of information to improve curriculum design, assess effectiveness and efficiency, and understand participant attitudes within a specific institution (Marciniak & Gairín-Sallán, 2017). It focuses both on ends—goals and outcomes—and means—procedures for designing and implementing training programs (Arnal, Del Rincón, & Latorre, 1992).

Unlike Kirkpatrick's model (2006), which is primarily focused on training outcomes—such as reaction, learning, behavior, and results—the CIPP model enables a continuous and multidimensional evaluation of the entire program. While Kirkpatrick is effective for assessing results at the final stage, CIPP is oriented toward informed decision-making during the design, implementation, and adjustment of training activities, making it particularly useful for dynamic contexts such as synchronous online education. Recent research has validated the use of the CIPP model in virtual training environments, demonstrating its ability to capture differentiated perceptions among students and faculty and guide targeted improvements based on demographic variables such as age, gender, or academic affiliation (Gerayllo et al., 2025).

Table 1 Comparison between the CIPP and Kirkpatrick evaluation models

Criterion	CIPP Model (Stufflebeam)	Kirkpatrick Model
General approach	Comprehensive evaluation for decision-making	Outcome-based evaluation by levels
Structure	Four dimensions: Context, Input, Process, Product	Four levels: Reaction, Learning, Behavior, Results
Main purpose	Continuous improvement across the program cycle	Assessment of final training outcomes
Applicability	Broad: educational, social, and work-based programs	Predominantly corporate training settings
Evaluation orientation	Formative and summative	Mainly summative

Note: Developed by the author based on Stufflebeam & Coryn (2014), Kirkpatrick & Kirkpatrick (2006), and Gerayllo et al. (2025).

2. Methodology

2.1 Research Design: Survey Study

In line with the study's objectives and grounded in an empirical-analytical framework, a quantitative ex post facto survey design was used. This design facilitates the collection of perceptions from a large number of participants, allowing for the identification of strengths and areas for improvement in online synchronous training. This approach aligns with the purpose of evaluating participant satisfaction from a systemic and decision-oriented perspective, consistent with the CIPP model (Stufflebeam & Coryn, 2014).

2.2 Population and Sample

The study involved 999 participants who voluntarily responded to a satisfaction survey after completing one of 113 synchronous training courses delivered between September 2023 and March 2024. These courses were part of the regular offerings of a Technical Training Organization (OTEC) serving public and private sector clients in Chile. Participants were not preselected but became part of the sample by meeting two criteria: (1) having completed a course with at least 75% attendance, and (2) having voluntarily responded to the survey at the end of the course. These learners were expected to enhance specific professional competencies, particularly in the interpretation and implementation of national and international standards, internal and lead auditing, and technical compliance.

The demographic and professional characteristics of the participants were as follows:

- Gender Distribution: Approximately 51% of the participants were men and 49% were women.
- Age Distribution: 41% were between 25 and 35 years old, 29% between 35 and 45 years old, 13% between 45 and 55 years old, and 8% were over 55 years old.
- Work Experience: 34% had between 1 and 5 years of experience, 50% had between 6 and 15 years, and 30% had more than 16 years of experience.
- Prior knowledge: 21% reported no knowledge of the training topic, 50% limited, 43% reasonable, and 6% considerable knowledge.

2.3 Data Collection Instrument: Satisfaction Survey

The survey was designed based on the CIPP evaluation model to assess participant satisfaction with the training experience across four dimensions: context, input, process, and product (Stufflebeam, 2003). It used a five-point Likert scale (Likert, 1932), where 1 = "Very Dissatisfied" and 5 = "Very Satisfied," allowing participants to express their level of satisfaction in a clear and quantifiable manner. The questionnaire consisted of 24 closed-ended items aligned with the CIPP dimensions and two open-ended questions to collect complementary qualitative feedback.

The construction of the instrument followed the guidelines proposed by Padilla and Juárez (2006), who emphasize the importance of integrating variables such as the training context, available resources, the teaching-learning process, and the outcomes achieved. This approach is also consistent with Iglesias et al. (2018), who adapted the CIPP model for evaluating short-term training initiatives, and with the standards of the Chilean National Training and Employment Service (SENCE), which emphasizes the alignment of training with labor-market relevance and continuous learning needs.

The survey instrument was reviewed by four experts in training evaluation and instructional design to ensure content validity. Its internal consistency was tested using Cronbach's alpha, resulting in a high reliability coefficient of $\alpha = 0.91$, which confirms the coherence of the items and the robustness of the instrument for assessing satisfaction (Cronbach, Schönemann, & McKie, 1965).

The variables assessed were classified into four CIPP dimensions:

- Context Variables: Describe the external conditions surrounding the study, including age, gender, work experience, business sector, interest in training, initial expectations, and type of course.
- Input Variables: Reflect the initial characteristics of the participants before the training process, such as initial knowledge, relationship with the commercial executive, welcome information, participant's technological means, and prior information about the instructor.
- Process Variables: Involve the actions and activities during the implementation of the training program, such as technical support, educational platform, relationship with other participants, effective use of time, instructor (attitude, methodology, subject mastery, response to inquiries), content, and activities.
- Product (or Outcome) Variables: Represent the achievements and effects of the training process, including new knowledge, final expectations, experience, overall satisfaction, the scope and depth of content, and brand reputation.

2.4 Survey Administration Process

The survey was administered online via the course platform immediately after course completion. Participation was voluntary and anonymous, and respondents were informed that their feedback would be used to improve future training sessions. The inclusion of open-ended items allowed for more nuanced responses, complementing the quantitative data.

Limitations: As a satisfaction-focused survey, the study does not include direct post-training performance assessments or long-term follow-up, which limits its scope to perceived outcomes.

3. Results

3.1 General Perception of Satisfaction by CIPP Dimension

Based on a Likert scale ranging from 1 (very dissatisfied) to 5 (very satisfied), participants rated their overall satisfaction with the training programs very positively, with most evaluated aspects scoring above 4.0. These findings are consistent with research indicating that high levels of participant satisfaction correlate with engagement and potential learning transfer (Gopal et al., 2021; Baldwin & Ford, 1988).

Table 2 Average satisfaction scores per evaluated aspect

Evaluated Aspect	Average Rating (1-5)	Comment
Course Duration	4.2	Adequate balance between content depth and schedule
Topic Relevance	4.5	Topics aligned with work and professional goals
Information Clarity	4.0	Clear and relevant information
Availability of Technical Resources	4.3	High satisfaction with platforms and support
Instructor Competence	4.4	High level of knowledge and responsiveness
Effective Use of Time	4.1	Participants felt time was used productively
Instructor Attitude	4.2	Positive attitude and openness to interaction
Overall Satisfaction	4.3	High general satisfaction with the training

This graph illustrates average satisfaction scores for each key component of the training programs.

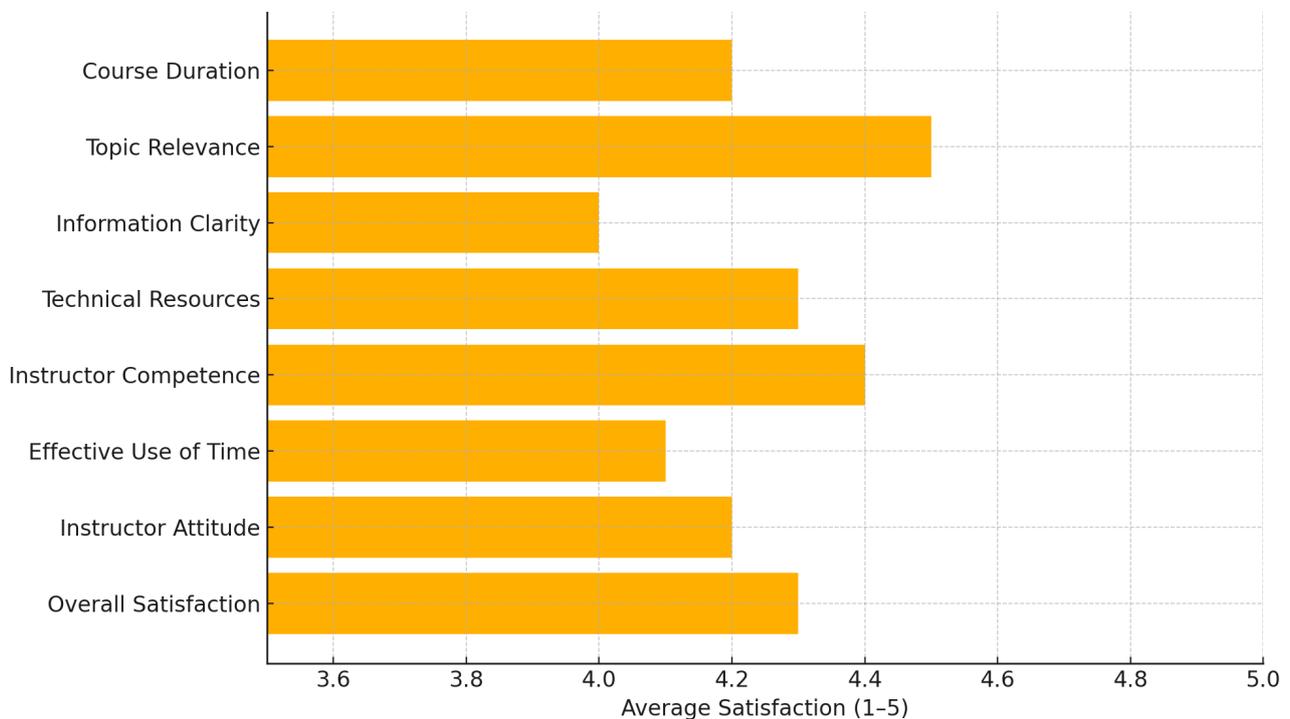


Fig. 1 Mean satisfaction scores by CIPP dimension

3.2 Analysis by CIPP Model Dimensions

Using the four components of the CIPP evaluation model—Context, Input, Process, and Product—the data were grouped to assess the training program's quality more comprehensively (Stufflebeam, 1983; Marciniak & Gairín-Sallán, 2017). This framework supports multidimensional assessment and aligns with recommendations for continuous training in complex and digital environments (Guzmán et al., 2023).

Table 3 Average satisfaction by CIPP dimension

CIPP Dimension	Mean (1-5)	Standard Deviation	Skewness	N
Context	4.17	0.94	-1.82	556
Process	4.46	0.77	-2.66	999
Product	4.44	0.81	-2.34	999

The highest satisfaction score corresponds to the Process dimension, which includes content delivery, instructor performance, and platform usability. These results reflect the program's ability to meet participant needs effectively (Herbert et al., 2017).

3.3 Relationship Between Demographics and Satisfaction (Kruskal-Wallis)

As the Shapiro-Wilk test indicated non-normality ($p < .001$), non-parametric Kruskal-Wallis tests were applied. Significant differences were found in the Context dimension based on prior knowledge about the training subject ($H = 6.164$, $p = 0.046$; $\epsilon^2 = 0.012$). Participants with moderate or considerable prior knowledge reported higher satisfaction than those with no knowledge, as confirmed by Dunn's post hoc test ($p_{\text{bonf}} = 0.071$).

In the Process dimension, satisfaction also varied significantly according to prior knowledge level ($H = 16.658$, $p = 0.005$), particularly between participants with no knowledge and those with moderate or considerable experience. These findings support the notion that familiarity with training content enhances engagement and satisfaction (Alvarez et al., 2004; Gopal et al., 2021).

No significant differences were found in the Product dimension by age or prior knowledge, indicating consistent satisfaction with training outcomes across participant profiles.

3.4 Integration of Qualitative Data

To complement the quantitative analysis, open-ended responses from the entry survey were analyzed thematically. Responses were categorized into three main themes: expectations, motivations, and prior experiences. Most participants emphasized the clarity of communication, the instructor's expertise, and the practical applicability of the content—echoing the highest-rated items in the quantitative data.

This triangulation supports the validity of the findings and aligns with research on participant-centered evaluation models (Pineda-Herrero et al., 2015; Morales-Chávez et al., 2022), where satisfaction is considered both a reflection of service quality and an input for improvement.

4. Discussion and Conclusions

4.1 Discussion

The results of this study reveal a high level of participant satisfaction with synchronous continuing education courses delivered in an online format. This finding is consistent with prior research that links satisfaction to perceptions of quality in training programs, particularly in technology-mediated environments (Gopal, Singh, & Aggarwal, 2021; Morales-Chávez, Rodríguez-Muñoz, & Rengifo-Herrera, 2022). An overall satisfaction score of 4.3 out of 5 indicates that key elements—course duration, content relevance, instructor performance, and technical resources—were positively evaluated, contributing to a favorable learning experience.

Within the framework of the CIPP model, the Process and Product dimensions received the highest satisfaction levels, underscoring the relevance of instructional quality and tangible learning outcomes (Stufflebeam, 1983; Marciniak & Gairín-Sallán, 2017). These findings align with studies that emphasize the critical role of pedagogical interaction, instructor attitude, and content clarity in learner satisfaction (Herbert et al., 2017; Guzmán, Zagalaz, & Cachón, 2023).

Regarding demographic variables, previous knowledge of the course topic was significantly associated with higher satisfaction in the Context and Process dimensions. This suggests that familiarity with the subject matter facilitates engagement and the assimilation of learning. These results echo the conclusions of Baldwin and Ford (1988), who argue that prior knowledge supports the transfer of learning. However, no significant differences were found in satisfaction levels based on gender or age, indicating that the instructional design was perceived as equitable among different participant subgroups.

Despite the strength of the findings, several limitations must be acknowledged. First, the sample was drawn from a single Technical Training Organization (OTEC), limiting the generalizability of the results to other institutions or sectors. Additionally, although immediate satisfaction was measured, this study did not explore the actual transfer of learning to the workplace or the medium- and long-term impact on job performance—factors that are essential for future research (Alvarez, Salas, & Garofano, 2004; Kirkpatrick & Kirkpatrick, 2006).

Finally, while the CIPP model enabled a comprehensive evaluation, its descriptive nature could be complemented in future studies by models such as Phillips or Kirkpatrick, which emphasize return on investment (ROI) or learning effectiveness (Pineda-Herrero, Quesada-Pallarès, & Espona-Barcons, 2015). A promising future line of inquiry would involve integrating quantitative satisfaction metrics with qualitative evidence of learning application in real work settings.

4.2 Influence of Instructor Competence and Content Depth

One of the most significant findings was the high satisfaction rating for instructor competence (4.6) and content depth (4.4). These results suggest that the qualifications and teaching methods of the instructor are crucial in shaping participants' perceptions of the training program. The positive feedback on the instructor's experience indicates that participants value knowledgeable and engaging educators who can effectively convey complex information, aligning with previous research by Arregui-Valdivieso et al. (2024). Moreover, the high rating for content depth suggests that participants found the material relevant and applicable to their professional roles, which is essential in a rapidly changing work environment. The alignment of training content with job requirements enhances the perceived value of the training, leading to higher satisfaction and increased motivation to apply new knowledge, as emphasized by Iglesias et al. (2018).

4.3 Role of Prior Knowledge and Experience

The analysis revealed a significant relationship between participants' prior knowledge and their satisfaction levels, with those having considerable prior knowledge reporting higher satisfaction. This highlights the importance of tailoring training programs to different levels of expertise. By assessing prior knowledge beforehand, organizations can customize content and delivery to better meet all learners' needs, enhancing the program's effectiveness. Additionally, the analysis showed that work experience positively influences training perceptions, as participants with more experience rated the program more favorably. This suggests experienced professionals better understand the practical applications of the content, leading to more positive evaluations. Organizations should leverage insights from experienced participants to improve course design and delivery, ensuring training programs remain relevant and impactful, as highlighted by Vera et al. (2021).

4.4 Implications for Future Training Programs

The findings of this study have several implications for the design and implementation of future training programs. First, organizations should prioritize the selection of qualified instructors who possess both subject matter expertise and effective teaching skills. Investing in instructor development can lead to improved participant satisfaction and learning outcomes, as suggested by the recommendations of Marques (1999). Second, the training content should be regularly reviewed and updated to ensure its relevance to participants' job roles and industry standards. Incorporating feedback from participants regarding content depth and applicability can help organizations refine their training offerings, aligning with the insights from Padilla and Juárez (2006). Lastly, organizations should implement pre-training assessments to gauge participants' prior knowledge and experience. This information can be used to customize training sessions, ensuring that all participants receive the appropriate level of challenge and support. By addressing the diverse needs of participants, organizations can enhance the overall effectiveness of their training programs and foster a culture of continuous learning.

4.5 Limitations and Future Research Directions

While this study provides valuable insights, its limitations must be acknowledged. The sample was drawn from a specific training organization, which may limit the generalizability of the findings. Future research should explore training program effectiveness across different industries and demographic groups to gain a more comprehensive understanding of participant satisfaction. Additionally, longitudinal studies could assess the long-term impact of training on job performance and career advancement. Understanding the relationship between training satisfaction and actual learning transfer will further illuminate the effectiveness of training programs. In conclusion, the study highlights the critical factors influencing participant satisfaction in training programs. By focusing on instructor competence, content relevance, and the diverse needs of participants, organizations can enhance the quality and effectiveness of their training, leading to improved employee performance and organizational success.

4.6 Conclusions

This study provided a comprehensive understanding of participant satisfaction in synchronous online training programs, using the CIPP evaluation model as a theoretical and methodological framework. The findings

confirmed high levels of satisfaction in relation to technical support, platform usability, and key instructional aspects such as the instructor's punctuality, clarity, and positive attitude—factors that have been identified as critical to learning experiences in previous literature (Arregui-Valdivieso et al., 2024; Iglesias et al., 2018).

The results also reinforce the value of continuous feedback and adaptive strategies in training design, aligning with the conclusions of Vera et al. (2021), who argue that comprehensive quality management systems are essential in lifelong education. These outcomes support the relevance of incorporating user feedback, enhancing communication channels, and ensuring clarity of both content and processes, all of which have a direct impact on learning satisfaction (Baldwin & Ford, 1988; Guzmán, Zagalaz, & Cachón, 2023).

From a practical perspective, the study underscores the need to prioritize the development of instructors' communication competencies and pedagogical adaptability, especially in virtual learning environments. Likewise, ensuring the usability, stability, and accessibility of digital platforms—coupled with a responsive and punctual technical support team—emerges as a fundamental requirement for effective program delivery (Herbert et al., 2017; Morales-Chávez, Rodríguez-Muñoz, & Rengifo-Herrera, 2022).

Nevertheless, this research presents some limitations. The study was conducted within a single training institution, which may restrict the generalizability of the findings. Additionally, reliance on self-reported data and the absence of longitudinal follow-up limits the possibility of assessing long-term effects of satisfaction on knowledge retention or job performance. Future studies should address these gaps by incorporating qualitative methods such as interviews and focus groups, applying mixed-methods designs, and testing new training technologies in diverse organizational settings (Alvarez, Salas, & Garofano, 2004; Pineda-Herrero et al., 2015).

In summary, the use of the CIPP model allowed for a structured, multidimensional evaluation of participants' perceptions, offering useful insights for improving online training practices. These findings contribute to the body of knowledge on continuous professional development, particularly in Latin American contexts, and encourage the integration of innovative, evidence-based strategies for enhancing the quality and impact of training programs.

Acknowledgement

This research did not receive funding from any public, commercial, or non-profit organizations. The author expresses their gratitude to all individuals who contributed to the completion of this study.

Conflict of Interest

Authors declare that there is no conflict of interest regarding the publication of the paper.

Author Contribution

The author confirms sole responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

References

- Allen, D. G., Shore, L. M., & Griffeth, R. W. (2010). The role of perceived organizational support and supportive human resource practices in the turnover process. *Journal of Management*, 39(4), 99–118. <https://doi.org/10.1177/014920630302900107>
- Álvarez, K., Salas, E., & Garofano, C. M. (2004). An Integrated Model of Training Evaluation and Effectiveness. *Human Resource Development Review*, 3(4), 385–416. <https://doi.org/10.1177/1534484304270820>
- Arnal, J., Del Rincón, D., & Latorre, A. (1992). *Investigación educativa. Metodologías de investigación educativa*. Labor.
- Arregui-Valdivieso, V., Rivadeneira-Pacheco, J., Avilés-Almeida, P., & Medrano-Freire, E. (2024). Desarrollo Profesional y Formación Continua en la Educación: Estrategias efectivas para potenciar el rendimiento del Personal Académico. *MQRInvestigar*, 8, 5343–5363. <https://doi.org/10.56048/MQR20225.8.1.2024.5343-5363>
- Au, A., Altman, Y., & Roussel, J. (2008). Employee training needs and perceived value of training in the Pearl River Delta of China. *Journal of European Industrial Training*, 32, 19–31. <https://doi.org/10.1108/03090590810846548>
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41(1), 63–105. <https://doi.org/10.1111/j.1744-6570.1988.tb00632.x>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.

- Brown, J. D. (1995). Language program evaluation: Decisions, problems and solutions. *Annual Review of Applied Linguistics*, 15, 227–248.
- Cano Ibarra, S. T., Garza Carranza, M. T., González Farías, J. P., & Galván Morales, P. (2022). Percepción estudiantil universitaria de los cursos en línea implementados por contingencia covid-19. Un modelo de ecuaciones estructurales. *RIDE. Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 12(24), e029. <https://doi.org/10.23913/ride.v12i24.1169>
- Cronbach, L. J., Schönemann, P., & McKie, D. (1965). Alpha Coefficients for Stratified-Parallel Tests. *Educational and Psychological Measurement*, 25(2), 291–312. <https://doi.org/10.1177/001316446502500201>
- Fernández-Ayuso, D., Del Campo Cazallas, C., Fernandez Ayuso, R. M., Olmo, J., Rodríguez, J., & Matias, B. (2017). Relación entre la autopercepción y autoeficacia para el desarrollo de competencias en soporte vital en entornos de simulación clínica de alta fidelidad. *Educación Médica*, 19. <https://doi.org/10.1016/j.edumed.2017.03.030>
- García-Valcárcel, A., & Tejedor, F. J. (2011). Variables TIC vinculadas a la generación de nuevos escenarios de aprendizaje en la enseñanza universitaria. Aportes de las curvas ROC para el análisis de diferencias. *Educación XXI*, 1(14), 43–78.
- Gerayllo, S., Vakili, M., Jouybari, L., Moghadam, Z., Jafari, A., & Heidari, A. (2025). Using the CIPP model to elicit perceptions of health professions faculty and students about virtual learning. *BMC Medical Education*, 25(166). <https://doi.org/10.1186/s12909-025-06747-1>
- González, M. T., Montserrat, C., & Teddlie, C. (2007). Evaluación del Plan de Lucha contra la Exclusión Social en Navarra 1998-2005. *Gobierno de Navarra*.
- González, M. del C., & Tarragó Montalvo, C. (2008). Capacitación para el cambio. *ACIMED*, 17(4). Recuperado el 24 de mayo de 2024, de http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1024-94352008000400002&lng=es&tlng=es
- Gopal, R., Singh, V., & Aggarwal, A. (2021). Impact of online classes on the satisfaction and performance of students during the pandemic period of COVID-19. *Education and Information Technologies*, 26, 6923–6947. <https://doi.org/10.1007/s10639-021-10523-1>
- Guzmán, C., Zagalaz, M. L., & Cachón, J. (2023). Satisfacción en modalidad virtual y desempeño profesional en formación continua: un análisis desde la experiencia de adultos trabajadores. *Formación Universitaria*, 16(4), 11–22. <https://doi.org/10.4067/S0718-50062023000400011>
- Herbert, C., Velan, G. M., Pryor, W. M., & Kumar, R. K. (2017). A model for the use of blended learning in large group teaching sessions. *BMC Medical Education*, 17, 197.
- Herbert, C., Velan, G. M., Pryor, W. M., & Kumar, R. K. (2017). Student use and satisfaction with learning management systems in university education. *Australasian Journal of Educational Technology*, 33(1), 1–14. <https://doi.org/10.14742/ajet.2993>
- Iglesias Martínez, M. J., Lozano Cabezas, I., & Roldán Soler, I. (2018). La calidad e innovación educativa en la formación continua docente: un estudio cualitativo en dos centros educativos. *Revista Iberoamericana De Educación*, 77(1), 13–34. <https://doi.org/10.35362/rie7713090>
- Issel, L. M., Wells, R., & Williams, M. (2017). *Health program planning and evaluation*. Jones y Bartlett Learning.
- Joo, Y. J., Lim, K. Y., & Kim, S. M. (2012). A Model for Predicting Learning Flow and Achievement in Corporate e-Learning. *Journal of Educational Technology y Society*, 15(1).
- Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). *Evaluating Training Programs: The Four Levels* (3rd ed.). Berrett-Koehler Publishers.
- Likert, R. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology*, 140, 1–55. https://legacy.voteview.com/pdf/Likert_1932.pdf
- Madero Cañete, L., & Arenas Bernal, L. (2018). Cómo medir y mejorar los niveles de inclusión de personas con TEA en el centro educativo. *Siglo Cero (Madrid)*, 49(3), 39–54. <https://doi.org/10.14201/scero20184933954>
- Marciniak, R., & Gairín-Sallán, J. (2017). Evaluación de la calidad del e-learning mediante el modelo CIPP: una experiencia de aplicación. *Revista de Educación a Distancia (RED)*, 53(1), 1–24. <https://doi.org/10.6018/red/53/1>
- Marqués, P. (1999). Entornos formativos multimedia: Elementos, plantillas de evaluación/criterios de calidad. Recuperado de <https://www.peremarques.net/calidad.htm>

- Martin Cuadrado, A. M. (s. f.). Impacto de la capacitación interna en la productividad y estandarización de procesos productivos: Un estudio de caso.
- Martínez-Corredor, C., & Jaramillo-Medina, D. (2024). Transfer of training on employee job performance: A literature review. *International Journal of Training and Development*.
<https://doi.org/10.1111/ijtd.12328>
- Martínez-Pérez, A., Lezcano-Barbero, F., Muñoz, R., & Zabaleta, R. (2024). Las TIC en la educación social: trabajando bajo presión. *EduTec. Revista Electrónica de Tecnología Educativa*, 167–187.
<https://doi.org/10.21556/edutec.2024.87.3047>
- Mertens, D. M., & Wilson, A. T. (2018). *Program evaluation theory and practice: A comprehensive guide*. Guilford Publications.
- Moller, L., Foshay, W. R., & Huett, J. B. (2019). The evolution of distance education: Implications for instructional design on the potential of the web. *TechTrends*, 52(3), 70–75.
- Morales-Chávez, M., Rodríguez-Muñoz, L., & Rengifo-Herrera, C. (2022). Factores que determinan la satisfacción estudiantil en tiempos de pandemia. *Revista Panamericana de Pedagogía*, 35(1), 27–50.
<https://doi.org/10.21555/rpp.v35i1.2573>
- Padilla, R., & Juárez, M. (2006). Efectos de la capacitación en la competitividad de la industria manufacturera. *CEPAL, Sede Subregional de la CEPAL en México*.
- Perea-Arias, Ó. D. (2017). *Guía de evaluación de programas y proyectos sociales*. Plataforma de ONG de Acción Social.
- Pineda-Herrero, P., Quesada Pallares, C., Espona-Barcons, B., & et al. (2015). How to measure the effectiveness of VET workplace learning: The FET-WL model. *Education + Training*, 57(6), 602–622.
- Pineda-Herrero, P., Quesada-Pallarès, C., & Espona-Barcons, M. (2015). Evaluación de la formación en las organizaciones: modelos y prácticas. *Revista de Psicología del Trabajo y de las Organizaciones*, 31(3), 185–194. <https://doi.org/10.1016/j.rpto.2015.06.002>
- Rodríguez-Santander, J., & Torres-Gordillo, J. J. (2016). La Evaluación de cursos de formación on line: El caso ISTAS. *RED-Revista de Educación a Distancia*.
- Ruiz-Bueno, C., & García-Orrriols, J. (2019). ¿Qué nos aporta el modelo de patrones de aprendizaje para el diseño de acciones formativas? *Revista Colombiana de Educación*, 77, 321–341.
- Stufflebeam, D. L. (1983). The CIPP model for evaluation. In G. F. Madaus, M. Scriven, & D. L. Stufflebeam (Eds.), *Evaluation Models* (pp. 117–141). Kluwer.
- Stufflebeam, D. L. (1983). *The CIPP model for program evaluation*. Kalamazoo, MI: Western Michigan University Evaluation Center.
- Stufflebeam, D. L. (2003). The CIPP Model for Evaluation. In T. Kellaghan, D. L. Stufflebeam, & L. A. Wingate (Eds.), *International Handbook of Educational Evaluation* (pp. 31–62). Springer.
- Stufflebeam, D. L., & Coryn, C. L. S. (2014). *Evaluation Theory, Models, and Applications* (2nd ed.). Jossey-Bass.
- Tejada Fernández, J., & Fernández Lafuente, E. (2007). La evaluación del impacto de la formación como estrategia de mejora en las organizaciones. *Revista Electrónica Investigación Educativa*, 9(2), 1–15.
- Tello Díaz-Maroto, I. (2010). Modelo de evaluación de la calidad de cursos formativos impartidos a través de internet. *RIED-Revista Iberoamericana de Educación a Distancia*, 13(1), 209–240.
- Vera, J. S., Acuña, N. C., Arroyo, V. M., & Zúñiga, A. J. (2021). Diagnóstico y mejora continua de la calidad educativa. In *Revolución en la formación y la capacitación para el siglo XXI* (4th ed., Vol. I). Universidad Libre y Universidad Autónoma del Caribe. ISBN 978-958-53278-7-0.