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Influence of Language On the Interpretation of Satisfaction Surveys in Professional Training: A Systematic Review and Linguistic Perspective

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ABSTRACT

This systematic review examines how linguistic structures influence the interpretation of satisfaction surveys within professional training contexts. Guided by Critical Discourse Analysis (CDA) and the Theory of Discourse Evaluation (TDE), this study analyzes 39 empirical articles published between 2018 and 2024 in Scopus-indexed journals. Following PRISMA 2020 guidelines, studies were systematically identified, screened, and synthesized, while the GRADE methodology was applied to assess evidence quality. The findings reveal that linguistic elements, such as ambiguous wording, implicit evaluative terms, and culturally biased phrasing, significantly impact the validity of survey responses. The reviewed literature shows a dominance of quantitative methodologies, with limited integration of mixed-methods and discourse analysis. Three major gaps were identified: the absence of comparative studies on survey models, the lack of research addressing emotional and motivational factors in satisfaction assessment, and the narrow contextual focus on academic and corporate settings. The study emphasizes the necessity of incorporating CDA and TDE frameworks in survey design to mitigate discursive biases and enhance instrument validity. It also calls for linguistic validation practices and the inclusion of socio-emotional dimensions in satisfaction measurement. The review contributes to applied linguistics and training evaluation by providing practical recommendations for survey designers to ensure culturally sensitive, reliable, and methodologically robust instruments. Ultimately, this research underscores that language is a key determinant of data quality in training evaluations and not merely a technical aspect of survey construction.

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1. Introduction

Satisfaction surveys are key tools in evaluating the effectiveness of professional training programs; however, multiple studies have shown that the language used in these instruments often lacks clarity and accessibility for respondents, potentially compromising the validity of the results[1, 2]. Recent evidence indicates that linguistic choices—such as ambiguous wording or culturally biased terms—can significantly influence how participants interpret the quality of the training received This issue is particularly relevant in multilingual and intercultural settings, where slight variations in phrasing can lead to diverse interpretations[3]. Consequently, these inconsistencies may result in misleading conclusions that affect the decision-making process for educational improvements[4, 5].

This situation raises a pressing concern: how can we ensure that satisfaction surveys reflect genuine perceptions and are free from unintended linguistic biases? Addressing this question is crucial, as inaccurate data from satisfaction surveys may lead to flawed organizational strategies and diminish the impact of professional development initiatives[6]. Although the importance of survey language has been acknowledged, there is still a lack of comprehensive studies that examine the relationship between linguistic structures and the validity of survey responses in professional training settings[7, 8].

In response to this research gap, this systematic review aims to analyze how the language used in satisfaction surveys influences the interpretation of results, focusing on two linguistic frameworks: Critical Discourse Analysis (CDA)[1] and the Theory of Discourse Evaluation (TDE)[2]. These approaches allow for an in-depth understanding of how linguistic structures shape meaning, reinforce institutional ideologies, and introduce potential biases that compromise data integrity[9].

In addition to the linguistic aspects, it is also necessary to reflect critically on the validity of these instruments considering cultural and emotional variables that may affect how respondents perceive satisfaction[10, 11]. For example, cultural differences can lead to varied interpretations of terms like ”satisfaction” or ”effectiveness,” impacting the comparability of survey data across different populations[12]. Despite this, most instruments still adopt a one-size-fits-all approach, overlooking these nuances.

Therefore, this review seeks to contribute to filling this gap by answering the following research questions:

- RQ1: How does the language used in satisfaction surveys influence the evaluation of training program effectiveness?
- RQ2: What are the most used methodologies in studies on satisfaction surveys in training contexts, and what are their limitations?
- RQ3: What gaps exist in the literature regarding the design of satisfaction surveys in training evaluation?

This research is particularly urgent given the increasing globalization of professional training programs and the expansion of e-learning environments where cultural and linguistic diversity is more pronounced[13, 14]. By identifying linguistic factors that affect the validity of satisfaction surveys, this study seeks to provide insights that will enable the design of more effective and culturally sensitive instruments.

Ultimately, strengthening survey design through a linguistic lens is essential for enhancing the quality of data collected in training program evaluations, supporting decision-makers in creating more accurate and evidence-based interventions.

2. Theoretical Framework

Language is the primary form of expression and communication in contemporary society, which is why its use has been the subject of interest and study across multiple disciplines such as linguistics, psychology, sociology, and didactics[15]. These fields have contributed to a deeper understanding of language and its impact on social and psychological life[16]. In the context of this study, language is conceived as a complex system of verbal or gestural signs, capable of manifesting in several ways through an individual or a broader collective. Often, it is also an expression of internal thought, articulated through words or sentences of

varying structures[17].

In addition to its role as a communication vehicle, language can also serve a referential function, which operates through non-inversive channels. This function highlights the relevance of language in informing the receiver with clarity and precision, directly affecting the simplicity and accuracy of the presented content and the intentions embedded in questions that emerge during communicative interactions[18]. The adaptability of language in different contexts makes it an essential tool in human life, where every word and expression contribute to the construction of meaning[19].

2.1. Linguistic Theoretical Frameworks Applied to Satisfaction Surveys

Language plays a fundamental role in the formulation and interpretation of satisfaction surveys, as it not only facilitates the communication of questions and responses but also structures the way respondents perceive and evaluate their experiences. In this context, two key linguistic theoretical frameworks are essential for analyzing the influence of language in survey instruments:

1. Critical Discourse Analysis (CDA)[1]
2. The Theory of Discourse Evaluation (TDE)[2]

2.1.1. Critical Discourse Analysis (CDA) and Its Application in Satisfaction Surveys

Critical Discourse Analysis (CDA) focuses on how language constructs and reproduces power relations, ideologies, and social structures through discourse[1]. In the case of satisfaction surveys, CDA allows for an examination of how question wording influences respondents' interpretation, thereby conditioning their responses and, consequently, the validity of the results[20].

From this perspective, survey design is not a neutral process but rather reflects sociolinguistic structures that can bias respondents' perceptions. For instance, the use of subjective evaluative terms or grammatical constructions that imply a preferred response can induce cognitive biases[14]. In this sense, surveys may reinforce institutional narratives rather than accurately reflecting participants' experiences[16].

Previous research has shown that CDA can be used to analyze how satisfaction surveys in professional training reinforce institutional discourses on educational quality, often preventing an objective evaluation by respondents[20]. Therefore, incorporating CDA tools in survey design and validation can help minimize the effects of language formulation on responses and improve the reliability of survey results.

2.1.2. The Theory of Discourse Evaluation (TDE) and Subjectivity in Surveys

The Theory of Discourse Evaluation (TDE)[2] posits that language not only conveys information but also incorporates subjective evaluations through lexical choices, syntax, and text structures. In the context of satisfaction surveys, this framework enables an analysis of how linguistic choices influence respondents' subjective perception and, consequently, the validity of their responses.

The studies by Bednarek[21] within the framework of Appraisal Theory have demonstrated that evaluative language systems can influence how individuals respond to questionnaires. In surveys, the use of qualifying adjectives ("excellent", "poor"), degree adverbs ("very", "quite"), and grammatical constructions suggesting implicit evaluation can shape respondents' perceptions[22].

Furthermore, TDE allows for the examination of how survey discourse structure affects respondents' interpretation. Recent studies have highlighted that questions with implicit evaluative bias may prompt socially desirable responses rather than genuine perceptions, thereby compromising the validity of the measurement instrument[10].

2.1.3. Integration of Theoretical Frameworks into Survey Design

The integration of Critical Discourse Analysis and the Theory of Discourse Evaluation into satisfaction survey design and validation offers multiple benefits:

1. Reduction of Linguistic Biases: Identifying discursive structures that condition responses allow for the reformulation of questions in a more neutral way.
2. Greater Accuracy in Satisfaction Measurement: Understanding how language transmits implicit evaluations helps in designing surveys that more accurately reflect respondents' perceptions.
3. More Rigorous Data Analysis: Applying discourse analysis tools facilitates a deeper interpretation of qualitative data obtained from open-ended survey responses.

2.2. Factors Influencing Respondents' Perception

The way a questionnaire is structured, along with the language used, can significantly affect the obtained results. This is because language influences the comprehension of questions and, consequently, the sincerity of the responses provided by respondents [23].

In various social research contexts, surveys play a crucial role in assessing user satisfaction, aiming to achieve high-quality service standards [24]. Human adaptation to the workplace is conditioned by prior socialization, making professional training a fundamental and indispensable aspect for development and career evolution. This process not only facilitates individuals' integration into the work environment but also enhances key competencies necessary for career progression [25, 26].

2.2.1. Key Concepts: Language, Satisfaction Surveys, Professional Training

The concept of language is a system of representation and communication that conveys experiences and ideas, relying on pre-existing knowledge about its meaning. To achieve this, language employs physical units called "signs," which carry differentiated value and communicative information, allowing mental information to be converted into a material structure that can be produced, transmitted, and perceived through physiological senses [27].

Thus, language and its signs are embedded within the historical institution of accumulated human knowledge, shaping our understanding of linguistic structures. In this view, what is conventionally assumed as a fixed and closed linguistic system contains diverse and evolving relational universes, influenced by cultural diversity, ideological dialogue, and historical-social contexts [28].

In education and training, for example, the setting, orientation, and positioning of those who interact, their values, life stances, language, and the set of signs and symbols used in the process, as well as the pre-existing sense and meaning associated with the formative reality, among numerous analogous aspects, supplement, guide, refine, and challenge the concrete information within the training field [29]. The abundance of informational content in modern society has shifted focus toward the accessibility and applicability of knowledge, rather than solely emphasizing formal educational information. This shift underscores the need to evaluate training effectiveness not only through factual knowledge but also through the linguistic frameworks used in satisfaction measurement instruments [30].

3. Methodology

This study follows a qualitative systematic review design, grounded in the PRISMA 2020 guidelines [31], which provide transparency and replicability for the identification, selection, and synthesis of relevant studies. The review focuses on assessing how language shapes the interpretation of satisfaction surveys within professional training contexts.

3.1. Research Design

The review was conducted using an applied linguistics approach, emphasizing the identification of linguistic biases and discursive patterns embedded in survey instruments. The research aims to critically analyze the linguistic and methodological components of satisfaction surveys used in training evaluations.

3.2. Search Strategy and Data Sources

A systematic search was carried out using the Scopus database, a comprehensive repository of peer-reviewed scientific articles in fields such as Social Sciences, Education, Business, and Management [32]. Boolean operators (AND, OR) were employed to combine key terms in both English and Spanish: "language in surveys" OR "lenguaje en encuestas", "training evaluation" OR "evaluación de capacitación", and "learning satisfaction" OR "satisfacción del aprendizaje." The search included articles published between 2018 and 2024.

3.3. Eligibility Criteria

The inclusion criteria required that studies be empirical, peer-reviewed, and related to satisfaction surveys applied within professional or educational training contexts. Furthermore, studies had to focus on linguistic factors in survey formulation or on methodological concerns affecting survey interpretation. The exclusion criteria eliminated theoretical papers without empirical data, non-peer-reviewed studies, works unrelated to survey design, and duplicate records.

3.4. Study Selection Process

From an initial pool of 68 articles, a two-stage selection process was conducted. Titles and abstracts were first screened for relevance, followed by a full-text review of potentially eligible articles. The Rayyan [33] platform was utilized to facilitate this process, allowing for blinded and semi-automated article selection to minimize reviewer bias [34]. Ultimately, 39 studies were included for final analysis. This process is summarized in the PRISMA flow diagram (see **Figure 1**).

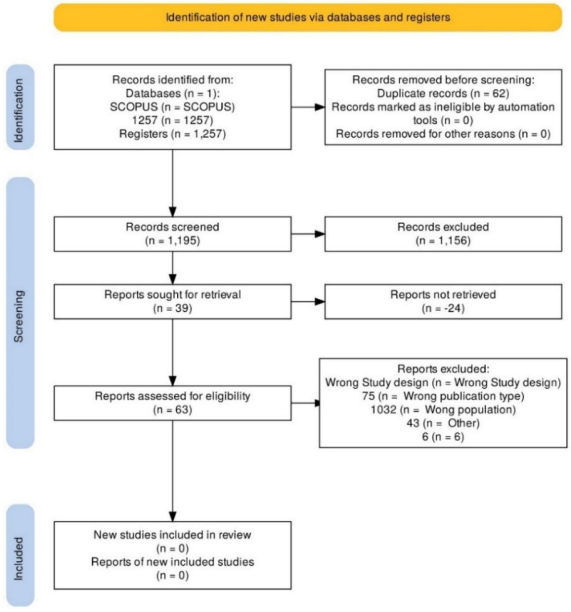

Figure 1. PRISMA Flow Diagram for Article Selection Process. (Source: Source: Adapted from Moher et al. [31] page 3, generated using Rayyan).

3.5. Data Extraction and Coding

For each selected article, the following data were extracted: research objectives, survey characteristics (linguistic formulation, structure), methodological approaches (quantitative, qualitative, or mixed method), and context of application (e.g., academic, corporate, governmental). Thematic coding was performed to classify the studies based on the research questions (RQ1, RQ2, RQ3).

3.6. Quality Assessment

The GRADE system [35] was applied to assess the quality of evidence across the selected studies. This framework categorizes studies as high, moderate, low, or very low quality, based on risk of bias, consistency, precision, and publication bias [36]. This evaluation ensured that the synthesis of findings was grounded in methodologically sound data.

3.7. Data Synthesis and Research Question Alignment

The extracted data were synthesized and categorized according to the guiding research questions. First, the influence of language on survey interpretation (RQ1) was addressed. Next, the review analyzed the methodologies employed and their limitations (RQ2), followed by the identification of research gaps related to survey design and linguistic elements (RQ3). This approach facilitated a critical and comprehensive synthesis of how linguistic and methodological factors intersect in the evaluation of satisfaction surveys in professional training environments.

4. Results

The findings of this systematic review are organized according to the three research questions and the evidence collected from the 39 selected studies. The results highlight patterns regarding the influence of linguistic elements on survey interpretation, common methodological approaches, and the principal research gaps identified in the literature.

4.1. Influence of Language on the Interpretation of Satisfaction Surveys (RQ1)

The reviewed studies consistently reveal that linguistic clarity, lexical choice, and structural formulation of survey items are decisive factors that influence respondents' perceptions and response validity. Ambiguity in question phrasing and the use of culturally biased terminology were recurrent issues [10, 11, 36].

Ge et al. [37] and Sharma et al. [38] highlight that surveys using technical jargon or culturally specific expressions result in respondent confusion, particularly in multicultural settings. Moreover, Güzel et al. [39] found that simplifying the language of surveys, while maintaining conceptual accuracy, enhances data reliability by reducing cognitive overload.

A recurrent pattern was the presence of implicit evaluative terms such as "excellent" or "poor," and modal verbs like "should" or "might," which can prompt socially desirable answers and reduce objectivity [10, 40]. This aligns with previ-

ous claims from CDA and TDE frameworks, which suggest that discourse structures influence respondents' interpretative frameworks [1, 2].

4.2. Methodologies Used and Their Limitations (RQ2)

Most of the reviewed studies employed quantitative methodologies, mainly relying on structured surveys validated through statistical tools such as Cronbach's alpha, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA) [41, 42]. However, the review identified a notable absence of mixed methods approaches that could provide deeper insights into the subjective interpretation of survey items.

Additionally, the studies largely relied on cross-sectional designs, limiting their ability to assess how interpretations of survey language may evolve over time [43, 44]. The literature also shows a methodological bias towards academic and corporate settings, with little attention to governmental or non-profit training environments [45].

4.3. Gaps in the Literature on Survey Design and Linguistic Aspects (RQ3)

Three key gaps were identified across the reviewed studies:

1. Scarcity of research addressing emotional and motivational variables in satisfaction surveys. The focus has been predominantly cognitive, disregarding how emotions and motivation affect the interpretation of survey items [43, 46].
2. Lack of comparative studies between culturally adapted and standardized survey models, hindering the development of best practices for instrument design in diverse linguistic contexts [42, 44].
3. Limited integration of critical discourse methods (CDA and TDE) into survey development and validation processes, despite theoretical recognition of their importance [14, 20].

These gaps confirm the need to bridge applied linguistics and psychometric analysis to strengthen survey design, particularly for multilingual and intercultural training environments.

4.4. Study Characteristics Overview

The reviewed studies displayed variability in terms of disciplinary focus and methodological rigor. Based on the GRADE assessment [4], 12 studies were rated as "moderate" quality, while the majority (n = 27) were rated as "low" or "very low" quality due to factors such as lack of methodological triangulation and limited sample representativeness.

A summary of the studies is provided in **Table 1**, detailing their disciplinary field, year of publication, journal, and quality classification according to GRADE.

Table 1. Summary table of the systematic review.

Title of Study	Year	Journal	Quality of Evidence (GRADE)
Development and validation of a new satisfaction scale for objective structured clinical assessments (S-OSCA): A multicenter cross-sectional study [1]	2024	Nurse Education Today	Low
Perception of learners on the effectiveness and suitability of MyDispense: a virtual pharmacy simulation and its integration in the clinical pharmacy module in Viet Nam [45]	2023	BMC Medical Education	Moderate
Patient Perceptions of Medical Students' Involvement in Clinical Classes: A Cross-Sectional Survey [13]	2024	Patient Preference and Adherence	Low
The validity and reliability properties of a Persian version of the evidence-based practice profile (EBP2) questionnaire among Iranian students of health-related fields [15]	2024	BMC Medical Education	Low
Students' Perception toward the Use of Open Educational Resources to Improve Writing Skills [27]	2023	Studies in English Language and Education	Low
Students' Perception Towards Learning Massive Open Online Courses on Coursera Platform: Benefits and Barriers [46]	2023	International Journal of Emerging Technologies in Learning	Low
Natural language processing of spatially crowdsourced data in petroleum revenue management [47]	2023	GeoJournal	Low
The Perception by University Students of the Use of ChatGPT in Education [48]	2023	International Journal of Emerging Technologies in Learning	Moderate

Table 1. *Cont.*

Title of Study	Year	Journal	Quality of Evidence (GRADE)
Effectiveness of WhatsApp as a Pedagogical Tool in Learning Phrasal Verbs: A Case Study at a Higher Educational Institute in Oman [30]	2023	Journal of Language Teaching and Research	Low
Nursing student's satisfaction with two methods of CBL and lecture-based learning [49]	2023	BMC Medical Education	Moderate
Satisfaction of medical and health science students with their clinical learning environment and its determinant factors at Debre Markos University, northwest Ethiopia [50]	2024	BMC Medical Education	Low
Satisfaction and learning experience of students using online learning platforms for medical education [33]	2024	BMC Medical Education	Moderate
Satisfaction with high fidelity clinical simulation before and after clinical practice in nursing students [14]	2023	Index de Enfermeria	Low
Satisfaction with asynchronous e-learning: An exploratory factor analysis of the Learner Satisfaction with Asynchronous e-Learning (LSAeL) instrument [51]	2024	Nurse Education in Practice	Low
Continuous training based on the needs of operating room nurses using web application: a new approach to improve their knowledge [42]	2024	BMC Medical Education	Low
The effect of flipped learning on students' basic psychological needs and its association with self-esteem [52]	2024	BMC Medical Education	Moderate
Effectiveness of a report writing training program using peer review: evidence from first- year medical students [53]	2024	BMC Medical Education	Low
Electives in the medical curriculum—an opportunity to achieve students' satisfaction? [54]	2020	BMC Medical Education	Low
Students' perceptions of learning environment and their leisure-time exercise in medical school: Does sport background matter? [28]	2020	Perspectives on Medical Education	Low
Students' satisfaction and continued intention toward e-learning: a theory-based study [54]	2021	Medical Education Online	Moderate
A survey on different dimensions for graphical keyword extraction techniques: Issues and Challenges [55]	2021	Artificial Intelligence Review	Low
Evaluation of an international medical E-learning course with natural language processing and machine learning [25]	2021	BMC Medical Education	Low
Instructional design and educational satisfaction for virtual environment simulation in undergraduate nursing education: the mediating effect of learning immersion [56]	2022	BMC Medical Education	Low
Perceptions of education quality and influence of language barrier: graduation survey of international medical students at four universities in China [57]	2020	BMC Medical Education	Low
Knowledge, training, and attitudes of students and speech-language pathologists about providing communication services to individuals who are transgender [58]	2020	American Journal of Speech-Language Pathology	Moderate
A novel instrument of cognitive and social congruence within peer-assisted learning in medical training: Construction of a questionnaire by factor analyses [44]	2020	BMC Medical Education	Low
Standard ophthalmology residency training in China: an evaluation of resident satisfaction on training program in Guangdong Province [4]	2023	BMC Medical Education	Low
Improving the communication skills of medical students ——A survey of simulated patient-based learning in Chinese medical universities [59]	2022	BMC Medical Education	Moderate
Enhancement of student perceptions of learner-centeredness and community of inquiry in flipped classrooms 13 Education 1303 Specialist Studies in Education 13 Education 1302 Curriculum and Pedagogy [60]	2018	BMC Medical Education	Low
Social Aspect of Student's Language Learning Style in Differentiated ESP Instruction [61]	2020	Universal Journal of Educational Research	Low
Validation of a generic impact survey for use by health library services indicates the reliability of the questionnaire [62]	2022	Health Information and Libraries Journal	Low
Training on involving cognitions and perceptions in the occupational health management and work disability assessment of workers: development and evaluation [10]	2022	BMC Medical Education	Low
Validation of a questionnaire about Environmental Literacy through expert judgement [63]	2022	Revista Eureka	Low
Questionnaire on the training profile of a learning therapy specialist: Creation and validation of the instrument [64]	2020	Sustainability (Switzerland)	Low
Students' perspectives on undergraduate oral surgery education [65]	2019	BMC medical education	Low
Language of written medical educational materials for non-English speaking populations: An evaluation of a simplified bi-lingual approach [26]	2019	BMC Medical Education	Low

Table 1. *Cont.*

Title of Study	Year	Journal	Quality of Evidence (GRADE)
Evaluation of pharmacy students' knowledge and perceptions of transitions of care services [29]	2022	Pharmacy Education	Low
A questionnaire based evaluation of the awareness among dental practitioners on minimally invasive approach for superficial enamel stains [66]	2020	Indian Journal of Forensic Medicine and Toxicology	Low
Survey results of job status of residents in a standardized residency training program [65]	2019	BMC Medical Education	Low

Note: The studies were evaluated using the GRADE methodology, classifying them into four levels of evidence quality: High, Moderate, Low, and Very Low. This classification helps to interpret the reliability of the findings and their applicability in the analysis of satisfaction surveys.

4.5. Summary of Key Findings

The findings demonstrate that linguistic factors are not mere technicalities but play a central role in shaping respondents' perceptions and, by extension, in influencing the decisions derived from survey data. However, the dominance of quantitative approaches and the limited application of critical discourse analysis or mixed methods restrict a more nuanced understanding of how language constructs meaning within the survey process.

Moreover, the lack of studies that address socio-emotional factors or that compare survey models across diverse cultural and linguistic groups hinders the generalization of current knowledge. These insights reinforce the need for future research to incorporate interdisciplinary frameworks combining applied linguistics, psychometrics, and social sciences.

5. Discussion

The findings of this systematic review reaffirm the pivotal role that language plays in shaping the interpretation of satisfaction surveys within professional training contexts. The reviewed studies provide strong evidence that linguistic structures directly influence how respondents perceive and assess training programs, thus affecting data validity and subsequent decision-making processes [10, 47, 48].

5.1. Alignment with Linguistic Theories: CDA and TDE

The results align closely with the theoretical assumptions of Critical Discourse Analysis (CDA) [1] and the Theory of Discourse Evaluation (TDE) [2]. Consistent with Fairclough's argument [1], several studies demonstrated that discursive structures embedded in survey questions are not ideologically neutral. The use of implicit evaluative language detected in studies such as Kaliszewski et al. [13] and Elahifar et al. [15] confirms the capacity of survey language to reinforce institutional narratives and introduce cognitive biases.

Moreover, the findings of Ngo et al. [48] regarding the influence of modal verbs and intensifiers ("very," "should," "might") are consistent with TDE's postulation that lexical and grammatical choices shape respondents' attitudes [28, 29]. This highlights the importance of integrating these frameworks into survey design to mitigate unintended discursive bias.

5.2. Convergence and Divergence with Prior Research

While most studies converge on the need for linguistic clarity and cultural adaptation [42, 44, 48], there are divergent perspectives regarding the level of technicality appropriate for survey items. Some research advocates for simplified and universally accessible wording to reduce ambiguity [44, 47], whereas others suggest that oversimplification may diminish the precision required in specialized professional settings.

This discrepancy reflects a broader debate in applied linguistics regarding how to balance communicative clarity with terminological rigor when constructing assessment instruments [14, 21]. It also reinforces the need to contextualize survey design according to the linguistic and professional background of respondents.

5.3. Methodological Challenges and Biases

The dominance of quantitative approaches in the reviewed studies constrains the interpretive depth of how language mediates satisfaction survey responses. The prevalence of cross-sectional designs [46, 47] limits the ability to assess long-term shifts in respondents' interpretations, influ-

enced by cultural, emotional, or contextual variables.

Additionally, the underrepresentation of non-academic sectors, such as community-based or governmental programs[44], reduces the external validity and generalizability of findings. The absence of mixed method designs and the limited application of CDA and TDE in empirical work[20, 48] remain key weaknesses in the current body of literature.

5.4. Implications for Future Research and Survey Design

The review underscores the urgent need to incorporate linguistic validation procedures, including semantic and cultural equivalence testing, into the survey development process for multilingual and multicultural contexts[10, 19, 30]. Without such measures, surveys risk reinforcing hidden biases that compromise data quality and misinform stakeholders.

To exemplify this issue, **Table 2** (included later in this section) illustrates how minor differences in lexical choices between English and Spanish versions of survey items can alter respondents' interpretations and introduce unintentional evaluative biases.

Furthermore, adopting mixed method approaches that combine statistical reliability tests (e.g., Cronbach's alpha) with qualitative discourse analysis will enrich understanding and enable the detection of latent discursive patterns not captured through purely quantitative measures[40, 48].

Finally, the incorporation of socio-emotional dimensions, often neglected in current survey models, is essential for improving the validity and sensitivity of satisfaction instruments[51, 52].

Table 2. Example of Linguistic Bias in Translation.

Original Question (English)	Translation into Spanish	Possible Linguistic Issue
How satisfied are you with this training program?	¿Qué tan satisfecho está con este programa de formación?	The direct translation uses the term "satisfecho", which in Spanish can carry a more absolute connotation than in English, affecting responses.
How useful did you find the training	¿Qué tan útiles le parecieron los materiales de formación?	The adjective 'útiles' may introduce a positive bias, as it pre-supposes utility, limiting neutrality.
Would you recommend this course to a colleague?	¿Recomendaría este curso a un colega?	The direct translation lacks conditional nuance, as 'Would you' in English may feel softer than the assertive '¿Recomendaría?' in Spanish.
How clear were the instructions provided by the trainers?	¿Qué tan claras fueron las instrucciones proporcionadas por los formadores?	The word 'claras' may not account for cultural differences in perceptions of clarity, depending on instructional norms.

5.5. Contribution to Applied Linguistics and Training Evaluation

This systematic review contributes to the field of applied linguistics by reaffirming the notion that survey language operates not as a neutral information conduit, but as a discursive mechanism that actively shapes and sometimes distorts respondents' perceptions of training program effectiveness[1, 2, 53]. By synthesizing findings from empirical research with CDA and TDE frameworks, this study offers valuable insights for both linguists and training professionals, emphasizing the need to treat survey design as a critical site of discourse construction.

The review also provides practical contributions to training evaluation processes, particularly in the growing landscape of globalized and intercultural professional learning. Incorporating linguistic and cultural validation techniques into survey design improves not only data reliability but also equity and inclusiveness in training assessment practices[10, 30, 62].

To further illustrate the discursive challenges identified in the literature, **Table 2** presents common issues observed when satisfaction survey items are translated into Spanish. This highlights how semantic shifts can introduce unintended biases, reinforcing the importance of rigorous back-translation and cultural adaptation procedures[19, 30].

As demonstrated in **Table 2**, translation-related biases can arise even in straightforward survey items. Words such as "satisfecho" or "útiles" may inadvertently introduce positive or absolute connotations do not present in the original English phrasing. These subtle shifts can distort response

patterns and undermine the neutrality of data collection instruments [10, 19].

This reinforces the necessity of applying robust semantic validation processes, including back-translation techniques, expert review by bilingual linguists, and pilot testing across culturally diverse samples. Doing so ensures that translated survey items preserve both the intended meaning and the discursive neutrality of the original instrument [19, 30, 48].

6. Conclusions

This systematic review highlights that language is a key determinant in shaping how respondents interpret satisfaction surveys in professional training environments. Linguistic factors such as ambiguity, evaluative terms, and cultural bias significantly affect response validity and, consequently, the effectiveness of data-driven decision-making processes [10, 54].

One of the main contributions of this study is the empirical confirmation of the influence of discourse structures on survey responses, as theorized by Critical Discourse Analysis (CDA) and the Theory of Discourse Evaluation (TDE) [1, 2]. Despite these frameworks being widely referenced, the review reveals that few studies operationalize them during survey development and validation stages [20, 48].

Additionally, this review identifies three critical gaps in the existing literature: (1) the underrepresentation of socio-emotional variables in satisfaction surveys; (2) the scarcity of comparative studies across culturally adapted and standardized instruments; and (3) the limited application of discourse analysis methods in survey construction [43, 48, 62].

Addressing these gaps is essential for improving the validity, cultural sensitivity, and reliability of satisfaction surveys in diverse professional contexts.

Based on the evidence gathered, this study recommends the following actions for practitioners and researchers involved in survey design and evaluation:

1. Linguistic and cultural validation: Surveys should undergo semantic and cultural equivalence testing, including back-translation and expert review, to ensure consistent interpretations across different linguistic and cultural groups [19, 30].
2. Integration of mixed methods: Combining quantitative validation (e.g., reliability and factor analysis) with qualitative discourse analysis will improve the identification of hidden discursive biases in survey items [40, 48].
3. Inclusion of socio-emotional constructs: Future surveys should incorporate items that address emotional and motivational factors, as these dimensions influence satisfaction and are often overlooked in traditional models [43, 48].
4. Operationalization of CDA and TDE: These frameworks should not remain theoretical references; they should be incorporated directly into survey development workflows to minimize evaluative bias and enhance neutrality [1, 2, 20].

To advance the field, this review proposes several areas for future research:

- Longitudinal studies: Investigating how interpretations of survey language evolve over time among diverse respondent groups will provide deeper insights into discursive dynamics [46, 47].
- Comparative studies on survey models: Research should systematically compare culturally adapted surveys versus standardized instruments to determine best practices in multilingual contexts [42, 44].
- Interdisciplinary approaches: Integrating applied linguistics with psychometrics, educational measurement, and cultural psychology will foster more robust and context-sensitive evaluation tools [14, 48].

Ultimately, addressing these research gaps will contribute to the creation of surveys that not only meet psychometric standards but also align with cultural and linguistic diversity, ensuring more equitable and valid training evaluations in globalized environments [55].

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Conflicts of Interest

The authors declare no conflict of interest.

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