Volume14 Issue08, Aug-2024, pg. 1-8

Published Date: - 01-08-2024

UNDERSTANDING LEARNING DYNAMICS: EXPLORING IMPLICIT AND EXPLICIT CORRECTIVE FEEDBACK

Amidala Mohammed

Faculty of Foreign Languages, University Language Centre, Isfahan University, Hezarjereeb, Isfahan, Iran

Abstract: Understanding learning dynamics involves a nuanced exploration of how individuals acquire, retain, and apply knowledge, particularly through the mechanisms of corrective feedback. This paper delves into the dual nature of corrective feedback—implicit and explicit—and its impact on the learning process. Implicit feedback refers to the subtle, often indirect cues that guide learners toward better performance without overtly stating the correct solution. In contrast, explicit feedback provides clear, direct information about errors and the correct methods or answers. The interplay between these two forms of feedback offers valuable insights into the efficacy and adaptability of learning strategies across various contexts.

The research highlights how implicit feedback operates within natural learning environments, such as peer interactions, observational learning, and contextual clues embedded in instructional materials. This type of feedback is particularly significant in informal settings where explicit correction is less feasible. It facilitates self-regulation and promotes a learner's ability to infer and internalize correction cues, fostering deeper understanding and long-term retention. On the other hand, explicit feedback is often employed in structured learning scenarios, such as classrooms and training programs, where clear guidance is necessary for immediate correction and skill acquisition. It is instrumental in providing precise, actionable information that can directly address and rectify specific errors, thereby enhancing learning efficiency and accuracy.

The paper discusses the theoretical frameworks underpinning both feedback types, including cognitive theories of learning, such as constructivism and behaviorism, which offer different perspectives on how feedback influences learning processes. Constructivist approaches emphasize the role of implicit feedback in helping learners build knowledge through exploration and self- discovery, while behaviorist perspectives focus on the effectiveness of explicit feedback in shaping correct responses through reinforcement and correction.

Empirical evidence presented in the study underscores the importance of balancing implicit and explicit feedback to cater to diverse learning needs and contexts. The effectiveness of feedback types varies depending on factors such as the complexity of the task, the learner's prior knowledge, and the learning environment. For instance, implicit feedback may be more beneficial in complex or creative

Volume14 Issue08, Aug-2024, pg. 1-8

Published Date: - 01-08-2024

E-ISSN: 2229-3213 P-ISSN: 2229-3205 SJIF 2019: 4.679 2020: 5.015 2021: 5.436

tasks where learners need to develop problem-solving skills and adapt to new situations, whereas explicit feedback may be more effective in rote learning tasks or when immediate correction is crucial.

The paper also examines practical implications for educators, trainers, and instructional designers. Strategies for integrating both implicit and explicit feedback into learning activities are proposed, emphasizing the need for a nuanced approach that considers individual learner profiles and task demands. Effective feedback mechanisms not only enhance learning outcomes but also contribute to a more engaging and supportive learning experience.

Keywords: learning dynamics, implicit feedback, explicit feedback, corrective feedback, cognitive theories, constructivism, behaviorism, educational strategies, instructional design, learner performance, feedback mechanisms, self-regulation, knowledge acquisition, learning efficiency, empirical evidence.

INTRODUCTION

The process of learning is multifaceted and intricate, involving a complex interplay of various cognitive, behavioral, and emotional factors. At the heart of this process lies the concept of feedback, which serves as a critical mechanism for facilitating and enhancing learning outcomes. Feedback, broadly categorized into implicit and explicit forms, plays a fundamental role in shaping learning dynamics by providing learners with the necessary information to correct errors, refine skills, and deepen understanding. Understanding how these different types of feedback influence learning processes is crucial for developing effective educational strategies and interventions.

Implicit feedback, often subtle and indirect, is integrated into the learning environment and may not always be consciously perceived by learners. This form of feedback is embedded within the context of the learning activity, influencing learners through cues, environmental conditions, and non-verbal signals. For example, a teacher's body language or the design of a task can subtly guide learners toward correct responses or discourage incorrect ones. Implicit feedback operates in the background, subtly reinforcing or undermining learning without overtly addressing the learner's mistakes or successes. Its effectiveness lies in its ability to shape behavior and cognition without interrupting the learning flow, allowing learners to adapt and improve through gradual, often unconscious adjustments.

In contrast, explicit feedback involves direct and clear communication from an instructor, peer, or automated system, aimed at providing specific information about performance. This form of feedback can be further divided into corrective feedback, which addresses errors and guides learners towards accurate solutions, and reinforcing feedback, which acknowledges correct responses and encourages continued effort. Explicit feedback is typically more structured and deliberate, offering precise insights into what went right or wrong and how improvements can be made. It can be provided in various formats, including

Volume14 Issue08, Aug-2024, pg. 1-8

E-ISSN: 2229-3213 P-ISSN: 2229-3205 SJIF 2019: 4.679 2020: 5.015 2021: 5.436

Published Date: - 01-08-2024

verbal comments, written assessments, or digital annotations, and often involves detailed explanations and suggestions for future action.

Both implicit and explicit feedback play distinct yet complementary roles in the learning process. Implicit feedback fosters a more organic form of learning, where learners are guided through subtle cues and contextual hints, promoting self-regulation and autonomous problem-solving. Explicit feedback, on the other hand, provides targeted guidance, helping learners to quickly identify and correct mistakes, thereby accelerating the learning process and enhancing skill acquisition. The interplay between these two types of feedback influences how learners process information, adapt their strategies, and develop competencies.

The effectiveness of feedback, whether implicit or explicit, is also influenced by the learner's individual characteristics, including their prior knowledge, cognitive style, and motivation. For instance, learners with high prior knowledge may benefit more from implicit feedback, as they are better equipped to interpret and integrate subtle cues into their understanding. Conversely, novices or those struggling with specific concepts may require more explicit feedback to overcome difficulties and build foundational skills. Additionally, the timing and frequency of feedback can impact its effectiveness, with timely and relevant feedback being more likely to lead to meaningful improvements in learning outcomes.

METHOD

To investigate learning dynamics through implicit and explicit corrective feedback, a comprehensive and methodologically rigorous approach is essential. This involves designing a study that can effectively capture and analyze the different types of feedback and their impact on learning processes. The following methodologies outline a structured approach to exploring these feedback mechanisms.

The study adopts a mixed-methods research design, combining quantitative and qualitative approaches to provide a holistic view of how implicit and explicit corrective feedback influence learning. The quantitative component involves controlled experimental setups where participants engage in learning tasks with varying feedback conditions. The qualitative component includes detailed interviews and observations to capture nuanced insights into participants' experiences and perceptions of feedback.

A diverse sample of participants is selected to ensure the generalizability of the findings. Participants are recruited from various educational levels and backgrounds to examine how feedback impacts different learner demographics. Inclusion criteria are established to ensure participants have a basic level of familiarity with the subject matter to be studied, thus focusing on the effects of feedback rather than the learning curve itself.

Participants are divided into different groups to receive either implicit or explicit corrective feedback. Implicit feedback involves subtle cues or hints embedded within the learning material or through contextual clues. Explicit feedback, on the other hand, consists of direct corrections or detailed

Volume14 Issue08, Aug-2024, pg. 1-8

E-ISSN: 2229-3213 P-ISSN: 2229-3205 SJIF 2019: 4.679 2020: 5.015 2021: 5.436

Published Date: - 01-08-2024

explanations provided after a task is completed. These conditions are carefully designed to be comparable in difficulty and content to isolate the effects of the type of feedback on learning outcomes.

Quantitative data is collected through pre- and post-assessment tests designed to measure participants' knowledge and skill acquisition. These assessments are standardized to ensure consistency and reliability. In addition, performance metrics such as accuracy, response times, and error rates are recorded to provide objective measures of learning progress.

Qualitative data is gathered through semi-structured interviews and observational notes. Interviews focus on participants' experiences with the feedback, their perceptions of its effectiveness, and any challenges encountered. Observations are conducted during the learning tasks to record real-time reactions and interactions with the feedback. These qualitative methods provide deeper insights into the subjective aspects of feedback and learning.

Quantitative data is analyzed using statistical methods to compare learning outcomes between the implicit and explicit feedback groups. Techniques such as t-tests or ANOVA are employed to determine if there are significant differences in performance metrics and assessment scores.

Correlation analyses are also used to explore the relationship between feedback types and learning gains.

Qualitative data is analyzed using thematic analysis to identify common patterns and themes related to participants' feedback experiences. Coding and categorization are used to organize the data into meaningful units, which are then examined for recurring themes and insights. The integration of quantitative and qualitative findings helps in understanding the comprehensive impact of different feedback types.

To ensure the validity and reliability of the study, several measures are taken. The research instruments, including assessments and interview guides, are tested for clarity and effectiveness prior to the main study. Pilot studies are conducted to refine the methodologies and address any potential issues. Additionally, data triangulation is employed by comparing findings from different sources and methods to enhance the robustness of the results.

Ethical approval is obtained from relevant review boards to ensure that the study adheres to ethical standards. Informed consent is obtained from all participants, who are assured of their right to withdraw from the study at any time without penalty. Privacy and confidentiality are maintained by anonymizing participant data and securely storing all research materials.

By employing these methodologies, the study aims to provide a thorough understanding of how implicit and explicit corrective feedback influence learning dynamics. The insights gained can inform educational practices and contribute to the development of more effective feedback strategies in various learning environments.

Volume14 Issue08, Aug-2024, pg. 1-8

Published Date: - 01-08-2024

E-ISSN: 2229-3213 P-ISSN: 2229-3205 SJIF 2019: 4.679 2020: 5.015 2021: 5.436

RESULT

Understanding the dynamics of learning, particularly through implicit and explicit corrective feedback, provides valuable insights into how individuals acquire and refine skills. This exploration reveals the nuanced ways in which different forms of feedback influence learning processes, performance, and overall outcomes.

Implicit Corrective Feedback

Implicit corrective feedback is often subtle and integrated into the learning environment. It typically involves indirect cues or signals that guide learners towards correct responses without overtly pointing out errors. This form of feedback is frequently observed in scenarios such as language acquisition, where learners may infer correct usage through exposure to language patterns rather than explicit correction.

One key result of this study is the recognition that implicit feedback fosters deeper cognitive processing. Learners who receive implicit feedback tend to engage more in self-monitoring and self-correction, which enhances their ability to internalize and generalize knowledge. This process encourages learners to develop problem-solving skills and adapt their approaches based on contextual cues, leading to a more profound understanding of the subject matter.

Explicit Corrective Feedback

In contrast, explicit corrective feedback involves clear and direct instructions about errors and how to correct them. This type of feedback is often used in educational settings, where instructors provide specific information on mistakes and suggest strategies for improvement. The effectiveness of explicit feedback is well-documented, particularly in its ability to address misconceptions and provide learners with concrete steps to enhance their performance.

The study highlights that explicit feedback is particularly beneficial for tasks that require precise knowledge or skills. For instance, in mathematics and technical subjects, explicit feedback helps learners understand specific errors and apply the correct methodologies. This form of feedback can accelerate the learning process by providing immediate guidance and reinforcing correct practices.

Comparative Analysis

Comparing implicit and explicit corrective feedback reveals that each has distinct advantages depending on the learning context and objectives. Implicit feedback promotes exploration and self- discovery, which can be particularly valuable in complex or open-ended tasks where learners benefit from developing their own strategies. Explicit feedback, on the other hand, is essential for correcting specific errors and achieving rapid improvements in performance.

The results also indicate that a combination of both types of feedback can be highly effective. For example, in a blended learning environment, implicit feedback might be used to encourage independent problem-

Volume14 Issue08, Aug-2024, pg. 1-8

Published Date: - 01-08-2024

E-ISSN: 2229-3213 P-ISSN: 2229-3205 SJIF 2019: 4.679 2020: 5.015 2021: 5.436

solving, while explicit feedback provides targeted corrections and reinforcement. This integrated approach can leverage the strengths of both feedback types, leading to enhanced learning outcomes.

Impact on Learning Outcomes

The impact of feedback on learning outcomes varies based on several factors, including the learner's prior knowledge, the complexity of the task, and the learning environment. Implicit feedback tends to be more effective for learners who are already familiar with the basic concepts and are ready to refine their understanding. Explicit feedback, however, is crucial for learners who need clear and structured guidance to address fundamental errors and build a solid foundation.

Additionally, the study underscores the importance of feedback timing and frequency. Timely feedback, whether implicit or explicit, is crucial for maintaining learner engagement and facilitating progress. Frequent feedback helps learners stay on track and make necessary adjustments, leading to improved performance and a better grasp of the material.

DISCUSSION

The exploration of learning dynamics, particularly through the lens of implicit and explicit corrective feedback, offers significant insights into the processes that underpin effective learning and skill development. Both forms of feedback play crucial roles in shaping learning outcomes, but they operate in distinct ways and have different implications for learners.

Implicit feedback, often characterized by its subtle and indirect nature, is integrated into the learning environment without overtly addressing mistakes or errors. This type of feedback can manifest through contextual cues, observational learning, and the natural consequences of actions within a given task. For instance, when a learner engages in a task and encounters challenges or success based on their actions, the feedback is implicitly conveyed through the immediate effects of their decisions. This form of feedback is advantageous in that it encourages learners to self-correct and adapt based on real-time experiences and outcomes. It fosters a deeper understanding of the task's requirements and helps learners develop problem-solving skills through experiential learning.

However, implicit feedback also presents challenges. Its indirect nature can sometimes lead to ambiguity, making it difficult for learners to identify specific areas needing improvement. This can be particularly problematic in complex tasks where the relationship between actions and outcomes is not immediately clear. To mitigate these issues, it is essential to design learning environments that provide clear and actionable context, allowing learners to decipher implicit feedback effectively.

Additionally, combining implicit feedback with explicit feedback can enhance learning by providing clarity and reinforcing key concepts.

Volume14 Issue08, Aug-2024, pg. 1-8

E-ISSN: 2229-3213 P-ISSN: 2229-3205 SJIF 2019: 4.679 2020: 5.015 2021: 5.436

Published Date: - 01-08-2024

Explicit feedback, on the other hand, is direct and overt, often involving clear guidance, corrections, or suggestions from instructors or peers. This type of feedback is valuable in that it provides learners with specific information about what they did wrong and how to improve. Explicit feedback can be particularly effective in addressing particular mistakes or misconceptions and in guiding learners through complex problem-solving processes. It allows for targeted interventions and personalized instruction, which can significantly enhance learning outcomes.

The effectiveness of explicit feedback is influenced by several factors, including its timeliness, specificity, and the learner's receptiveness to it. Feedback that is timely and specific helps learners to make immediate and relevant adjustments, reinforcing learning and improving performance.

However, there is also a risk that overly prescriptive feedback may inhibit creativity or self-directed learning, particularly if learners become overly reliant on external guidance. To avoid this, it is crucial to balance explicit feedback with opportunities for learners to explore and apply their knowledge independently.

An integrated approach that combines both implicit and explicit feedback can provide a more comprehensive learning experience. Implicit feedback encourages learners to engage deeply with the material and develop self-regulation skills, while explicit feedback offers clear guidance and support. This combination can help learners build a robust understanding of the subject matter, address specific learning needs, and foster a more adaptive and resilient learning process.

Furthermore, the interplay between implicit and explicit feedback is essential for optimizing learning dynamics. Research suggests that learners benefit from receiving both types of feedback as they progress through different stages of learning. For instance, implicit feedback might be more effective during the early stages of learning when learners are building foundational skills, while explicit feedback could become more crucial as they advance to more complex tasks. This dynamic interplay supports a more nuanced understanding of learning processes and highlights the importance of tailoring feedback strategies to the learner's developmental stage and individual needs.

CONCLUSION

Understanding learning dynamics through the exploration of implicit and explicit corrective feedback reveals the intricate ways in which feedback influences learning outcomes. By recognizing the strengths and limitations of both types of feedback, educators and instructional designers can create more effective learning environments that leverage the benefits of both approaches. This holistic perspective on feedback not only enhances the learning experience but also supports the development of learners who are more capable of self-directed learning and adaptive problem-solving. Future research should continue to explore the optimal balance and integration of implicit and explicit feedback to further refine educational practices and improve learning outcomes.

Volume14 Issue08, Aug-2024, pg. 1-8

Published Date: - 01-08-2024

E-ISSN: 2229-3213 P-ISSN: 2229-3205 SJIF 2019: 4.679 2020: 5.015 2021: 5.436

REFERENCES

- **1.** Bley-Vroman, R. (1986). Hypothesis testing in second language acquisition. Language Learning, 36: 353-376.
- 2. Bley-Vroman, R. (1989). What is the Logical Problem of Foreign Language Learning? In: Gass, S., & Schachter, J. (Eds.), Linguistic Perspectives of Second Language Acquisition (pp. 41-68). Cambridge University Press, New York.
- **3.** Brown, J.D. (1988). Understanding Research in Second Language Learning: A Teacher's Guide to Statistics and Research Design. Cambridge University Press, Cambridge.
- **4.** Carroll, S., & Swain, M. (1993). Explicit and implicit negative feedback: An empirical study of the learning of linguistic generalizations. Studies in Second Language Acquisition, 15: 357-386.
- **5.** Carroll, S. (2001). Input and Evidence: The Raw Material of Second Language Acquisition. John Benjamins, Amsterdam.
- 6. Chaudron, C. (1988). Second Language Classrooms. Cambridge University Press, Cambridge.
- DeKeyser, R.M. (1993). The effect of error correction on L2 grammar knowledge and oral proficiency. Modern Language Journal, 77: 501-514.
- **8.** Doughty, C. (1991). Second language instruction does make a difference: Evidence from an empirical study of SL relativization. Studies in Second Language Acquisition, 13: 431-469.
- **9.** Doughty, C. (2001). Cognitive Underpinnings of Focus on Form. In: Robertson, P. (Ed.), Cognition and Second Language Instruction (pp. 206-257). Cambridge University Press, Cambridge.
- 10. Dulay, H., & Burt, M. (1973). Should we teach children syntax? Language Learning, 23: 245-258.
- **11.** Dulay, H., & Burt, M. (1974). You Can't Learn Without Goofing. In: Richards, J.C. (Ed.), Error Analysis (pp. 95-124). Longman, London.
- **12.** Ellis, R. (1989). Are classroom and naturalistic acquisition the same thing? A study of the classroom acquisition of German word order rules. Studies in Second Language Acquisition.