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CULTIVATING SYSTEMIC THINKING THROUGH EDUSEMIOTICS AND HOLISTIC LANGUAGE EDUCATION

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Abstract: *The increasing complexity of global ecological challenges necessitates the development of systemic thinking and relational awareness in education, particularly in disciplines connected to life sciences. This paper explores how holistic language education, grounded in the principles of edusemiotics, can foster ecological literacy and cultivate learners' capacity to understand interconnected systems. The paper highlights the need to develop a systemic and relational understanding as the basis underlying the domain of language interactions for the purpose of better integrating sustainable concepts related to the life sciences. Ecological issues and the need to develop critical skills such as ecoliteracy and ecological awareness have become relevant topics in academic environments across disciplines of study, especially in the Life Sciences. Students from the University of Life Sciences 'King Mihai I' from Timisoara specializing in fields related to this area of study are encouraged to grasp the fact that we are not independent of the world around us and we have to take into account that social/cultural/biological entities and phenomena are interrelated at many levels in highly dynamic processes.*

• Introduction

The paper advocates for ecological literacy, which involves understanding interdependencies among biological, social, and cultural phenomena, while appreciating the dynamic processes through which these systems operate. The failure to instill such systemic awareness contributes to ongoing ecological crises, underscoring the need to reform educational models to emphasize relational thinking, critical reflection, and systems-oriented reasoning.

• Material and method

A qualitative methodology informed by biosemiotics and ecolinguistics is proposed to examine pedagogical strategies that integrate systemic thinking and relational understanding into English language instruction for students in the life sciences. Data collection would include classroom observations, learner interviews, and analysis of language production in context.

• Results and discussions

This paper inquires into the possibilities of pursuing the educational need of developing ecological literacy through ecolinguistics and edusemiotics. Developing "ecological literacy" has become an essential as part of the ecolinguistic endeavour, as the pursuit of sustainability depends fundamentally on education. We summarize the pedagogical implications of implementing edusemiotics and ecoliteracy in language instruction, which involves creating learning environments that prioritize dialogue and active meaning-making. Thus, educators are encouraged to:

1. Integrate ecological content into language activities to cultivate ecological literacy.
 2. Foster interpretive skills through collaborative exercises and reflective discussions.
 3. Encourage learners to generate hypotheses and critically evaluate information, promoting abduction as a core reasoning skill.
 4. Highlight the relational and systemic aspects of human-environment interactions to reinforce interconnected thinking.
- This integration can lead to more holistic educational practices that address both the cognitive and the ecological dimensions of learning.

• Conclusions

Reconceptualizing language learning as a semiotic and continuous process has profound implications for education.

The paper has demonstrated that ecolinguistics complements edusemiotics in the educational endeavour we have advanced, by exploring the relationship between language and ecological systems. We have highlighted the importance of language and interdisciplinary systemic thinking, in that linguistic practices shape, reflect, and influence human interactions with the environment.

Only by fostering ecological literacy at all levels can education equip individuals to engage constructively with the environment and contribute to a more balanced and sustainable future.