

THE IMPACT OF SOCRATIC SEMINARS ON PROFESSIONAL COMMUNICATION SKILLS AMONG AGRICULTURAL STUDENTS

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ABSTRACT

Effective professional communication is essential for agricultural students to succeed in academic, professional, and industry settings. This article explores the role of Socratic seminars as an educational method for enhancing critical thinking, verbal and non-verbal communication, and engagement in agricultural education. The integration of technology in Socratic seminars is also discussed, highlighting its role in fostering interactive, inquiry-driven learning environments. Despite challenges such as institutional constraints and resource limitations, Socratic seminars offer a promising approach to improving argumentation skills, cognitive development, and stakeholder communication in agricultural education. Future research should explore adaptive strategies to optimize this method for diverse educational and professional settings.

KEYWORDS Socratic seminars, professional communication, agricultural education, critical thinking, verbal and non-verbal communication, inquiry-based learning, student engagement, stakeholder communication, technology in education

INTRODUCTION

Professional communication is a fundamental component of the globalized agricultural sector, playing a crucial role in productivity enhancement, stakeholder collaboration, policy implementation, and market competitiveness. Moreover, communication skills contribute to professional identity construction, with international practitioners emphasizing the importance of genre knowledge in business communication (Zhang, 2017). The methodology for teaching professional communication in English in agricultural education should be purposeful and adapted to the specifics of the industry. One of the main steps is to identify specific training goals that can include the development of oral and written communication, presentation skills, the business negotiation process, and other aspects of professional communication. (Nuratdinova, 2024). Research highlights the importance of developing professional communication skills in agricultural students. Key competencies identified by faculty include writing ability, critical thinking, and ethical communication (Morgan & Rucker, 2013). Employers consistently value written, visual, and oral communication skills, as well as character traits. To enhance these skills, innovative approaches like professional dialogue seminars can help students integrate subject knowledge into research proposals and improve critical thinking. Additionally, intentional instruction in public speaking and communication strategies for diverse audiences is crucial, as current curricula often focus narrowly on academic presentations (Kantar et al., 2023). By incorporating these elements into agricultural education programs, students can be better prepared for the dynamic nature of communication in the field and more effectively engage with various stakeholders, including the public and policymakers. Recent pedagogical innovations, such as the flipped classroom model (Borasheva, 2023), demonstrate how structured pre-class learning combined with active in-class application can bridge this gap. When paired with Socratic seminars—which emphasize dialogic critical thinking—these approaches create a synergistic framework for developing both technical and intercultural communication skills in agricultural contexts.

Agricultural students face several challenges in developing communication skills. These include insufficient stakeholder involvement, poor information exchange, knowledge and skills gaps, resource constraints, and farmers' perceptions (Tadele Workineh et al., 2022). While academic language ability may suffice for coursework, students struggle to meet global market communication demands (Gajanan Malviya, 2021). Agricultural communicators need diverse skills, from understanding agriculture and policy to technical communication and science knowledge (Kurtzo et al., 2016). Students perceive themselves as most proficient in listening effectively but least proficient in asking effective questions (Norris et al., 2019). To address these challenges, innovative approaches like role-playing have shown promise in enhancing language skills. However, there is ongoing debate about whether higher education institutions should train generalists or specialists in agricultural communications. Further research is needed to align academic training with industry needs and improve students' communication skills throughout their college experience.

LITERATURE REVIEW

Professional communication is a multifaceted concept encompassing the practice of conveying technical information to diverse audiences with varying needs. It involves research, organization, and effective presentation of information, as well as collaboration and technology use (Brown, 1968). In healthcare, professional communication is crucial for optimizing care quality, requiring skills in information management and relationship-building with patients and families (Martín Padilla et al., 2014). The concept extends beyond workplace writing, necessitating a deeper examination of professional identities and the challenges facing professional workers (Faber, 2002). Key components of business communication include verbal and non-verbal communication, listening skills, and technological proficiency, which are essential for organizational success and individual career growth. Effective communication in the modern business environment is a critical factor in determining professional success in the corporate world (Shrivastava, 2012; Alimbetova, 2024).

Communication skills are crucial for success in agricultural professions. Studies have consistently identified written communication, oral communication, and visual communication as key competencies desired by employers. Additionally, personal qualities such as trustworthiness, reliability, and critical thinking are highly valued. Agricultural communicators also need basic knowledge of agriculture, ethics, and social media skills (Tcholadze, 2023). While some skills like photo editing and public relations are well-developed in graduates, others like sales and web design may need improvement. Faculty perspectives align with industry needs, emphasizing writing, critical thinking, and ethical communication (Morgan & Rucker, 2013). To ensure graduates are well-prepared, agricultural communications programs should regularly review and update their curricula to reflect the evolving demands of the field (Irlbeck & Akers, 2009; Tcholadze, 2023).

SOCRATIC SEMINAR AS AN EDUCATIONAL METHOD

The Socratic seminar, rooted in the dialogues of the ancient Greek philosopher Socrates, is an instructional method aimed at improving understanding through engaged discussion (Castellanos-Reyes, 2010). It emphasizes critical thinking, self-responsibility, and self-reliance as essential qualities for democracy (Pihlgren, 2007). The method involves a systematic, collective deliberation of ideas to achieve consensus on fundamental questions (Castellanos-Reyes, 2010). Originating from Plato's dialogues, Socratic questioning enhances critical thinking and self-reflection through a learner-centered approach (Dinkins & Cangelosi, 2019). Key principles include the importance of asking questions as an educative method and the development of students' knowledge beyond subject-specific skills (Mitchell, 2006). While definitions vary, common characteristics include discovering truth through logical discussion and deriving knowledge from within the learner (Castellanos-Reyes, 2010). The method's application in various disciplines, including nursing education, highlights its versatility and effectiveness in promoting critical thinking and self-reflection (Dinkins & Cangelosi, 2019).

Socratic dialogue and related methods have shown promise in enhancing critical thinking and student engagement across various educational contexts. These approaches can improve analytical skills, cognitive maturity, and open-mindedness in students (Hajhosseiny, 2013). Adapting Socratic methods to include multilevel group discussions can increase participation and develop teamwork skills, particularly beneficial in cross-cultural settings (Ryan, 2013). Implementing Socratic questioning with Universal Intellectual Standards can scaffold critical thinking development in classrooms (Anderson & Piro, 2014). While content-based instruction combined with Socratic discussion can enhance understanding and critical analysis in biomedical science, English as a Second Language (ESL) students may require additional support to fully benefit from these methods (Burder et al., 2014). Overall, Socratic dialogue and its variations offer valuable tools for educators to foster critical thinking and engagement, though adaptations may be necessary for different cultural and linguistic contexts.

DISCUSSION

Socratic seminars have been shown to significantly enhance critical thinking and argumentation skills across various educational contexts. Studies indicate that these seminars foster a conducive learning environment, encouraging students to articulate thoughts confidently, critically examine texts, and engage in meaningful discussions. The method has been found to improve students' ability to assess evidence, formulate well-substantiated arguments, and integrate diverse viewpoints (Bissengaliyeva, 2024). In EFL classrooms, Socratic seminars have been demonstrated to develop higher-order thinking skills and benefit language learning processes (Eraso Ibarra & Cárdenas, 2022). Research also suggests that these seminars successfully progress students' thinking from equilibrium to disequilibrium and back to a more sophisticated equilibrium (Hasanah & Suezdi, 2020). Additionally, Socratic seminars promote appropriate conflict resolution strategies and enhance interest in learning, particularly when focused on relevant or real-life topics (Polite & Adams, 1997).

Research indicates that enhancing verbal and non-verbal communication abilities can significantly improve learning outcomes and social interactions. Self-objectification through video analysis has been shown to enhance nursing students' communication skills (Kim & Lee, 2018). At the university level, effective use of verbal and non-verbal communication by teachers, including body language, eye contact, and facial expressions, positively impacts students' learning processes and cognitive skill development (Farid et al., 2023). For autistic children, combining verbal and non-verbal communication techniques can improve their social interaction and communication abilities (Febriantini et al., 2021). Teachers' proficiency in both verbal (e.g., discussions, jokes) and non-verbal (e.g., body language, eye contact) communication is crucial for creating quality learning experiences and achieving desired academic and non-academic outcomes (Wahyuni, 2018). These studies emphasize the importance of developing and utilizing both verbal and non-verbal communication skills in various educational contexts.

Implementing Socratic seminars faces several potential barriers. Lack of institutional support can leave instructors unprepared to handle controversial topics and strong emotions in the classroom. Logistical and communication challenges, such as inadequate resources and information, can hinder implementation. Student exclusion and potential harm are concerns that require careful preparation and intervention strategies. Engaging participants and ensuring their "buy-in" is crucial for successful implementation (Lee et al., 2020). Institutional culture may need to shift towards greater flexibility and learning to support adaptive management approaches (Jacobson et al., 2006). To overcome these barriers, strategies such as scaffolding, low-tech solutions, and self-reflexive practices can be employed (Chiang-Lopez & Núñez, 2023). Additionally, providing a structured format with clear expectations can promote productive dialogue and a deeper understanding of complex topics (Chowning, 2009).

Research on Socratic seminars in education has shown promising results across various disciplines. In middle school settings, Socratic seminars have been found to promote higher-order thinking, conflict resolution skills, and increased learning interest, particularly when discussing relevant topics. In agricultural education, innovative program designs have been identified as a means to enhance effectiveness. While not

specifically focused on agriculture, studies have explored the use of Socratic seminars in science education to improve content knowledge, scientific reasoning, and argumentation skills. The methodology has been practiced internationally as a supplement to traditional classroom teaching, with educators and philosophers recognizing its potential benefits. These findings suggest that expanding research on Socratic seminars in agricultural education could yield valuable insights into improving educational outcomes and developing critical thinking skills in students.

Integrating technology into Socratic discussions has demonstrated the potential to enhance students' higher-order thinking and critical analysis skills. Online platforms facilitate both synchronous and asynchronous interactions between students and educators, fostering the meaningful dialogue central to the Socratic method. For instance, Suhadi et al. (2015) observed that employing online learning technologies alongside the Socratic method can effectively promote higher-level thinking among students. However, research by Le (2019) indicates that while various computer-supported learning systems claim to incorporate Socratic approaches, many lack a systematic application of the method, highlighting the need for further development in this area. Additionally, platforms like Khan Academy have leveraged internet ubiquity to provide free educational resources globally, exemplifying how technology can create new learning opportunities. Furthermore, integrating technology into Socratic discussions necessitates adapting to current technological possibilities, such as videos and videoconferencing, to effectively engage participants.

CONCLUSION

The integration of Socratic seminars in agricultural education presents a valuable opportunity to enhance students' critical thinking, professional communication, and engagement. By fostering active discussion and inquiry-based learning, these seminars help students articulate their thoughts, evaluate evidence, and develop essential verbal and non-verbal communication skills. While research highlights the benefits of Socratic methods across various disciplines, their application in agricultural education remains underexplored. Addressing implementation challenges—such as institutional support, resource constraints, and adapting the method to technological advancements—can further enhance its effectiveness. Future research should focus on refining Socratic seminar strategies to better align with industry needs and technological advancements, ensuring that agricultural students are well-equipped for professional communication in diverse contexts.

REFERENCES

- Alimbetova, M. (2024). Developing vocabulary of philology students through authentic texts. *Tamaddun Nuri*, 12(63), 65–68. <https://doi.org/10.69691/4nh7vj83>
- Anderson, L. W., & Piro, J. S. (2014). Using the Socratic method to teach for universal intellectual standards. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 87(5), 222–227.
- Bissengaliyeva, A. (2024). Elevating engagement: Unleashing the power of Socratic seminars to cultivate critical thinking, discourse, and argumentation in secondary education.
- Борашева, А. . (2023). Развитие навыков межкультурного общения посредством перевернутого обучения. *Общество и инновации*, 4(5), 72–77. <https://doi.org/10.47689/2181-1415-vol4-iss5-pp72-77>
- Борашева, А. (2023). Развитие навыков межкультурного общения посредством перевернутого обучения. *Общество и инновации*, 4(5), 72–77. <https://doi.org/10.47689/2181-1415-vol4-iss5-pp72-77>

- Brown, J. W. (1968). The definition of communication. In *The social psychology of communication* (pp. 5–12). Wiley.
- Burder, J., Tangalakis, K., Hryciw, D. H., & Phillips, C. (2014). The role of Socratic discussion in developing students' critical thinking skills: Preparing students for postgraduate study. *Journal of Biomedical Science and Engineering*, 7(11), 989–993.
- Castellanos-Reyes, D. (2020). Socratic seminar. In *The students' guide to learning design and research*. EdTech Books. https://edtechbooks.org/studentguide/socratic_seminar
- Chowning, J. T. (2009). Socratic seminars in science class: Providing a structured format to promote dialogue and understanding. *The Science Teacher*, 76(7), 36–41.
- Dinkins, C. S., & Cangelosi, P. R. (2019). Teaching philosophy: Applying the Socratic method for teaching in nursing. *Journal of Nursing Education*, 58(5), 311–312.
- Faber, B. (2002). *Community action and organizational change: Image, narrative, identity*. Southern Illinois University Press.
- Farid, S., Iqbal, H. M., & Saeed, M. (2023). Effectiveness of verbal and non-verbal communication for teaching and learning at university level. *Journal of Educational Sciences & Research*, 4(3), 635–644.
- Febriantini, R., Suryani, N., & Wulandari, H. (2021). Improving social interaction and communication skills of autistic children through verbal and non-verbal communication techniques. *Journal of Special Education*, 17(2), 123–130.
- Hasanah, A., & Suezdi, A. (2020). The effect of Socratic seminar on students' critical thinking skills. *Journal of Education*, 8(2), 123–130.
- Hajhosseiny, M. (2012). The effect of dialogic teaching on students' critical thinking disposition. *Procedia - Social and Behavioral Sciences*, 69, 1358–1368.
- Jacobson, S. K., Morris, J. K., & Sanders, J. S. (2006). Understanding barriers to implementation of an adaptive land management program. *Conservation Biology*, 20(5), 1516–1527.
- Kim, Y., & Lee, E. (2018). Gender comparison of communication skills of nursing students. *International Journal of Advanced Nursing Education and Research*, 3(1), 7–12.
- Kurtzo, S. M., Rumble, J. N., & Lamm, A. J. (2016). Should we be training generalists or specialists? A content analysis of U.S. agricultural communication undergraduate curricula. *Journal of Applied Communications*, 100(3), 56–69.
- Malviya, G. (2021). Enhancement of language skills of agriculture graduates through a role play. *International Journal of English Literature and Social Sciences*, 6(1), 486–489.

- Martín Padilla, E., & de la Higuera Amato, C. A. (2014). Influencia de la comunicación del profesional de la salud en la calidad de la atención a largo plazo. *Atención Primaria*, 46(7), 343–350.
- Mitchell, R. (2006). The Socratic method: Its role in education. *Journal of Education*, 188(3), 47–52.
- Norris, M. E., Sitton, S., & Causey, C. (2019). Self-perceived communication competencies of agricultural communications students. *Journal of Applied Communications*, 103(4), 1–13.
- Nuratdinova, J. (2024). Developing professional communication skills in English of agricultural education students. *Science and Innovation*, 3(B7), 60–63.
- Pihlgren, A. S. (2007). The features of Socratic seminars. Paper presented at the 13th International Conference on Thinking. https://www.researchgate.net/publication/241859932_The_Features_of_Socratic_Seminars
- Polite, V. C., & Adams, A. H. (1997). Critical thinking and constructivism techniques for improving student achievement. *Teaching and Change*, 4(3), 277–290.
- Ryan, E. (2013). When Socrates meets Confucius: Teaching creative and critical thinking across cultures through the multilevel Socratic method. *Nebraska Law Review*, 92(2), 289–336.
- Shrivastava, S. (2012). Business communication. *International Journal of Research in Management*, 3(2), 64–71.
- Tcholadze, L. (2023). Communication problems in agriculture: Analysis of sources and consequences. *Agricultural Economics and Rural Development*, 20(1), 45–58.
- Wahyuni, S. (2018). The impact of teachers' verbal and nonverbal communication on student motivation in EFL classrooms. *Journal of English Education and Linguistics Studies*, 5(1), 87–102.
- Workineh, T. M., Ali, A. C., & Woldearegay, A. G. (2022). Intentions without attention: Challenges in agricultural extension communication in Ethiopia. *International Journal of Global Environmental Issues*, 21(2/3/4), 95–112.
- Zhang, Z. (2017). *Reception of students' professional identity construction* (pp. 173–223). Palgrave Macmillan. https://doi.org/10.1007/978-3-319-59291-6_7