

**Preparing the Next Generation of Agriculture and Natural Resources Professionals: Using  
Pre-Internship Reflective Practice Journals for NextGen NRCS Pros**

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### **Introduction**

Professional internships serve as a vital component of the collegiate experience for undergraduate students in agriculture and life sciences, fostering leadership and career readiness (Henderson et al., 2023; Stedman et al., 2006). By partnering with state and federal entities, universities and colleges of agriculture can expand access to resources to support students in completing professional internships (Ingles & Retallick, 2025; Stedman et al., 2006). Our team at Texas A&M University is the lead institution in the NextGen NRCS Pros program, funded by the Natural Resource Conservation Service (NRCS) and designed to integrate research, education, and extension experiences for undergraduate students to become the next generation of agriculture and natural resources professionals. Through this program, students from all agricultural majors within the Texas A&M University system have the opportunity to apply and participate in research and professional development sessions, followed by a 10-week paid summer internship and concluding with outreach activities at scientific and academic meetings.

To monitor students' learning and growth, student interns completed a reflective journal prior to beginning their summer internship. Reflective journal practices encourage students to critically assess their experiences, deepen their learning, and explore how the internship may shape their academic and professional journey (Arter et al., 2016; Biang et al., 2023). This study is part of the comprehensive evaluation plan of the NextGen NRCS Pros program and aimed at exploring how summer experiential internships contribute to agriculture and life sciences career readiness and leadership development. The reflective journal activity was guided by the question: How prepared are undergraduate students in agriculture and life sciences for research, education, and extension summer internships?

### **Theoretical Framework**

To guide the analysis of students' pre-internship reflective journal responses, we utilized Experiential Learning Theory (ELT) (Baker et al., 2012; Kolb, 1984). ELT states that learning is a process involving the acquisition of knowledge (learning) and relearning through experiences, which are reflected upon, adapted to real-world situations, and continually reinforced (Baker et al., 2012; Kolb, 1984). Baker et al. (2012) established that ELT closely aligns with foundational aspects of agricultural education but found that "agricultural educators must be present and purposeful when providing experiences for students" (p. 1). Armed with intentional experiences, students must also have periods of reflection to deepen their understanding and gather meaning from opportunities like internships (Baker et al. 2012). The principles of ELT in agricultural education are cohesive with the NextGen NRCS Pros and provides a sound theoretical framework for this study.

### **Methodology**

To analyze students' pre-internship reflective journals, we employed a qualitative content analysis (QCA) (Schilling, 2006). QCA is a systematic process of reviewing communication texts and is defined by Mayring (2000, as cited in Schilling, 2006) as "an approach of empirical, methodological controlled analysis of texts within their context of communication, following content

analytic rules and step by step models, without rash quantification” (p. 28). Key steps researchers utilized to conduct our content analysis included first retrieving and anonymizing journal responses from students completed using a Qualtrics form. Next, following Schilling’s (2006) steps two and three, researchers thoroughly reviewed the data/student responses to create a category system and thematic protocol. Using these protocols, we interpreted the resulting themes.

### Results

In the 2025 cohort of the NextGen NRCS Pros, there were a total of 17 students, but only 16 completed the pre-internship reflective journal. Upon following the methodological procedures of qualitative content analysis (Shilling, 2006), four main themes emerged from students' pre-internship reflective journal entries: *eager to start*, *initial apprehension*, *personal skill development*, and *career-driven content exploration*. First, *eager to start* describes students' excitement in beginning their internships. Eagerness was expressed in the opportunity of traveling, interacting with new coworkers, exploring nature, and more. *Initial apprehension* describes the nervousness and anxiety students feel beginning their internship. This apprehension was conveyed in students saying, “I’m a bit nervous just because it’s new to me,” or “I do have some concerns about adjusting...” Next, *personal skill development* was keenly mentioned by participants, who were excited to build on their communication, collaboration, and professional skills relevant to their roles. For example, one student described, “I hope the internship encourages open communication and collaboration so I can develop the skills necessary to exceed in my future career.” Finally, students were enthusiastic about their internships providing them with *career-driven content exploration* and highlighted their interest in “getting hands on experience in a field I would possibly like to pursue long term.”

### Conclusions & Implications

In directing internship programs for students, our findings indicate how important is for interns to have an expressive space like a reflective journal to detail their emotions like eagerness, excitement, and even apprehension when beginning a new role (Henderson et al., 2023). Further, findings highlighted the importance of ensuring students play a role in coordinating their internships so that they are employed in an area of their specific interest. Whether they are interning with soil and plant science labs, veterinary centers, national wildlife refuge sites, or traveling abroad to work with foreign affairs in public health and agriculture, it is important to foster self-motivation relevant to career development in students (Stedman et al., 2006).

Our team underscores the value of intentional internships, which provide students with the opportunity to reflect on their experiences at pre-, mid-, and post-intervals. Through meaningful internship programming, we empower students to engage in their own experiential learning processes, including reflection, relearning, and growth in their knowledge and contribution to the world and workforce around them. One student summarized this by reflecting, “Through the NextGen NRCS Pros program, I’ve developed strong foundational skills, such as time management, communication, and basic technical or subject-specific knowledge, which I believe are crucial for success in a professional environment.” This research study should encourage agricultural educators and mentors to promote reflective journal practices during student internships, practicums, student teaching experiences, and other similar settings, as this practice has proven to be insightful in providing students with valuable learning outcomes.

## References

- Arter, M. L., Wallace, L. N., & Shaffer, T. L. (2016). The use of reflective journals to stimulate critical thinking in the academic internship. *Journal of Criminal Justice Education*, 27(1), 140–156. <https://doi.org/10.1080/10511253.2015.1109132>
- Baker, M. A., Robinson, J. S., & Kolb, D. A. (2012). Aligning Kolb's experiential learning theory with a comprehensive agricultural education model. *Journal of Agricultural Education*, 53(4), 1–16. <https://doi.org/10.5032/jae.2012.04001>
- Biang, J. H., Brooks, S. O., Herles, C. M., Borrón, A. S., Berle, D. C., & Thompson, J. J. (2023). Understanding the impacts of intensive student internships at a campus agricultural project. *Natural Sciences Education*, 52(2). <https://doi.org/10.1002/nse2.20126>
- Henderson, T. M., Stevenson, T. J., & Stewart, J. (2023). Exploring student reflections towards an agricultural internship. *NACTA Journal*, 63, 89-98. <https://files.eric.ed.gov/fulltext/EJ1450352.pdf>
- Ingles, D. M., & Retallick, M. S. (2025). Reflective practice in an experiential learning program: An exploratory content analysis of reflective writing in experiential learning portfolios. *Journal of Agricultural Education*, 66(2). <https://doi.org/10.5032/jae.v66i2.3029>
- Kolb, D. (1984) *Experiential learning: experience as the source of learning and development*. Prentice Hall. <http://www.learningfromexperience.com/images/uploads/process-of-experiential-learning.pdf>
- Schilling, J. (2006). On the pragmatics of qualitative assessment: Designing the process for content analysis. *European Journal of Psychological Assessment*, 22(1), 28–37. <https://doi.org/10.1027/1015-5759.22.1.28>
- Stedman, N. P., Rutherford, T. A., & Roberts, T. G. (2006, May 15-17). The role of critiqued reflection in improving the perceived leadership competencies of undergraduates during a ten-week professional internship. [Paper presentation]. *American Association for Agricultural Education Annual Research Conference*, Charlotte, NC, USA.