



Preceptorship: Creating an Educational Framework for Histotechnology

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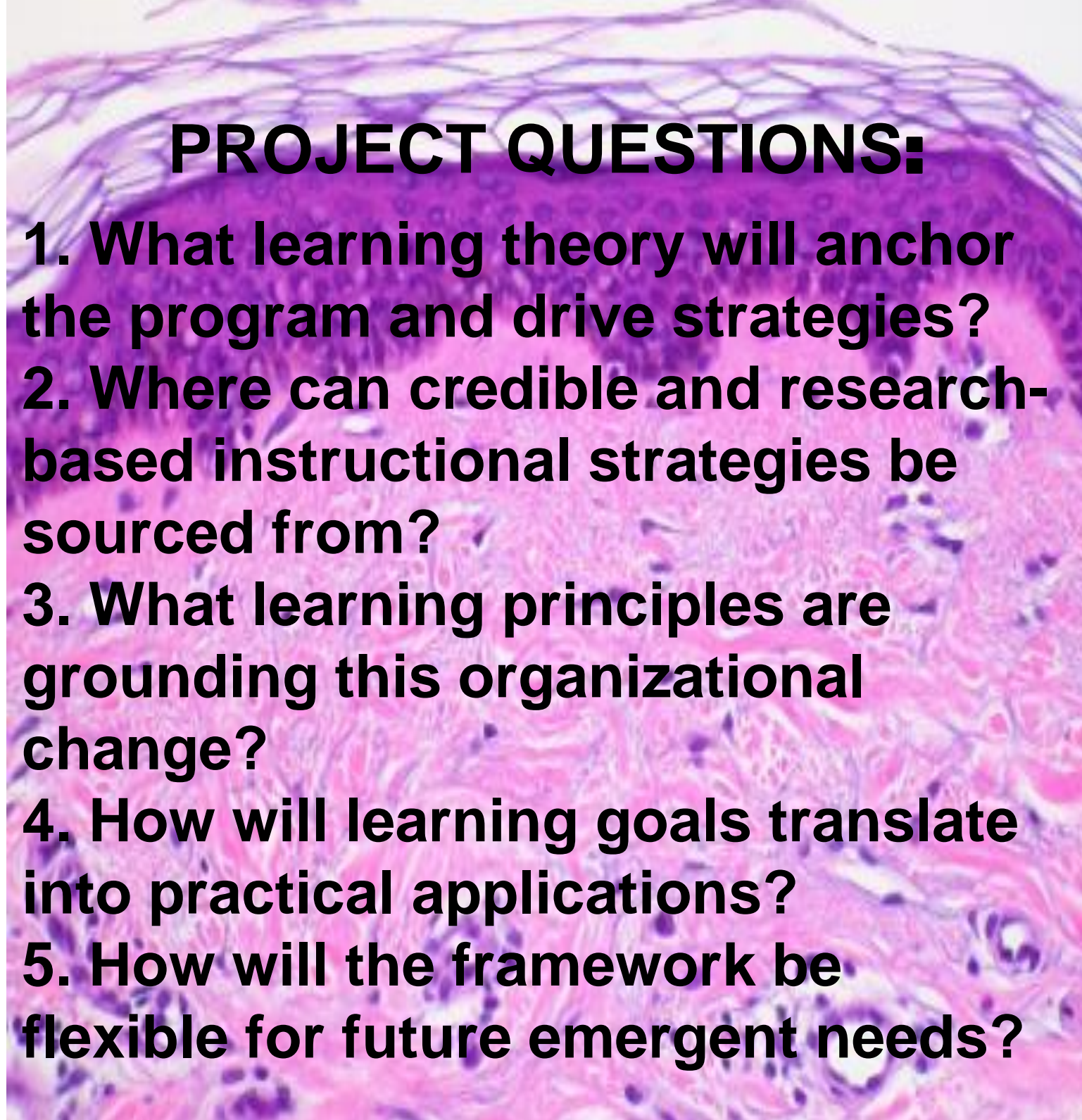
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ABSTRACT

Preceptorship: Creating an Educational Framework for Histotechnology

Issue and Rationale:
Every summer, the Research Histology Core Lab hosts Histotechnology (HTL) student interns from the MDACC School of Health Professions. Although the program makes positive impacts on students, after critical observation, the existing preceptorship was found to be lacking a structured and grounded educational framework. The solidity of this preceptorship program is of great importance as interns are in their final site rotation before entering the workforce as board-certified professionals. Improvement efforts to create a framework, from the ground up, went underway in spring 2021.

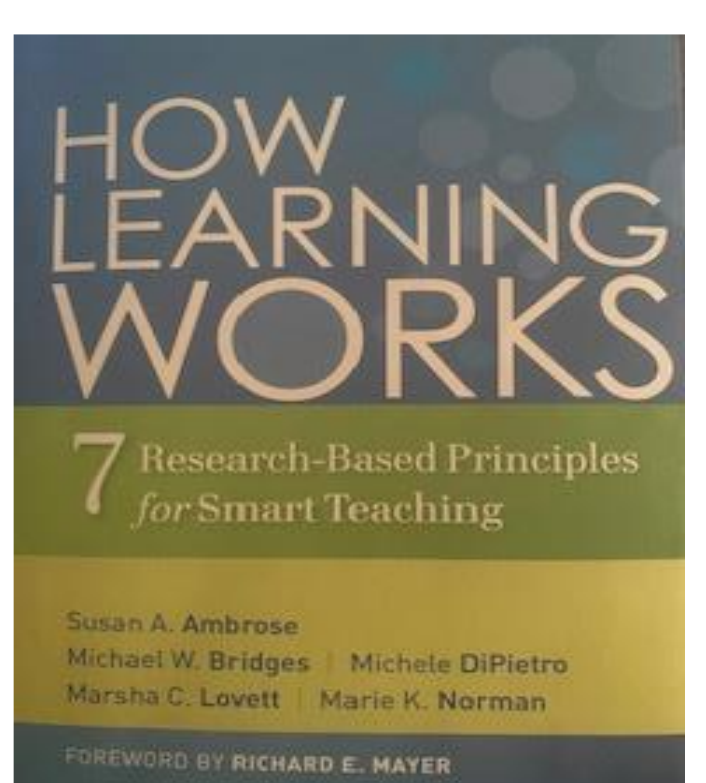
Objective:
Overarching objective: *create a comprehensive, research-based framework.* Also, focus questions were posed to help frame the constructs of the project. A few are shown below.



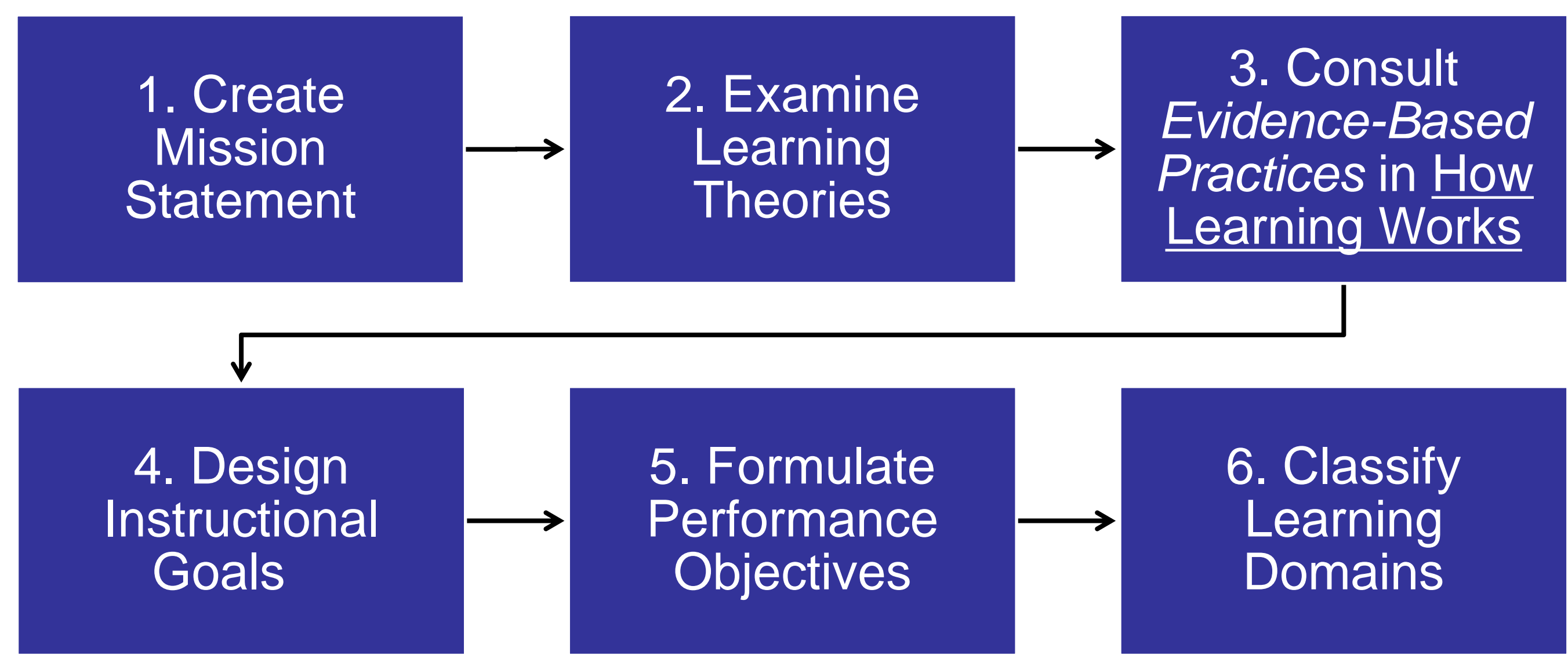
PROJECT QUESTIONS:

1. What learning theory will anchor the program and drive strategies?
2. Where can credible and research-based instructional strategies be sourced from?
3. What learning principles are grounding this organizational change?
4. How will learning goals translate into practical applications?
5. How will the framework be flexible for future emergent needs?

RESOURCES

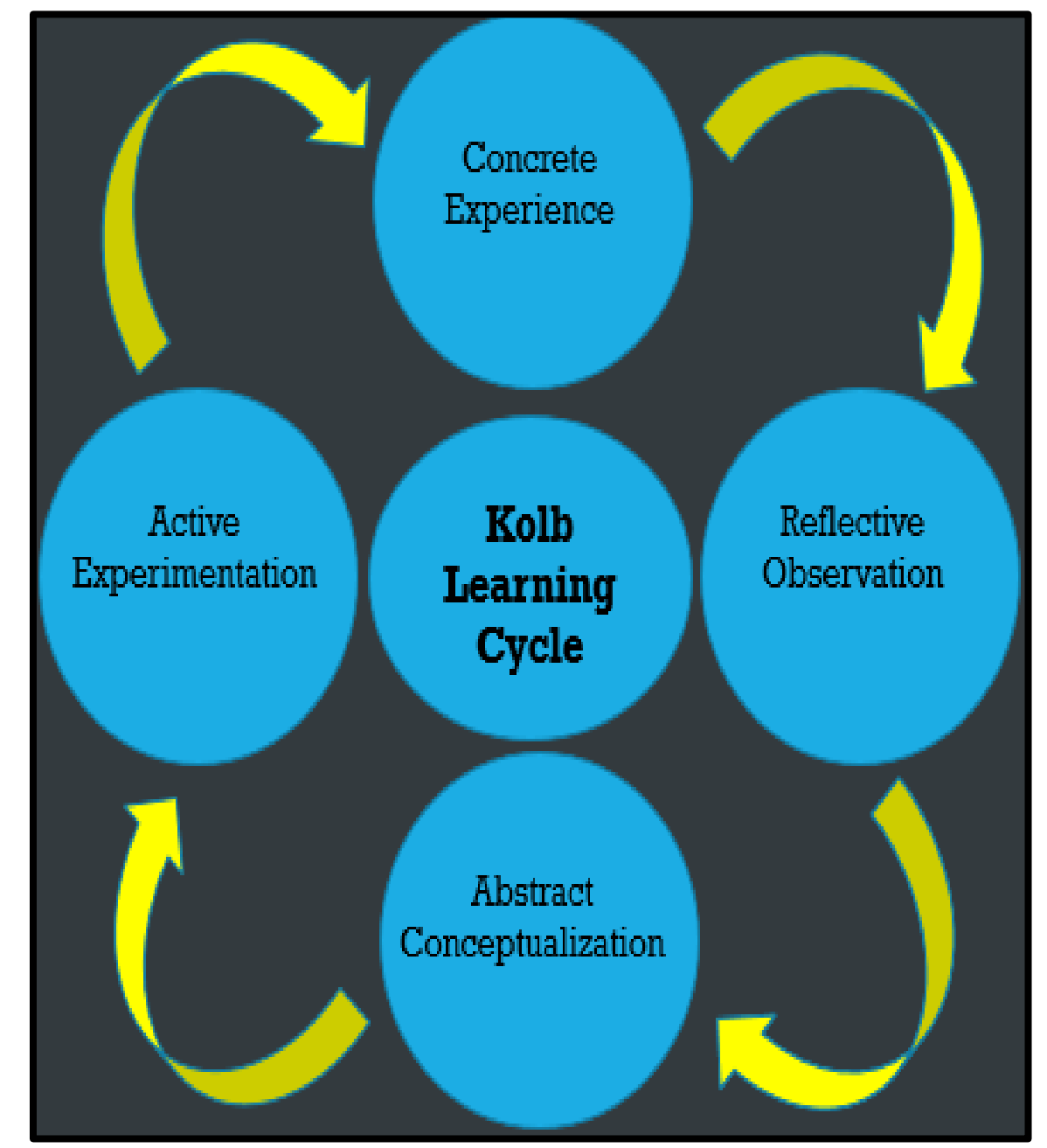


METHODOLOGY



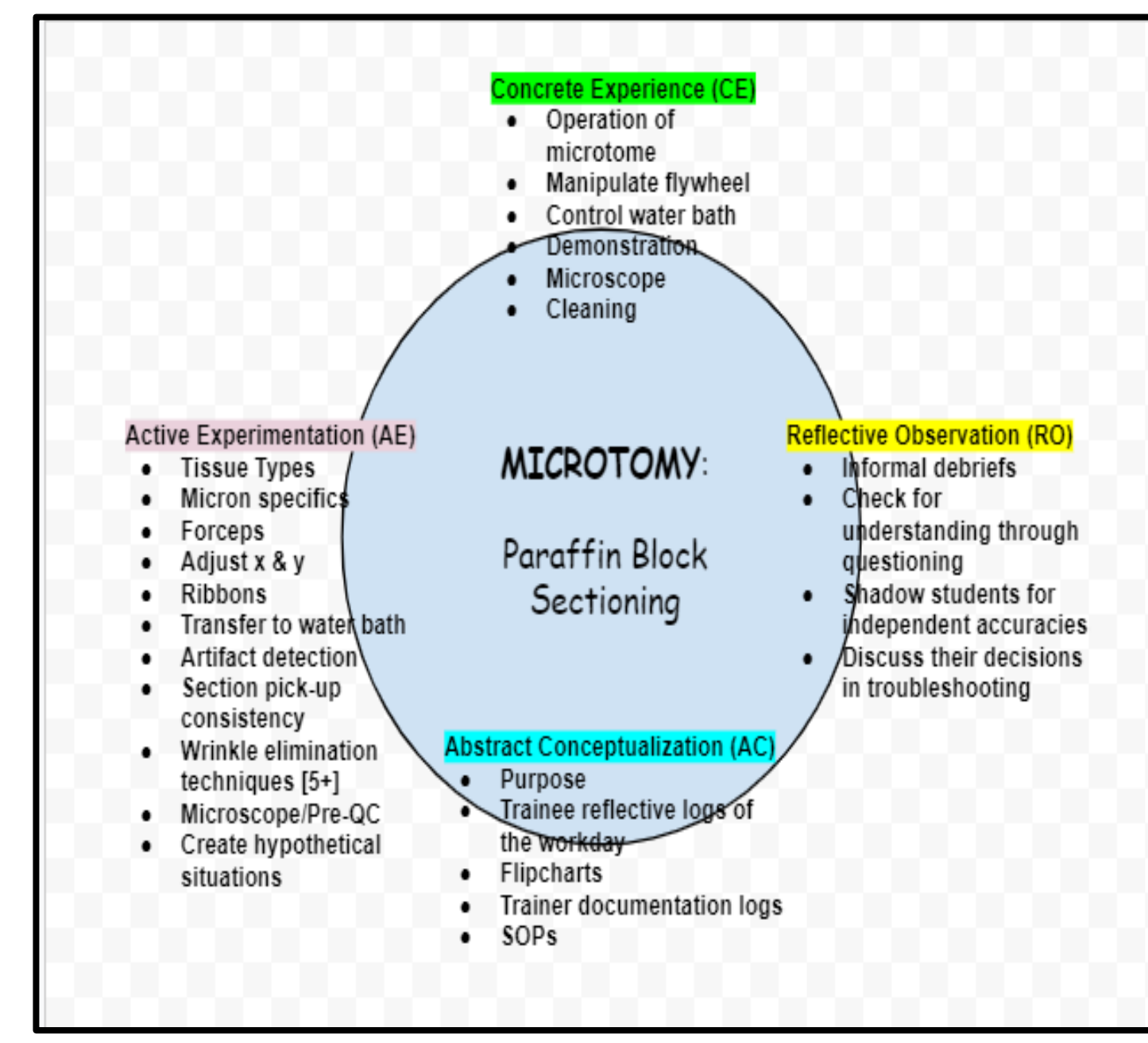
To start, a mission statement was created to stand as a pillar of the program. Next, learning theories were researched in order to determine the most applicable to the competencies of Histotechnology and the types of situations that are readily encountered. Successively, the construction of content mapping was done through the design of instructional goals, learning objectives, and classification of learning domains. Research-based practices were sourced from *How Learning Works: Seven Research-Based Principles for Smart Teaching* (Ambrose et al., 2010) and schemed according to the Kolb Learning Cycle.

Adapted from Educational Theorist David A. Kolb's Learning Cycle for experiential learning



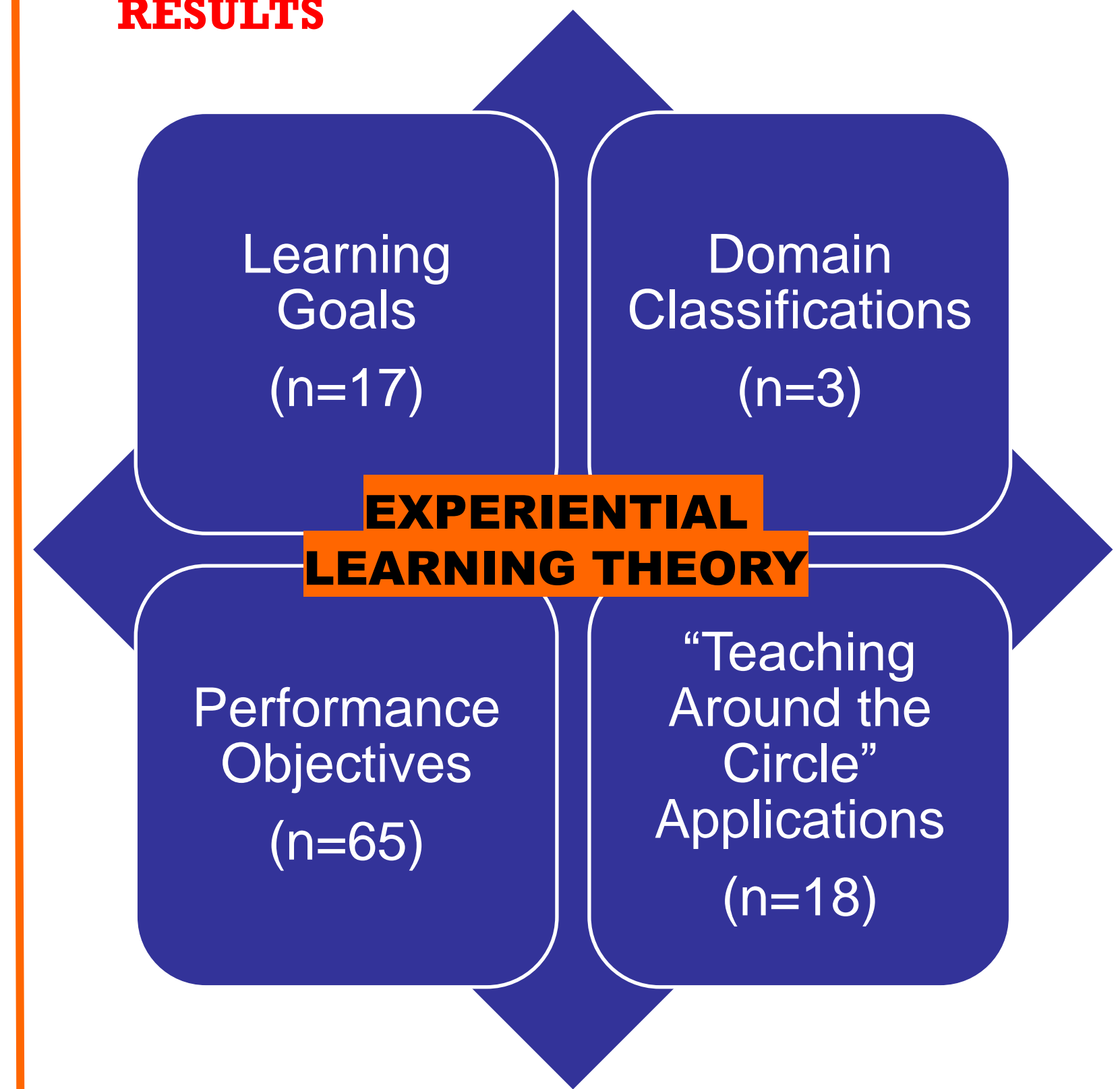
Evidence-Based Model

Example of created "Teaching Around the Circle"



Teaching Strategy for a Discrete Skill

RESULTS



The Experiential Learning Theory was adopted as the core of the program's educational operations. It will anchor a four-phased, cyclical approach rooted in harnessing learning experiences. Outputs of instructional design yielded: seventeen instructional goals, approximately sixty-five performance objectives, and three domain classifications. Furthermore, eighteen "teaching around the circle" diagrams were created to intentionally incorporate active learning, metacognition, reflection, and feedback mechanisms.

CONCLUSION

The existing preceptorship has been retooled into a comprehensive program. A structured framework is now established for instructing, coaching, collaborating and mentoring. It has been built to accommodate learner needs, flex with emerging situations, and advance over time.

REFERENCES

1. Photos and images taken by author Jennifer Sells.
2. Ambrose, S.A., Bridges, M.W., DiPietro, M., Lovett, M.C. and Norman, M.K. (2010) *How Learning Works: 7 Research-Based Principles for Smart Teaching*. San Francisco: Jossey Bass.