**Appendix A**

**The Biology Teaching Assistant Role Identity Questionnaire**

I am surveying graduate teaching assistants about their professional role identity in relation to the biology course they are currently teaching.

Please consider the following definitions based on Auchincloss et al. (2014):

*Course-Based Undergraduate Research Experience (CUREs)*: CUREs are whole-class research experiences for undergraduates in which students address a research question that is interesting to the scientific community. There are five dimensions of CURES: use of scientific practices, discover, iteration, collaboration, and relevance, and it is the integration of these five that makes CUREs unique.

*Traditional labs:* Traditional labs are those in which the problems and methods are outlined by the instructor and there is a clear outcome to be found. Traditional labs typically have step-by-step instructions that lead students to the intended outcome. Traditional labs are limited in the five principles outlined previously, and the dimensions are not integrated.

Please take a moment to tell me a little about yourself.

Institution type (For Carnegie Classification Definitions go to carnegieclassifications.iu.edu/classification\_descriptions/basic.php. For the Definitions of Tribal Colleges and HBI/HBCU go to http://www2.ed.gov/about/offices/list/ocr/docs/hq9511.html.

(Please check all that apply):

Doctoral Research Intensive Universities

Masters Colleges and Universities

Baccalaureate Colleges

Baccalaureate/Associate’s Colleges

Associate’s Colleges

Special Focus Institutions

Tribal Colleges

HBI/HBCU

Other

Degree sought (Choose one):

Undergraduate

M.S.

Ph.D.

None

Year in your

program: 1 2 3 4 5+ N/A

Current teaching

assignment: CURE (Course Based non-CURE (traditional labs)

 Undergraduate Research

 Experience)

Describe in a few sentences the labs you teach:

Gender:

Male

Female

Prefer not to answer

*Role Definitions\**

Teacher

A graduate student helping undergraduates with their learning of biology, with purpose, thought, and reflection.

Researcher

A graduate student who engages in the process of science, including, but not exclusive to, using scientific practices, participating in discovery, asking relevant questions, collaborating with others, and revising and repeating their work.

Mentor

A graduate student who shares their expertise and experiences with their undergraduate students to help develop those students’ skills and self-efficacy.

\*For multiple page questionnaires, it is helpful to place these role definitions prior to each section

**Thank you for your participation!**

**Reference**

Auchincloss, L. C., Laursen, S. L., Branchaw, J. L., Eagan, K., Graham, M., Hanauer, D. I., Lawrie, G., McLinn, C. M., Pelaez, N., Rowland, S., Towns, M., Trautmann, N. M., Varma-Nelson, P., Weston, T. J., &Dolan, E. L. (2014). Assessment of course-based undergraduate research experiences: A meeting report*. CBE—Life Sciences Education*, *13*, 29–40. <https://doi.org/10.1187/cbe.14-01-0004>

For each of the items below, please fill in the circle according to how often you complete the statement **while considering your current teaching assignment**.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Never | Rarely | Sometimes | VeryOften | Always |
| I view myself as a teacher |  |  |  |  |  |
| I feel that my fellow TAs see me as a teacher. |  |  |  |  |  |
| I feel that my students see me as a teacher. |  |  |  |  |  |
| My responsibility this semester is to teach. |  |  |  |  |  |
| I design student assessments (quizzes, assignments, etc.) on the learning outcomes for the course. |  |  |  |  |  |
| I follow higher education pedagogical recommendations in my teaching practice. |  |  |  |  |  |
| I reflect on the diversity of students in my classroom. |  |  |  |  |  |
| I use multiple teaching methods to ensure all my students have the opportunity to learn. |  |  |  |  |  |
| I assess my own teaching. |  |  |  |  |  |
| I make modifications of my teaching based on personal reflections. |  |  |  |  |  |
| I have incorporated the educational standards for Biology into my teaching practice. |  |  |  |  |  |
| I use evidence-based teaching practices. |  |  |  |  |  |
| I set and communicate expectations with my students. |  |  |  |  |  |
| I bring disciplinary knowledge into the classroom. |  |  |  |  |  |

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| For each of the items below, please fill in the circle according to how often you complete the statement **while considering your current teaching assignment**. |
| Item | Never | Rarely | Sometimes | VeryOften | Always |
| I view myself as a researcher. |  |  |  |  |  |
| I feel that my fellow TAs see me as a researcher. |  |  |  |  |  |
| I feel that my students see me as a researcher. |  |  |  |  |  |
| My responsibility this semester is to conduct research. |  |  |  |  |  |
| I help my students deal with unexpected outcomes of scientific experiments. |  |  |  |  |  |
| I help my students to conduct authentic research. |  |  |  |  |  |
| I use evidence-based reasoning to draw conclusions about my students’ experiments. |  |  |  |  |  |
| The group work in the classroom mimics scientists working together to tackle problems. |  |  |  |  |  |
| The outcome of the laboratory investigation is unknown to both my students and myself. |  |  |  |  |  |
| My students and I discuss appropriate methods for the experiments they conduct. |  |  |  |  |  |
| In the classroom, I engage in the use of scientific practice with my students. |  |  |  |  |  |
| My students accumulate evidence for their research questions through diverse methods. |  |  |  |  |  |
| I help my students trouble-shoot problems with their experiments. |  |  |  |  |  |
| My students repeat their experiments, illustrating to them part of the scientific process. |  |  |  |  |  |

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| --- |
| For each of the items below, please fill in the circle according to how often you complete the statement **while considering your current teaching assignment**. |
| Item | Never | Rarely | Sometimes | VeryOften | Always |
| I view myself as a mentor. |  |  |  |  |  |
| I feel that my fellow TAs see me as a mentor. |  |  |  |  |  |
| I feel that my students see me as their mentor. |  |  |  |  |  |
| My responsibility this semester is to mentor my undergraduate students. |  |  |  |  |  |
| I have enduring personal relationships with the students in my class. |  |  |  |  |  |
| My research background enriches my students’ experience in the lab. |  |  |  |  |  |
| I provide direct career and professional development to my students. |  |  |  |  |  |
| Fostering student growth requires my direct involvement. |  |  |  |  |  |
| I provide direct emotional and psychological support to my students. |  |  |  |  |  |
| I saw positive personal outcomes in my students as a result of our interactions.  |  |  |  |  |  |
| I provide my students with a environment for self-exploration and personal growth. |  |  |  |  |  |
| I believe I make a difference in my students’ lives. |  |  |  |  |  |
| At the end of the semester, my students were transformed in their own identities as researchers, as a result of our interactions. |  |  |  |  |  |
| I am a role model for my students. |  |  |  |  |  |