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Using a Train-the-Trainer Model and Active Learning to Reach Biology Freshmen

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Introduction

As demand for information literacy instruction grows, librarians must find ways of expanding their programs despite time and staffing deficiencies. At the University of Kentucky, we accomplished this by using the Train-the-Trainer model to train Biology Teaching Assistants (TAs) to teach our information literacy content. The Train-the-Trainer model, in which experts train non-experts how to teach specialized topics, has been a staple in fields such as education, healthcare, and the military.

The Challenge

With no existing information literacy program, the Biology Department was recognized as an underserved population. However, we lacked the time and staff to use a traditional approach. Also, the course coordinator had reservations about introducing additional instructors into the labs. After exploring several options, our desire to create a program which addressed these issues led us to the Train-the-Trainer model.

Course Details

BIO 155 is the introductory laboratory course required for all Biology majors at the University of Kentucky. It is taught by Biology TAs, each of whom is responsible for two or more sections.

We targeted BIO 155 in particular because it presents the opportunity to:
1) Work with students in an interactive environment
2) Reach students early in their academic careers (500-750 per semester)
3) Reach students at the point of need

Obtaining Faculty Buy-in

Faculty buy-in is essential for any successful information literacy program, but especially so with the Train-the-Trainer model because it takes away from both class time and TA training time. We believe we were successful in obtaining the course coordinator's approval because:

1) We came in with a clear set of objectives
2) We understood the needs of the class
3) We were willing to collaborate and compromise

Implementing the Model

For the training sessions during the first semester, we showed the PowerPoint presentations and worksheets to TAs, then modeled in class the first of each of their sections. The TAs then conducted the instruction for the second of their sections.

1 Introduce Content → **2** Model First Session → **3** Assist TA Second Session
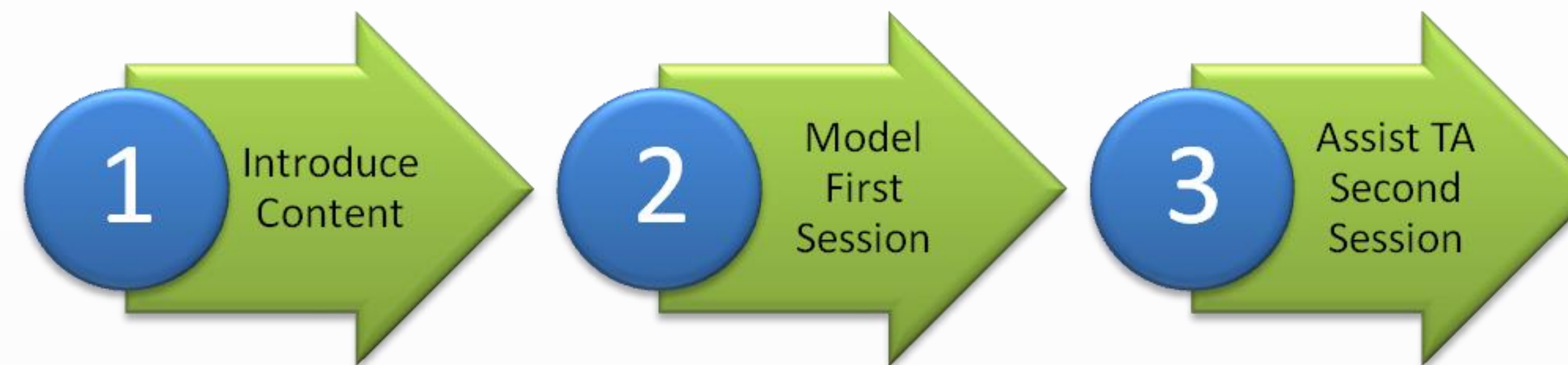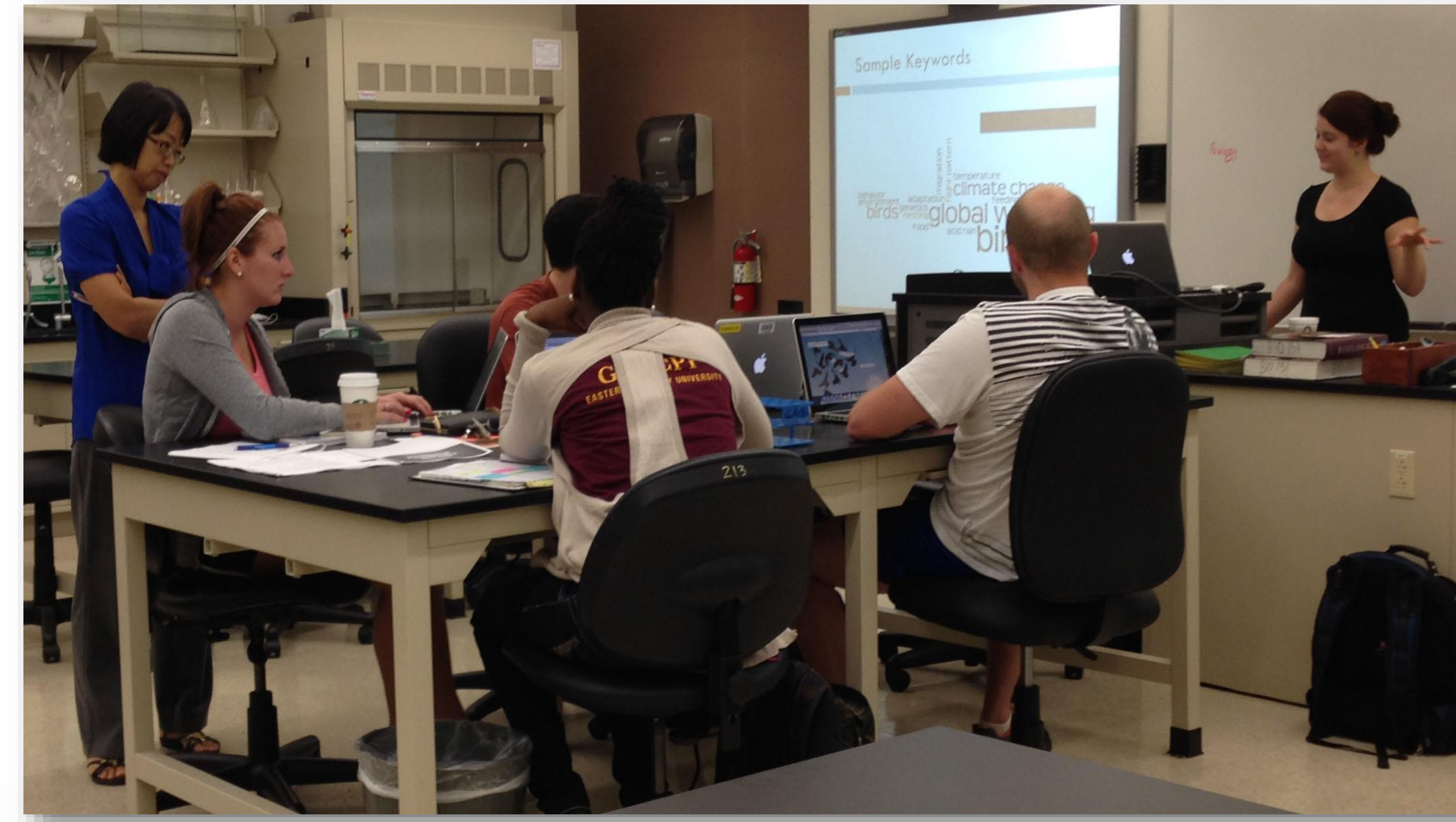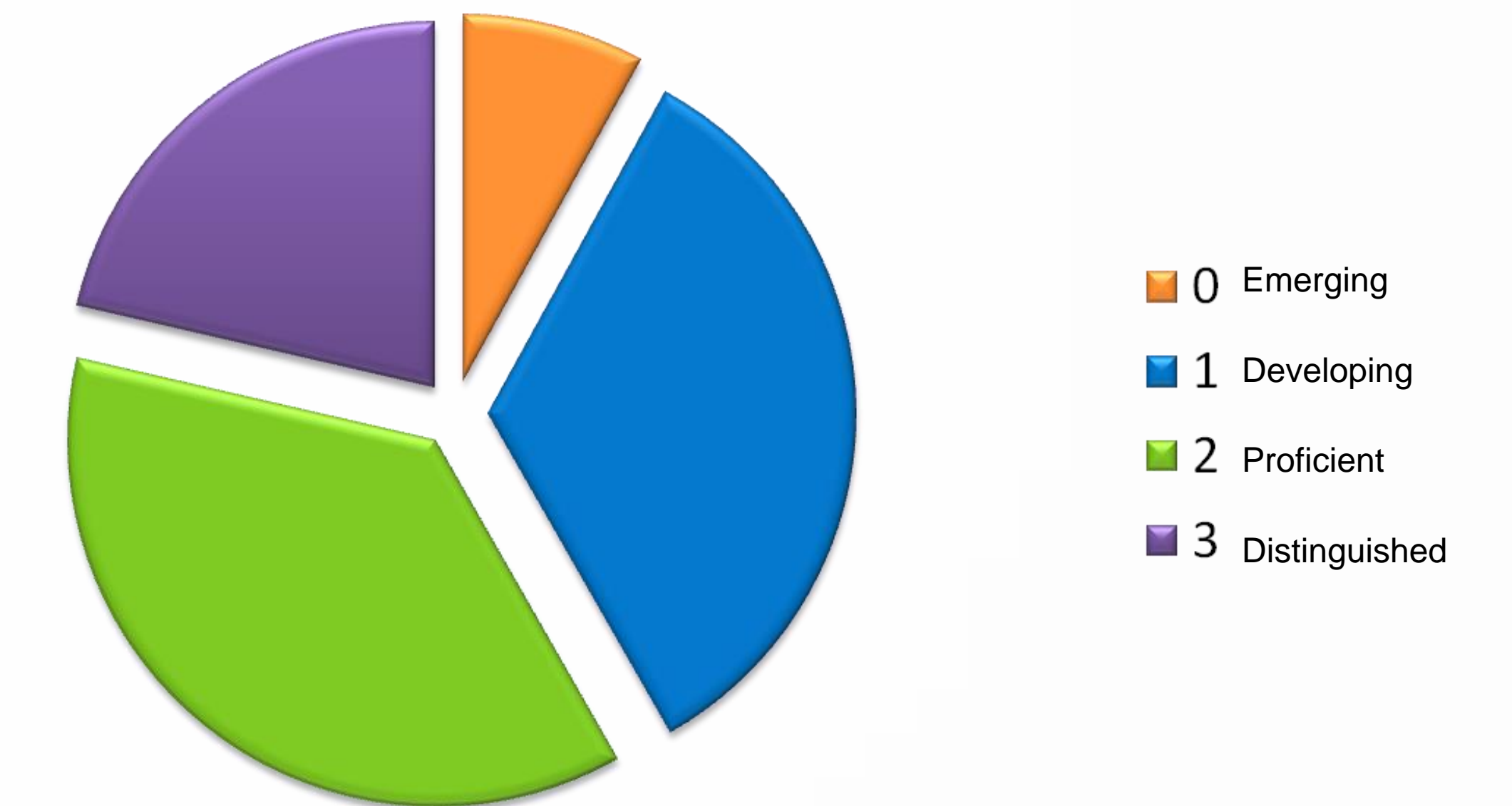
For the training sessions during subsequent semesters, we created an active learning environment. We presented the material to the TAs as it was to be presented to the BIO 155 students. Additionally, we omitted the in-class modeling component. The TAs presented the material in both sections, and we assisted as necessary.

1 Introduce Content via Active Learning → **2** Assist TA with Sessions as Needed
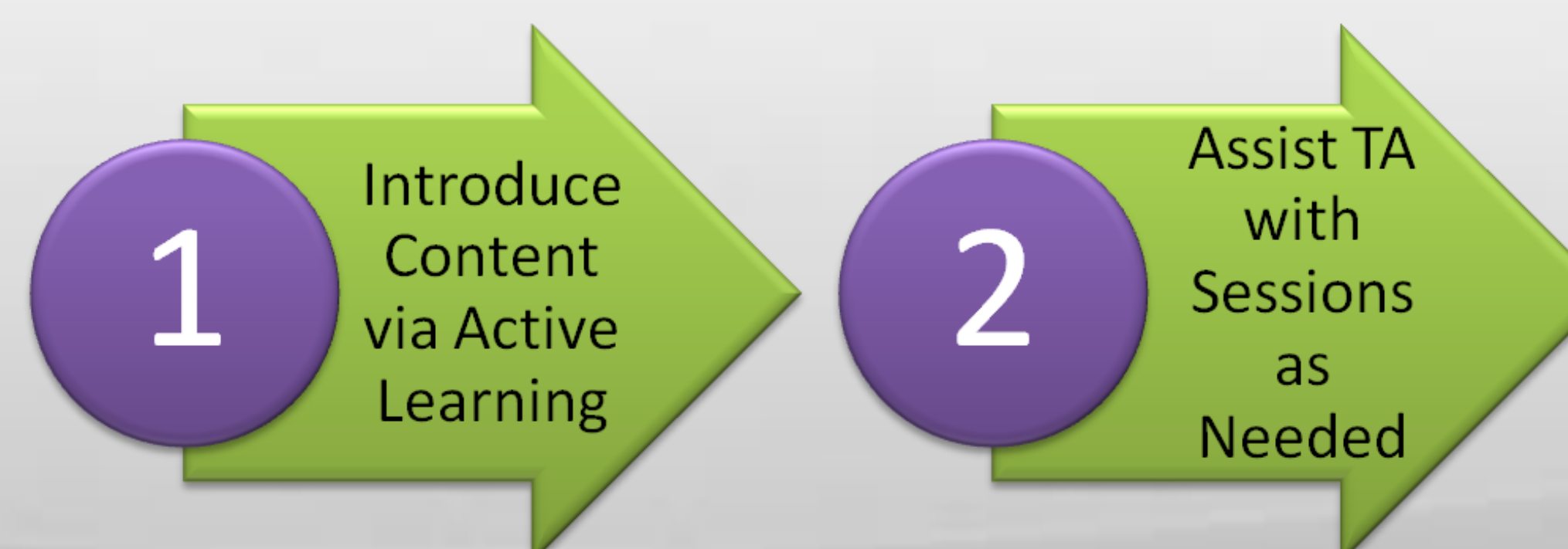
Assessment

Spring 2014 Assessment

- 0 Emerging
- 1 Developing
- 2 Proficient
- 3 Distinguished

We used UK Libraries' rubric with normed paired scoring to assess student artifacts on UK Information Literacy Learning Outcome 2:

Students will be able to construct an effective research strategy in order to identify a variety of relevant information sources.

What We Learned

Benefits of the Model
- Effective way to create a collaborative information literacy program
- Reach >500 students each semester
- Broaden audience (students *and* trainers)

Active Learning Techniques in Training
- Better understanding of the material
- Better understanding of student needs

Things to Bear in Mind
- Scheduling can be a challenge
- Approach faculty with specific ideas
- Be open to compromise
- Trainers will have different levels of comfort and understanding of material, may require additional training

Acknowledgments

We would like to thank Dr. Lin Xiang, the course coordinator for BIO 155, as well as the BIO 155 Teaching Assistants, whose participation was essential to the program's success.