Designing Graduate Teaching Assistants Training Programs

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Designing Graduate Teaching Assistants Training Programs

Dr. Bridget Melton
Dr. Yasar Bodur
The purpose was to identify and observe changes in GTA’s teaching self-efficacy at different points before and during their GTA experience.

Long-term purpose of the study is to inform the GTA training planning to offer more effective GTA training.
What is self-efficacy?

- Self-efficacy defined: People’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances (Bandura, 1986, p. 391).

- Simply put: Conviction that one can successfully implement the behavior required for producing desired outcomes (Bandura, 1997).
Self-efficacy is a domain specific judgment (e.g. I am not good at math, I am a good swimmer, etc) unlike self-worth, or self-concept.

- In other words: One can have high self-efficacy in writing and low self-efficacy in basketball.
Influences on self-efficacy appraisals?

- Actual performance:
  - As one repeatedly succeeds in math exams, his/her sense of self-efficacy in math increases.

- Vicarious experiences:
  - John is not any smarter than me and he passed the physics exam, so I can do it too.

- Verbal persuasion:
  - Pep talk, or encouragement leads to greater sense of self-efficacy.

- Physiological cues:
  - Get a headache whenever I study for my English Literature class.
Teacher Self–Efficacy, or Teacher–Efficacy

- Greater teacher self–efficacy produces more persistence and effort which in turn result in greater performance.
- Research shows a relationship between teacher self–efficacy and student performance
  - the higher the self–efficacy of the teacher, the more successful his/her students were
Background of Study

The GTA Conundrum

- Varied background
  - Undergraduate degree might not be in the same field as their grad program
- Little or no teaching experience
- Brief training period that needs to cover a lot of information!
- Commonly we focus on administrative issues
Participants

- **Background**
  - 14 GTA from Health and Kinesiology Dept.
    - 8 Males
    - 6 Females
  - **Teaching Background**
    - 3 Educational undergraduates
    - 5 Coaching experience
  - **Teaching Assignments**
    - 2 Anatomy and Physiology Lab
    - 4 Healthful Living classes
    - 8 Physical Education course
The Training Program

- Three components:
  - Orientation
  - Administrative requirements
  - Pedagogical training

Training Set up
- 4 days (4–8 hours per day) the week before classes
- Returning GTAs helped and run the training program
Orientation

- Campus
  - Building
  - Office
  - Supplies/support departments

- Community
  - Housing
  - Directions around town and campus
Administrative

- In-processing – university hiring process
  - Graduate administration
  - Human Resources – employee # and pay
  - Information Technology Department – email
  - Register’s training for record keeping – WINGS
  - Student privacy act – FERPA training
  - Course Learning Management System – Blackboard

- Schedule and Assignment of classes

- Record keeping for the department
  - First day of attendance
  - Attendance
  - Midterm grades
  - Final grades
Pedagogical Training

- Course Design
  - Syllabi, Course Unit Plan, Lessons plan, books
    - Learning Management system [LMS] – Blackboard

- Pedagogy
  - Active Learning, Skill Progression
    - Demonstration teaching, Practice Teaching

- Assessments
  - Content, skills, and personal growth
    - LMS, example skills test, affective reflections

- Classroom Management
  - Motivation, disruptions,
    - Scenarios, first day protocol
Data Collection

- Data were collected in two ways:
  - Multiple administrations of Physical Education Teacher Efficacy Survey (Gurvitch & Metzler, 2009)
    - Before the GTA training, after the GTA training, after the teaching experience
  - A focus group interview conducted after the GTA training
    - Conducted by the second researcher
    - In a classroom with 7 GTAs who volunteered.
    - Video and audio-taped
Data Analysis

- Physical Education Teacher Efficacy Survey results were entered to SPSS 17.0.
- First descriptive statistics on different administrations of the survey.
- Then, mean comparison (t-test for paired samples)
- Due to small sample size, we double-checked the results of the t-tests by running Nonparametric tests, specifically Wilcoxon Signed-Rank test.
Data Analysis Continued...

- Focus group interview
  - Qualitative analysis
  - Patterns and themes were identified through coding.
  - The second researcher’s analysis was debriefed by the first researcher to reach intersubjectivity.
## Survey results (1–5)

<table>
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<th>Administration</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before training</td>
<td>14</td>
<td>3.51</td>
<td>.33</td>
<td>3.00</td>
<td>4.06</td>
</tr>
<tr>
<td>After training</td>
<td>14</td>
<td>3.57</td>
<td>.32</td>
<td>3.06</td>
<td>4.38</td>
</tr>
<tr>
<td>After teaching</td>
<td>11</td>
<td>3.47</td>
<td>.29</td>
<td>2.88</td>
<td>3.81</td>
</tr>
</tbody>
</table>
We were interested in comparing the mean difference between “pre-training and post-training”

\[ t(13) = -1.447, \ p=0.172 \text{ (no significant dif)} \]

We were also interested in the mean difference between post-training and post-teaching

\[ t(10) = 1.87, \ p=0.090 \text{ (no significant dif)} \]

Wilcoxon tests confirmed these findings.
Focus Group Interview

Patterns observed:

- Concerns readiness to teach.
- Confidence in the content skills.
- Seeing people who will go through a similar experience helped (Vicarious experience)
- Being paired up with someone who went through the same experienced helped
- Pedagogical training was not sufficient. What was offered was helpful but insufficient.
- Procedural (administrative) concerns overshadowed teaching concerns during training
I think the only good thing about teaching lessons was the teach off.

First of all for those that have no education background, you know, what the heck is a unit plan? What the heck is a lesson plan? What the heck is the difference between the two? What do we need to include in these items?

They told you...you need to take care of it, be tough on the first day but no one wants to cross the line. So tell us what being tough on the first day really is like. What does that mean, you know? Um...
I’ve taught like junior golf and everything but it’s like...you know there would be like 10 kids there and I have like 26 kids in everyone of my classes. How am I supposed to keep my eye on 26 kids swinging golf clubs?

So the trend is that we all have the skill set and the confidence in our skill set but not necessarily the regulation of classroom...you know so...
. I’ll just kinda like agree with people, I guess. Like, by far I think the best part was, was getting to know the support system. Because although the training might have been vague, like I know there is so many people in the program and like your buddy and Ebony and all those people, you guys know all those people and so you know exactly who to go to for help. So I mean, even if it was a little vague, like ah, at least you guys know people who can help you.
...like I would have liked more direction as for somebody who is out of state and from, not from Georgia Southern and all that. Cause I don’t know anything about this place.

And also seeing on a schedule, ‘Hanner 2101’ means nothing to me. I’m like where’s that?

You know what, I think if it’s at all possible, maybe not have the training the week before because like everybody’s been saying that Friday...like today has been extremely busy. You know, keys need to be made, things you know need to be changed, the, the GA View things need to be, e-packs need to be uploaded and there’s emailing and going back and forth and it’s stressful because you have only a small window to get everything accomplished before Monday, when class starts.
The survey results indicated that the participants’ self-efficacy perceptions were neither very high nor very low (between 3 and 4).

Confidence in the content knowledge and limited to no teaching experience can explain the initial self-efficacy ratings (I think I can do it, but I am not sure yet).
Certain features of the training influenced their self-efficacy positively:

- The buddy system (seeing someone who has gone through the experience successfully—vicarious experience)
- Verbal encouragement from the faculty and others (verbal persuasion)
- The teach off experience. Teaching in front of peers and getting feedback (actual performance)
A set of other experiences affected self-efficacy negatively thus counterbalanced the positive effects leading to little to no change in self-efficacy perceptions.

- Recognizing the complexity of the task ahead (They never taught a group of 30 students—lack of actual performance)
- Recognizing the discrepancies in their teaching knowledgebase (lack of actual performance)
- Hearing about negative stories from past (verbal persuasion and vicarious experience)
- Nervousness caused by administrative concerns
Recommendations

- Recommendations are designed around the idea to increase participants’ self-efficacy.

- It should be understood that increased self-efficacy does not lead to greater performance directly. It affects a person’s willingness to invest more effort and attention to his/her teaching.
Recommendations for improvement

- Build on the buddy system (vicarious exp)
- Design the training to fill the knowledge gaps first, then allow for practice the knowledge (actual performance)
- Extend the duration of the training to complete administrative requirements (training) first, then focus on teaching only.
- Use encouragement (verbal persuasion)
- Show videos of success stories (vicarious exp)
- Collaborate with faculty from College of Education.
Future Studies

- Continued research on GTA training effectiveness
  - Teaching Self-Efficacy
  - GTA Satisfaction
  - Case study analysis

- The effects of GTA on student learning
  - Correlations between student learning outcomes and GTA variables
    - Teaching Self-Efficacy
    - Background—undergraduate degree and coaching experience
    - Commitment to teaching.
Questions

- Thank you for listening.
- Questions???