REDU Revista de docencia Universitaria

Revista de Docencia Universitaria
Vol.11 (3) Octubre-Diciembre 2013, 41-52
ISSN: 1887-4592

Fecha de entrada: 30-05-13
Fecha de aceptación: 28-08-13

Graduate Teacher Training in the U.S.: Snapshots from the landscape

La formación de profesores en los Grados en USA: instantáneas del paisaje

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Abstract

The U.S. does not have a federal certification for teaching at the university level mandating graduate-level training in pedagogy. Nevertheless, the field of Graduate Assistant Training is thriving in America and has produced several models that fit a variety of institutional contexts. This chapter reviews training models at 3 institutions: Kennesaw State University, Carnegie Mellon University, and University of Colorado–Boulder. From these models, we extrapolate common successes and point out some unresolved issues that characterize the U.S. landscape.

Key words: Graduate Assistant Training; Preparing Future Faculty; Teaching Certificate; Documentation program.

Resumen

Los EE.UU no tienen una certificación federal en el nivel universitario que ordene una formación pedagógica para la enseñanza en los niveles de grado. Sin embargo, el ámbito de la Formación para los *Graduate Assistant* (asistentes de Grado) está creciendo en los Estados Unidos y ha producido varios modelos que se ajustan a una variedad de contextos institucionales. Este texto analiza los modelos de formación en tres instituciones: la Universidad Estatal de Kennesaw, la Universidad Carnegie Mellon y la Universidad de Colorado-Boulder. A partir de estos modelos, extrapolamos los éxitos y los puntos comunes a algunas cuestiones no resueltas, que caracterizan el paisaje de EE.UU.

Palabras clave: Formación de profesores asistentes de Grado, futuros profesores, Certificado de enseñanza. Programa de Documentación.

Introduction

While the training of teachers at the K-12 level in the U.S. is tightly regulated, there is no comparable regulation when it comes to the teaching qualifications of university professors. Even though there are multiple governing bodies presiding over higher education, no national policy on the academic qualifications of university faculty exists. Instead, the relationship between higher education and the federal government is mediated by the regional accreditation agencies. The U.S. is divided up geographically into 6 regions, with accrediting agencies establishing standards for accreditation in each region, including faculty qualifications. These agencies are acknowledged by the government, and in fact regional accreditation is required in order to receive any kind of federal funding.

However, accrediting agencies do not go so far as requiring uniform standards. Usually, they only provide guidelines, and it is up to each individual institution to demonstrate that its processes are credible. For instance, the Southern Association of Colleges and Schools (SACS) states in its faculty credential guidelines (2006) that "When determining acceptable qualifications of its faculty, an institution gives primary consideration to the highest earned degree in the discipline. The institution also considers competence, effectiveness, and capacity, including, as appropriate, undergraduate and graduate degrees, related work experiences in the field, professional licensure and certifications, honors and awards, continuous documented excellence in teaching, or other demonstrated competencies and achievements that contribute to effective teaching and student learning outcomes. For all cases, the institution is responsible for justifying and documenting the qualifications of its faculty".

Similarly, state governments also play a role, but they usually limit themselves to mandating that each institution establish proper procedures for evaluating the qualifications of faculty hires and promotions in compliance with the accrediting agency guidelines. For instance, the University System of Georgia (USG), in its Faculty Employment policy (2006) states "Minimum employment qualifications for all institutions and all academic ranks within these institutions shall be: (1) Consistent with the Southern Association of Colleges and Schools' requirements for institutional accreditation; (2) Evidence of ability as a teacher; (3) Evidence of ability and activity as a scholar in all other aspects of duties assigned; (4) Successful experience (this must necessarily be waived in the case of those just entering the academic profession who meet all other requirements); and, (5) Desirable personal qualities judged on the basis of personal interview, complete biographical data, and recommendations".

In this vastly unregulated landscape, the most common minimal qualification for a faculty position is the Ph.D. or other terminal degree in the field of expertise. This qualification suggests the misleading assumption that content knowledge is enough for competent university teaching. In addition, the policies as stated are not fertile ground for educational developers advocating for comprehensive teaching training.

Fortunately, educational developers have been able to leverage other regulations, specifically those pertaining to graduate teaching assistants (GTAs). While they stop short of mandating pedagogical training as preparation for a faculty career, accrediting agencies regulate GTAs who are involved in delivering instruction to

undergraduate students. For instance, in the same credentialing document, SACS mandates that GTAs have a "master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline, regular in-service training, and planned and periodic evaluations".

Similarly, individual states also regulate GTAs, usually mandating some kind of teaching training, and specifically English language training for non-native speakers of English. For instance, the USG states in the same Faculty Employment policy:

> *Institutions employing graduate teaching and/or laboratory assistants shall develop procedures to: (1) Provide appropriate training to support and enhance these assistants' teaching effectiveness; (2) Conduct regular assessments, based on written procedures and including results of student and faculty evaluations, of each assistant's teaching effectiveness and performance; and, (3) Assess competency in English and, if needed, provide training in English language proficiency.*

These policies are general and need to be interpreted and enacted, which uniquely positions educational developers to develop and implement such programs, either centrally or working with colleges and departments. Most programs typically include professional development opportunities beyond the limited mansions of GTAs (often involving only grading student work and holding office hours). However, due to the longevity of the program, the institutional context, and other factors, GTA training programs vary widely across institutions.

A catalogue of all programs would be impossible. The approach we will adopt in this chapter will be to highlight 3 different models that span the space of GTA training: 1) the program at Kennesaw State University, a relatively new program in a growing state university with a course offered through the graduate school; 2) the program at Carnegie Mellon University, a medium-sized research 1 private university, offering a documentation program; and 3) the program at University of Colorado-Boulder, a long-standing program now offering multiple levels of certification. The next section will offer a review of the achievements in both GTA training programs and in the field of Graduate and Professional Student training. The final section will review some of the tensions and growing issues in the field.

Case Study #1: GTA Training at Kennesaw State University

Our first case study, Kennesaw State University, represents a program that is relatively new in GTA training. Despite its newness, we are profiling this program because it is representative of many state universities that are working to increase their research profile by adding more graduate programs and faculty, and suddenly have to respond to accreditation mandates with limited resources. The first graduate programs at Kennesaw State University were established in 1985 in business and education. Since that time, nearly 50 graduate programs have been developed, resulting in close to 2,000 graduate students enrolled at KSU as of Fall 2012. KSU developed its first PhD program in 2010 in International Conflict Management.

In Fall 2010, KSU's Center for Excellence in Teaching and Learning (CETL) began offering a workshop series for graduate students that culminated in a certificate of completion. The series included eight two-hour sessions on different teaching issues (e.g., understanding how students learn, creating active learning environments, designing courses and syllabi).

In Spring 2012, the workshop series morphed into a 1-credit course entitled "College and University Teaching." The course contains 11 class periods on various teaching-related topics, including understanding how students learn, facilitating student motivation, creating active learning environments, designing assessments, and designing courses and syllabi. Assignments include: (a) participating in class discussions, (b) creating a syllabus, (c) writing a teaching philosophy, (d) teaching an undergraduate class session, and (e) microteaching.

In addition to offering this course, CETL offers other services for GTAs on an as-needed basis, including intensive "boot-camp" style trainings at the beginning of semesters; consultations about teaching issues; classroom observations for any interested graduate student; and feedback on syllabi, instructional materials, teaching philosophies, etc.

Because GTA training is relatively new at KSU, there are several challenges associated with the program. The biggest challenge is to build a campus culture of graduate training. There is a great deal of variety in how individual programs prepare their graduate students for teaching. In some programs, students first act as teaching assistants for a professor before teaching their own course. These students typically enroll in CETL's GTA training during the semester in which they are assistants. In other programs, students immediately teach their own class under the supervision of a faculty member who reviews their syllabi, provides instructional materials, and observes their teaching twice a semester. These students typically enroll in CETL's GTA training concurrently with teaching their course. In other programs, students receive training in their own departments only. Because of this variability, enrollment in the course hasn't reached its full potential, with 23 students completing the course thus far.

Case Study #2: The Future Faculty Program at Carnegie Mellon University

This program, offered by the Eberly Center for Teaching Excellence and Educational Innovation, was originally named the Documentation of Teaching Development when it was initiated in the early 1990s, and only recently has it been renamed Future Faculty. The motivation for the original name, which shapes the entire approach, is that the program is not meant to be a certificate. Carnegie Mellon does not have a College of Education or a Graduate School that would certify and accredit the program. A certificate implies the assessment of competencies emerged through the training. The program does not have a formal assessment of those competencies. Instead it opts to document for external parties the steps that students have taken to develop their teaching skills. The program involves four requirements, plus a constellation of additional opportunities for development.

The first requirement is to attend ten or more workshops on teaching. Six of these workshops must be from a menu of Core seminars (Student Cognition, Student Motivation, Planning and Delivering Effective Lectures, Encouraging Intellectual Development and Critical Thinking, Conducting Productive and Engaging Discussions, Assessing Student Learning, Course and Syllabus Design, Responding to Student Diversity). The remaining 4 can come from the core menu or from other workshops offered periodically, addressing specific formats (e.g., labs, studios, recitations), the needs of particular audiences (e.g., adult students, students with disabilities, international students, first-year students, students in psychological distress), signature pedagogies (e.g., service-learning, problem-based learning, collaborative learning, writing-to-learn), specific teaching instances (e.g., the first day of class, academic integrity, problematic student behaviors), or professional development (e.g., teaching portfolios, statements of teaching philosophy).

The second requirement is to have one's teaching observed twice by Eberly Center staff. This requirement can be satisfied in a course the student is teaching, in a guest lecture, or in a Microteaching workshop, but at least one observation must be in an actual course. The observation involves a pre-observation meeting, the actual observation, a feedback meeting highlighting the GTA's strengths as well as suggestions for improvement, and a written summary of the observation. The second observation might focus specifically on suggestions made the first time. The Eberly consultant does not rate the teaching as passing or not passing. Instead, the requirement is satisfied simply by going through the process. The observation focuses on 9 categories of effective teaching, detailed in DiPietro (2012).

The third requirement consists of a course design consultation. It is recommended that students attend the Course and Syllabus Design workshop and learn about course design principles. Afterwards, they design a course and submit the syllabus for it. The process is applied at the macro level of the whole course. Students are not required to submit individual learning modules or assignments. The consultation proceeds with a feedback meeting on the syllabus, usually focusing on ensuring that course goals, assessments, and activities are all aligned, that learning outcomes are student-centered, action-oriented and measurable, and that the tone and policies are conducive to a productive climate for learning. The consultation continues with revisions of the document, usually focusing on rewriting learning outcomes.

The final component of the program is an individualized project, relevant to the student's teaching interests, demonstrating a substantial commitment of thought and effort, and accompanied by a short reflection on the learning that occurred for the student in the project. The program suggests two default projects: the development of instructional materials (e.g., assignments, rubrics, powerpoints), and the development of a teaching portfolio and philosophy (for those who have taught their own course). Other projects are possible, but they must be approved in advance by the Eberly Center.

Those who complete the four requirements receive a letter from the Eberly Center. The letter functions both as a transcript, listing all the workshops and other requirements completed, and as a letter of reference, commenting on the significant

aspects of the students' participation (e.g., passion for teaching, effective practices enacted during the observation, personal philosophy). Students consistently report on how impressive the letter is to potential employers because of the level of detail.

The Eberly Center offers other opportunities for teaching development, including an occasional reading club, consultations on course evaluations, consultations on teaching portfolios and philosophies, a GTA handbook comprised of strategies collected from experienced GTAs ("Collected Wisdom: Strategies and Resources for TAs"), and department-tailored support.

Case Study #3: The Graduate Teacher Program at the University of Colorado—Boulder

Unlike other universities where the program is offered by a center that mainly works with faculty, the University of Colorado-Boulder (UCB) has an office, the Graduate Teacher Program, completely dedicated to graduate student professional development.

In addition to informal consultations and the usual offerings, this program offers three certificates. The Certificate in College Teaching helps graduate teachers develop a confident classroom presence, good interactional skills, and a firm foundation in college teaching. The Professional Development Certificate for Preparing Future Faculty offers graduate students the opportunity to pursue a project on teaching at the college level under the guidance of a faculty mentor. Finally, the Professional Development Certificate for Preparing Future Professionals in Business, Government, Industry and the Arts offers the opportunity to pursue an internship off campus to those graduate students interested in developing leadership or management skills for careers beyond academia (which we will not review here).

Students interested in the Certificate in College Teaching must attend 20 workshops from a menu covering the following areas: general pedagogy, personal and professional development, issues in teaching and course design, academic policies, assessment and evaluations, teaching portfolios, technology and teaching, SoTL, and other topics. In addition to these centralized workshops, students must complete a minimum of 20 hours of discipline-specific training in their department. They are also required to complete two non-evaluative consultations on their videotaped teaching with the center, a teaching observation and written evaluation from a faculty member in their department, and a teaching portfolio. The unique element of this model compared to the previous two is that it requires candidates to teach for two full semesters on campus (in courses, recitations, or laboratories). At the end of the program, and upon recommendation from the department, the program director reviews each candidate's file and portfolio and decides if the candidate is approved for certification. The candidate then completes a reflective activity in the form of an online exit survey and finally receives the signed certificate. International graduate students are also eligible for this program, but they must satisfy two additional requirements. They must participate in 3 workshops specifically designed for international students, and they must provide evidence of English proficiency if their native language is not English. The expected timeline for completion is about two years.

The Professional Development Certificate for Preparing Future Faculty is geared toward preparing people for the multiple roles involved in being a faculty member. Because of this broader focus, teaching a course is not a requirement of this program. In addition, the audience is expanded to include post-doctoral fellows as well as graduate students. Like other certificate programs, this one involves workshops, ten teaching workshops, and ten professional development workshops (the latter either through the program or department-specific). The bulk of the certificate, however, is a mentorship experience. Participants identify a faculty member at a host institution different from UCB but part of the Colorado Preparing Future Faculty network (this gives the student exposure to varying faculty roles depending on institutional type). The Graduate Teacher Program office sets the parameters for the project, including the length (120-150 hours). The mentorship could be an experience (e.g., involving teaching, shadowing, attending meetings), or it could involve developing a project (video-, web-, or print-based).

Each plan must be approved by the Graduate Teaching Program. At the conclusion of the mentorship, the mentor is required to provide an evaluation of the mentorship vis-à-vis the goals set up for it. The candidate is required to produce a Socratic portfolio to document the experience and reflect on it. Socratic portfolios (Border, 2002) contain a narrative or reflective essay which situates the mentorship in the context of the graduate student's personal and professional development, a summary of the mentorship experience, tasks accomplished, a description of future and career plans, and an appendix of supporting documents and artifacts demonstrating proficiency in the outcomes established. This program also ends with the exit survey, the official certificate, and the academic transcript updated to reflect this credential. In addition to the in-house offerings, the Graduate Teaching Program is part of the CIRTL network, (see next section), so that GTAs also benefit from the cross-institutional initiatives of the network.

GTA Training: Achievements

As these case studies demonstrate, GTA training in the U.S. has come a long way from its beginnings, in which graduate students were trained exclusively in their content areas and were expected to simply know how to teach without receiving much, if any, training (Prieto & Scheel, 2008). The first GTA programs began to emerge in the 1970s and were focused primarily on the immediate teaching needs of beginning teaching assistants (Austin & Wulff, 2004). The current state of GTA training in the U.S. is much more comprehensive. For example, it is common for GTAs to undergo an initial orientation to prepare them for their teaching assistant duties, followed by a series of workshops or even a for-credit course on college and university teaching (Border & von Hoene, 2010). The topics in these trainings have become more advanced as well (e.g., writing teaching statements and teaching portfolios, attention to diversity).

The field of Graduate and Professional Student Development is thriving in the U.S. and has generated ample literature (e.g., Marincovich et al., 1998; Wulff et al., 2004), a journal (*Journal of Teaching Assistant Development*, later renamed *Studies in Graduate and Professional Student Development*), GTA training conferences and their

proceedings (Chism, 1987; Lewis, 1993; Nyquist, Abbott, Wulff, & Sprague, 1991), as well as an interest group and a committee in the POD Network.

Additionally, national initiatives have emerged, aimed at designing a more holistic approach to the training of graduate students. These initiatives, such as Preparing Future Faculty (PFF), the Re-envisioning the PhD Project, the Carnegie Initiative on the Doctorate, the Responsive PhD project, and the Future Professoriate Project, funded through foundations and national organizations, focused on embedding teaching preparation in graduate training and preparing GTAs for multiple roles, at different institutional types and even beyond academia, sometimes with a focus on STEM disciplines (Border & von Hoene, 2010; Gaff et al., 2003; Lambert, 1993; Nyquist & Woodford, 2000). Although the funding for PFF programs was eventually discontinued, many universities have continued to implement PFF-type experiences for their graduate students (Palmer, 2011), demonstrating how these national calls have become embedded into the institutional fabric.

A recent development in GTA training concerns the assessment of the training: To what extent do participants in GTA training programs achieve the learning objectives? Early studies focused on self-report data from participants showing that students who underwent training rated themselves as more confident and prepared to teach (Prieto & Myers, 1999). Recently, members of the Graduate Student Professional Development committee of the POD Network created a list of ten competencies that GTAs should achieve, such as developing disciplinary knowledge, assessing student learning in alignment with learning objectives, and using evidence-based teaching approaches (Border et al., 2012). These competencies could lead to future studies on the degree to which graduate students achieve these competencies and what aspects of training programs best facilitate the development of the competencies.

Finally, partnerships among different institutions in the training of GTAs are becoming increasingly common. For example, the Center for the Integration of Research, Teaching, and Learning (CIRTL) Network consists of 25 doctoral-granting universities who collaborate in the training of graduate students in STEM (Science, Technology, Engineering, and Math) fields. CIRTL students take online courses and seminars on various topics, such as effective teaching, creating a teaching portfolio, and the scholarship of teaching and learning, and faculty members in the CIRTL network can receive training on how to offer these online courses. Students also complete Teaching as Research (TAR) projects as part of their participation in CIRTL, and they have access to online chat sessions with faculty and students both at their own institution as well as at the other institutions in the CIRTL network. CIRTL students can participate in a “network exchange program” in which they visit a partner institution for 2-3 days in order to network with peers, give presentations on their disciplinary research and TAR projects, and practice their job interviewing skills (see http://www.cirtl.net/ for more details).

Issues in GTA Training in the U.S.

Despite these successes, the field of GTA training faces emerging and enduring issues.

Mandatory vs. voluntary training. Should training graduate students on teaching issues be mandatory for students who are planning to be teaching assistants and/or teach their own courses? There are mixed views on this issue. On the one hand, there is a great deal of research to suggest that graduate students benefit enormously from receiving training on how to teach (e.g., Prieto & Myers, 1999), which suggests that mandatory training is beneficial for both the graduate student teachers as well as the undergraduates whom they have been entrusted to teach. On the other hand, mandatory training can be perceived as coercive, and students who are mandated to attend training might not be fully invested.

Centralized vs. distributed training. When GTA training is offered through a teaching center, the individuals providing the training are likely well versed in learning theory and the research on effective teaching practices. In addition, centralized GTA training avoids the problem of duplication of effort; in other words, the principles of course design, assessment, student motivation, etc. are similar across departments, and it makes sense from an efficiency standpoint to have one person facilitate the delivery of that content versus numerous individuals across numerous departments. On the other hand, faculty members in each discipline are more knowledgeable about the norms and research associated with teaching in their field and are more qualified than an individual at a teaching center to address those issues. The best solution might be to offer centralized training for general teaching issues that is coupled with non-duplicative training on discipline-specific issues.

Online vs. face-to-face training. Due to classroom space considerations as well as student and faculty schedules and preferences, universities are offering an increasing number of online courses. There is little research on the extent to which GTA training is offered in online or hybrid formats and whether such training is effective in preparing students for the classroom.

Postdoctoral training. Historically, efforts at college and university teacher training have focused on graduate students. However, recently some programs have begun offering the training to their postdoctoral fellows. There is currently little research on how extensive this training is or how effectively this training prepares postdocs for teaching.

Recognition of the training. There is a wide range of ways in which GTA training is formally recognized. Some institutions offer a documentation letter. Other institutions offer a course that is included on students' transcripts. Still other institutions offer a certificate for their training. There is little standardization, however, in this recognition; for example, a certificate can be issued for anything ranging from the completion of a workshop or a series of workshops to a multi-year training program involving coursework, teaching, and projects related to the scholarship of teaching and learning.

Conclusion

Despite the lack of a federally established certification, the field of GTA training has succeeded in making a solid case for future faculty training beyond the basics and in

creating programs with a degree of uniformity across institutions. Local differences persist, due to institutional context and longevity of the training, but such differences are expected. As the field keeps evolving and further professionalizing itself, further research will likely address some of the unresolved issues, in particular about documenting the effectiveness of training programs.

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Artículo concluido el 15 de Junio de 2013.

Cita del artículo:

DiPietro, M., Buddie, Amy M. (2013). Graduate Teacher Training in the U.S.: Snapshots from the Landscape. *Revista de Docencia Universitaria. REDU*. Número monográfico dedicado a *Formación docente del profesorado universitario,* Vol. 11 (3) Octubre-Diciembre. pp. 41-52. Recuperado el (fecha de consulta) en http://www.red-u.net/

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