

Undergraduate Instructor Assistants (UIAs): Friend or Foe

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Undergraduate students have been and continue to be employed as instructor assistants (UIAs) in a variety of courses across disciplines. However, relatively little empirical research has been published regarding the educational merits for them or their students. The present essay extends such research by focusing specifically on UIAs' perceived value of the Personalized System of Instruction (PSI) on their learning and personal growth. The authors conducted in depth interviews with six former UIAs and employed a qualitative thematic analysis of their responses. Perceived benefits that emerged from the analysis include, for example, learning how to balance many different roles and responsibilities, gaining a unique perspective on teaching, and developing leadership skills. The findings support previous research that the UIA experience benefits both the UIAs and the instructional process.

Keywords: undergraduate instructor assistants, personalized system of instruction, mastery learning,

Undergraduate students are employed as instructor assistants (UIAs) and/or tutors in a wide variety of courses. They are often used in Personalized System of Instruction (PSI) taught courses or as assistants to instructors teaching lab courses. In fact, it is estimated that over six thousand PSI courses have been taught at all curriculum levels at one time and that there are a significant number of universities presently utilizing UIAs in the classroom (Sherman, 1974, Carnegie Mellon, 2002, Fuller & Winch, 2005, Seiler, 1982, Seiler, 2014). There are no specific data in the literature to suggest the extent to which undergraduates are used in the classroom as assistants or as tutors at the present time. There are, however, a number of communication programs presently using undergraduates as apprentices, tutors, or instructor assistants.

Undergraduate students have been an essential part of the PSI method of instruction for over a half century. The system is often referred to as the Keller Plan, named after Fred Keller, who founded the method (Keller, 1968). The data regarding the use of undergraduate students in PSI and in lab courses have been either sparse or non-existent in recent years. Therefore, although what is known about the role of undergraduates in the college classroom is generally dated, it is still important to the understanding of the role that undergraduates can play in the classroom. Boylan (1980) reported in the 1980s that there were over thirteen hundred individuals using the PSI method in a variety of course offerings and that over 80 percent of those reporting using undergraduates as instructor assistants in their courses were at four year institutions. In this essay, we explain how and why undergraduate students are employed as UIAs. We begin by describing the PSI method, then explaining how the UIA role has changed over time, and ultimately exploring specific ways in which both UIAs and the students they work benefit from the experience.

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PSI Described

Keller developed the PSI method because he believed that students were not learning as efficiently as they could and were not being reinforced for what they did learn (Keller, 1968, Kulik, Kulik & Cohen, 1979). The PSI method is comprised of five defining characteristics: (1) mastery learning, (2) self-pacing, (3) a stress on the written work, (4) instructor assistants, and (5) the use of lectures to motivate rather than to supply essential information (Sherman, 1974; 1982).

The *mastery* aspect requires students to perfect some aspects of the instruction. Keller and his associates believed that accomplishment was best detected through behavior or performance. Thus, Keller believed that frequency of responses that had consequences increased student learning. The theory behind Keller's approach is repeated trials that aid student learning, especially if those trials are not penalized when not done to perfection. Moreover, Keller believed it is important to reward success. In other words, grades should reflect accomplishment, not the number of mistakes made, and grading should be determined on absolute rather than on normative standards, which are competitive or comparative (Scott & Young, 1976).

The second feature of PSI is *self-pacing*. Given that at least some part of the PSI method requires either partial or complete mastery, students must be afforded an opportunity to go at their own pace. Because of individual learning differences, mastery cannot always be scheduled or timed. Obviously, there must be some mandatory deadlines (i.e., the minimum level of tasks must be set within the time frame of the course—a quarter, a semester, or other) (Seiler, 1983).

Third, the PSI method as first conceived tended to rely heavily on the written word. Today, however, thanks to accessibility of information via the Internet, the written word can easily be complemented with or replaced by video lectures and other electronic materials.

The fourth feature is *undergraduate instructor assistants*. These UIAs have previously taken the course and assist the instructor as proctors and tutors. UIAs are necessary to ensure more personalized attention and to aid the instructor in allowing students to work at varying paces in learning the course's content and mastering the learning outcomes.

The fifth feature is that the *lecture*, under the original design of PSI, was used only for motivation. Today, however, lectures can be available to students at any time of day or night via technology, thereby supplementing and supplanting the written word as the primary means of instruction.

Undergraduate Instructor Assistants

Undergraduate instructor assistants are being used more and more in classrooms today, due in part to diminishing economic resources (Seiler, 1983, 2014). In addition, as enrollments increase, undergraduate assistants can help to address the demands of larger class sizes. It has also been shown that the relationship between an undergraduate instructor assistant and student can be beneficial to both as well as to the instructor and the instructional process itself (Fuller and Winch, 2005).

A major question that often arises with use of undergraduates as instructor assistants, tutors, or apprentices is: Does the use of undergraduate students as teaching assistants provide high quality instruction for students? This question is not easy to answer. Over the past 30 or more years that UIAs have been utilized in our introductory communication course, student evaluations of them suggest an overwhelming "yes!" Although this

contention is not based on a scientific study, it does reflect thousands of students' evaluations of UIAs, which show that UIAs are rated as friendly, caring, and generally perceived by students who work with them as competent.

Unfortunately, relatively little research exists to support or denounce UIAs as effective in the classroom. In one of the first studies of undergraduate students as UIAs, Buerkel-Rothfuss and Yerby (1982) found that students rated working with undergraduates as helpful. This outcome, however, does not indicate that undergraduates are competent instructors.

In a more comprehensive study of the use of undergraduate students as IAs, Jones and Seiler (2005) explored the relationship between perceived instructor assistant communication skills, immediacy, and credibility and student motivation. Although there were a number of limitations to the study, the authors did find that UIAs who were perceived by their students as having better communication skills were also perceived to have higher levels of verbal and nonverbal immediacy. As in previous research, the results here suggest that there is considerable overlap between behaviors that represent communication skills and verbal and nonverbal immediacy.

Jones and Seiler (2005) also found that UIAs that displayed both verbal and/or nonverbal immediacy behaviors had a strong positive influence on student motivation. In a PSI taught course, with its self-pacing feature, UIAs who can motivate students to complete the course successfully are perceived as competent. Moreover, those UIAs who had strong communication skills were also seen as more credible. Jones and Seiler concluded their studies by stating that their findings “prove important for students, instructor assistants, peer tutors, teachers, course directors, department chairs, and university administrators because they show that the communication with the UIA-student relationship is vital to the success of students” (p. 23).

The use of undergraduate students does create some concerns related to quality control, but much of this disadvantage can be overcome with training and control checks to prevent problems from occurring. Thus, if the selection process is effective and high quality students are selected, training is sufficient and complete, and quality control measures are in place, then the use of UIAs can be justified and a value resource to the instructor.

Although research on the use of undergraduate students as instructors is limited, there is sufficient evidence to support their use. The research related to the benefits acquired by the undergraduate instructors has been minimal and not definitive. There are some anecdotal but nevertheless attractive reasons for using UIAs. In a quick survey of UIAs, Seiler (1982) identified several relevant outcomes:

1. *UTAs learn the course materials more thoroughly than when they took the course originally.* The UTAs are exposed to the course's content a second time, and when they have to explain concepts and terms to the students they work with, they have to know what they are telling their students.
2. *UTAs gain experience in working with others.* They understand better behaviors associated with teaching and how it feels to be on the teaching side of the learning experience.
3. *UTAs find the experience very satisfying.* This was evident in that about 30% of the UTAs who are able to do so request to participate in the UTA experience a second time. The UTAs comments when asked almost always indicate an extremely positive experience.

The research question we attempt to answer in this study is how UIAs benefit from serving as instructional assistants in the basic communication classroom.

Method

To understand how undergraduate students benefit from their experiences as UIAs, we interviewed six former UIAs about their experiences and employed qualitative methods to discover emergent themes among their responses. More specifically, we asked them the following questions:

1. How would you describe the responsibilities or role you had as an IA in Comm. 109?
2. As a student yourself, how did the students that you worked with treat you?
3. How did the instructor responsible for the course that you worked in treat you?
4. Describe the training you received and how well it prepared you to do your job.
5. What, if any, challenges did you face as an IA? How did you deal with them?
6. If you had a chance to be an IA again would you? Why or why not?
7. What did you learn from being an IA about yourself? About the course's content? About teaching? About Students?
8. On a 1 to 5 scale with 1 being Extremely Positive and 5 being Extremely Negative, how would you rate your experience as an IA? Explain your rating.

We conducted two interviews in person, two interviews via telephone, and two interviews via email. Four of the UIAs had served in the role for two semesters and two had served for four semesters in the role.

Results

The UIAs who shared their experiences with us reflected candidly on what it meant to them, how they benefitted from the experience, and the challenges they faced during the process. Here, we describe and discuss reflections from the six UIAs who discussed their reflections with us.

“I learned how to balance many different roles and responsibilities”

The UIAs were responsible for many different tasks within our PSI system. When asked how they would describe the responsibilities and roles they had as an UIA in the introductory course, one student responded:

Being an UIA was definitely a responsibility. There were so many new things that I had to take on. I had to figure out how to teach my group in a way that they could understand and also in a way that kept them interesting and engaged. I had to send out reminder emails and make sure that they were on top of their speeches and papers. I also had to answer any questions that they would have. I had to conduct workshops and breakout sessions with the students, facilitating participation amongst the students, grading speeches and other various assignments, and keeping attendance records. I really had to keep on top of everything and it helped me to understand how important it was to be organized.

This student reflected on the various responsibilities he held as well as the value of the organizational skills. Some UIAs classified their responsibilities as falling somewhere in between that of peer and instructor and described how they needed to find their place as they navigated their various roles:

I do feel the role is closer than an instructor; our role is somewhere in between a peer and a teacher. The students treated me like I was one of them; they could relate to me but they also looked to me as a mentor who had the knowledge they needed. My students were very attached to me. I really had to figure out how to balance these different roles I had with them. I had to grade them when some of them saw me as a peer but I also had the responsibility to show them I was not their friend and had to take on that position of authority.

This student reflected on how to balance the roles of student/peer and that of leader/mentor. Because the UIAs were simultaneously students themselves, they often discussed how they related well to students while simultaneously needed to find their place as a leader among their peers. UIAs admitted that they initially felt nervous about how students would treat them and shared how they gained the respect of the students in their group:

At first I was worried how students would react to being taught by someone so close to their age group. However, I established myself right away as serious and credible. I specifically dressed in suits and business attire to emanate the fact that I took my role seriously, just as I demonstrated enthusiasm for the course material and communication's importance in our everyday life. The students in turn respected my instructions, advice, grades, and feedback to them regarding their work.

“I was able to get a behind-the-scenes look at teaching”

UIAs often shared that their experience allowed them to gain glimpse of what a teacher's job entailed. Some UIAs talked specifically about how the UIA experience was an opportunity to engage students in Communication Studies and witness how different learning styles influenced the way they related to the course content:

The course content is so important, as communication is key to any relationship. The introductory communication course is an important course for any college student to take. I liked teaching the many freshmen in the course in hopes of getting them either interested in Communication Studies or cognizant of their everyday communication skills and uses. I do like the teaching aspect of being an UIA, as I love being a leader and having others listen intently to what I am saying; I aspire to make impacts in others' lives. As for the students, I had the opportunity of observing different learning styles between each student. I liked to see certain methods work better than others so I could hone what worked best for each group of students I had.

Because UIAs work closely with instructors, they often shared how this relationship shaped their experience as an UIA:

The instructors I worked with were very respectful and appreciative of my contribution to the class. I assisted an instructor in one of my courses that was fairly new to the Communication program, so I was able to contribute my gained knowledge of the UIA program. Not only did I feel very helpful and appreciated, but it also helped the flow of the course. Overall, the instructors I worked with cared that UIAs were an essential part to the dual-learning program the introductory communication course offers.

Other UIAs remarked that gaining a perspective from the teacher's side helped them appreciate the challenges teachers faced. One student commented:

I learned that teaching is more difficult than one might anticipate, especially if you are working with students that show no enthusiasm or motivation. At first, many students seemed apathetic and indifferent to the material and had absolutely no desire to be there and therefore it [was] increasingly more difficult to get them to engage with one another. It's also simultaneously rewarding when working with engaged and diligent students.

UIAs commonly shared that they discovered teaching was more challenging than they originally expected. Some students who were considering becoming teachers prior to serving as UIAs shared how the experience shaped their ambitions:

I learned that I should not be a teacher. Not that I didn't love being an UIA, but I figured out that I am not very good at thinking of more questions to keep a discussion going. It was also a struggle sometimes to keep them focused.

Other students expressed that the various responsibilities they held allowed them to understand what teachers faced in the classroom. One UIA remarked:

I really had to be on top of answering emails and making sure I posted grades on time; otherwise, students would get upset or feel lost. With grading especially I had to be able to justify why I gave a certain grade, because students can be very grade focused. I definitely developed respect for teachers through the process of grading and emails.

"I developed leadership skills"

When reflecting on their experiences, UIAs commonly expressed that the process helped them to develop and enhance their leadership skills, particularly their ability to facilitate discussion and to have confidence in interacting with students. One student shared:

Well we got internship credits for being an UIA and that's really how I approached it, as an opportunity to develop these new skills. I enjoyed earning credits for the internship, and also appreciated how applicable the experience was for my future as a leader but as a communicator as well.

This student mentioned how receiving internship credits while serving as an UIA shaped the seriousness with which he approached his UIA responsibilities. Other students expressed similar sentiments:

I took the role of "leader" from the beginning. In this, being a mature role model for all of the Comm classes was important in establishing credibility and respect. I accepted the responsibilities of showing up for class on time, showing attention and interest during lectures, grading speeches fairly, and effectively teaching the coursework in different ways I saw that worked for each of my groups of students.

Other students shared how the challenges they faced helped to develop their confidence in their own leadership abilities:

The first time that I was with my group I definitely felt intimidated. Just because there were so many students, and I didn't know what they were like or if it would be a struggle to get them to listen to me or not. I wondered, "Would they listen to me?" "Would they see me as being in a position to evaluate them?" Even though I knew what I was doing, I was still nervous. But by the end of the semester, I realized how much I had grown in my own ability to lead discussion, answer questions, and just understand how to be confident

One student discussed the importance of the patience she developed during the process of being an UIA:

Being an UIA helped me to have more patience with others and I think that helped me develop as a leader. Working with the students helped me to realize that having patience is a very necessary thing. Some of the students ended up surprising me. I had high expectations of them to begin with, but a few of the students in my group went above and beyond of what the assignment had asked of them.

Students often reflected how they saw their communication skills develop during the semester because of the roles they assumed within the classroom. One UIA shared:

At first, I don't think that the students really knew how to interact with me. They were very respectful but didn't say much and it was like pulling teeth to get them to participate in the discussions. Over time, I learned that I just needed to give them time to answer and figure out different ways to facilitate discussion. After several weeks of meeting together, they became more comfortable around me and the other group members. They were still respectful but we treated each other as equals, which I think benefited our group. I think that's part of leadership is that mutual respect.

Other students reflected on the challenges they faced and how these challenges helped to develop their leadership skills:

As a UIA the only challenge I feel that I faced was that some students took my kindness for weakness. And to let them know I was serious and that I gave them the grade they earned for the assignment. I learned to be more assertive to have confidence in my ability to do the job.

“The training workshops helped prepare me for my role in the classroom”

The UIAs participated in weekly training sessions over the course of the semester that focused on preparing them to lead in-class workshops, grade speeches, and answer questions from students. The UIAs discussed what they found most useful about their training and what it meant to their experience in the classroom. One UIA responded:

The training sessions helped me develop better time management, leadership and organization skills and were just a chance to ask questions and make sure we were all on the same page. I had to work hard and answer questions from students that had concerns or needed help on certain aspects of the course and the trainings helped me make sure I knew how to do that.

Other UIAs reflected on how the trainings prepared them to be fair and consistent graders:

A big part of our responsibility is grading student speeches so we focused on how to do that in training by watching speeches from students in the past and practicing grading it so we could make sure we understood the grading process. That was when we could ask questions about why were grading something a certain way, like making sure we knew what a thesis statement looked like, that kind of thing.

Because grading student speeches was a large part of the role of the UIAs, they remarked on what they learned about the grading process from the training they received:

I learned that it’s really important to be consistent across students, because you’re going to be accountable for those grades and sometimes it was hard to give low grades when I could tell students were nervous, but training was a chance to practice the grading and talk it through as a group. We also talked about how giving too high of grades is harmful because it hurts the students who actually give “A” speeches. I felt confident about how I graded from the training; we practiced it a lot.

UIAs also reflected on other aspects of the training they received and how it prepared them to do their job:

The original training UIAs received was very helpful to feel confident in grading the different speeches and instructing the course activities each class. I felt comfortable being able to talk about the different topics like persuasion, problem solving, listening after. It was especially helpful since we actually practiced doing the activities ourselves as well as grading practice speeches before the real speeches. It was very reassuring to know that I was giving out similar grades for certain material as the other UIAs.

Overall, the UIAs interviewed for this analysis reflected positively on what the experience taught them and the various ways it prepared them to work with students. On a 1 to 5 scale (with 1 being Extremely Positive and 5 being Extremely Negative) students on average gave their experience a 2. And all but one vehemently responded that they would want to be a UIA again if they had the chance. As one student commented, “Getting course credit and

helping further other students' education was very fulfilling. I thrill off of being a leader and enjoyed my experience and the instructors I had the privilege of getting to know.”

Limitations and Future Directions

In seeking to understand how UIAs benefit from the experience of assisting instructors, we asked UIAs themselves to share their reflections about doing so with us. While we gathered rich data from the interviews of the UIAs who talked with us, a potential limitation is our focus only on self-report data. Although self-report data is important, it is useful to note that collecting other types of data (e.g. through fieldwork) would provide additional avenues to gain a richer understanding of UIAs experiences. Second, our sample of participants was small and reflected very positively on their experience. While this finding supports previous research suggesting that UIAs find the experience very satisfying (Seiler, 1982), it would be useful to obtain a larger sample in order to assess a wider range of experiences. While we lacked an ethnically diverse sample, future researchers could design studies that aim to assess the way various social locations, such as race and gender, impact the way UIAs experience their roles. We approached this study by interviewing the UIAs individually, but future researchers could usefully examine the experiences of UIAs from the perspective of faculty, from the perspective of undergraduate students enrolled in courses using the PSI system, or through conducting focus groups that bring UIAs and students together to talk about the challenges and benefits of this method of instruction. Clearly, additional research aimed at understanding both how UIAs benefit from the experience of assisting instructors and how students benefit from the assistance of UIAs is warranted.

Conclusion

The goal of this study was to examine how undergraduate instructor assistants (UIAs) benefit from the experience of assisting instructors. While UIAs admitted a number of challenges, such as striving to find their place as both leader and peer, they overwhelmingly reported the experience as positive. As financial resources become more limited and enrollments continue to grow, utilizing UIAs can help meet the unique demands of the contemporary college classroom. The findings described how UIAs learned to balance many different roles and responsibilities, gained a unique perspective on teaching, developed leadership skills, and grew from the training they received in ways that prepared them for their role as classroom UIAs. These findings support previous research that explores how UIAs can be beneficial to students, as well as the instructional process. The PSI method is one powerful method for individualized instruction and UIAs play an essential role in ensuring that students receive more personal attention and foster an environment where students can work at varying speeds in learning course content. Through examining how UIAs themselves reflect on and describe their experiences, these findings shed light on the benefits and challenges students encounter as they assume this unique role within the classroom.

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