

# Survey-Based Learning of Interns in Orientation and Mobility Program

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## Abstract

**Background:** This study examined how students enrolled in a university orientation and mobility personnel preparation program in the Southwestern part of the United States perceived their competency levels regarding their knowledge of orientation and mobility principles and applications. This graduate master's degree or certification program includes students with various backgrounds (e.g., special education teachers, social workers, general education teachers).

**Method:** To enter this Orientation and Mobility program perspective students must hold an undergraduate degree with a Grade Point Average of 3.0 on a 1-4 scale, and submittal of a resume, a personal statement, and transcripts from previous college/university coursework. These materials are then reviewed, and perspective students are accepted or rejected into the university's Orientation and Mobility Program. The Orientation and Mobility Program consists of nine 3-hour semester courses. The internship course is the last course in their program of study for a certificate. To pursue a master's degree students, complete an additional nine credit hours in special education. Most of the students maintain fulltime employment while completing their coursework. Using a self-evaluation form that included competency criteria provided by the Academy for the Certification of Vision Rehabilitation and Education Professionals, 74 orientation and mobility interns at the university evaluated their capabilities and proficiencies before they began and after they completed their internship.

**Results:** Before beginning the internship, the participants, on average, considered themselves to be moderately or somewhat proficient in all 13 orientation and mobility competencies ( $M = 3.25\text{--}3.53$ ,  $SD = 0.62\text{--}0.94$ ). After completing the internship, the participants, on average, reported feeling significantly more proficient ( $p < .001$ ) in each of these 13 orientation and mobility competencies ( $M = 4.13\text{--}4.49$ ,  $SD = 0.49\text{--}0.66$ ).

**Significance:** This study represents an initial attempt to examine interns' perceptions of their proficiency levels vis-à-vis orientation and mobility competencies before beginning and after completion of the internship. Future research could examine the relationship between the interns perceived mastery of competencies and the actual mastery of these competencies.

## Keywords

Orientation, Mobility, Internship, Interns.

## Introduction

In medieval times, experiential learning existed in the form of apprenticeship programs (Hindman, 2009). Today experiential learning which includes internships, applied practicums, and academic service learning has emerged as a bridge between school curricula and occupational settings (Miller, 1982). Internships, for example, provide university students opportunities to apply the knowledge, skills, and abilities that they will need in future employment. They also allow students to reflect on the knowledge and skills they have learned in the classroom, thereby improving their self-efficacy (Kolb, 1984). In addition, as Shotsberger (2005) argues, the benefits of student internships include: “the identification of transferable skills, visualization and confidence, organizational awareness, professional terminology, networking and career direction” (p. 192).

Internship benefits all stakeholders involved, with each having various expectations concerning the experience. For example, Santariano and Rogers (1979) discuss the different expectation that students, university programs, and prospective employers have for student internships. They argue that students expect to learn the skills that they will need for future jobs, faculty expect student interns to be able to apply their classroom knowledge to the working world, and employers see student internships as opportunities to train and pre-select future employees (Santariano & Rogers, 1979). To learn whether students feel that they have benefited from their internship programs, students should complete evaluations of their internships.

### Self-efficacy

According to Bandura (1997), individuals' self-efficacy is how they think, feel, believe, motivate themselves, and behave to perform a given skill. Students' capabilities are critical to their performance and success and the degree to which students believe in their capabilities is important. Moreover, a strong sense of self-efficacy can help an individual to overcome challenges and stay committed to their goals, thereby increasing their accomplishments and improving their personal wellbeing (Ouweneel & Schaufeli, 2013). Since an individual's self-efficacy is on text-specific (Bandura, 1997), it may change over time. For example, interns may have different beliefs after completing their internship. The shift

occurs when students engage in field-based experiences, such as internship, a kind of cognitive apprenticeship in which learning is situated (Lave & Wenger, 1991).

According to Lave and Wenger (1991), situated learning enables students to learn by participating in authentic activities, contexts, and cultures; by putting into practice the knowledge and skills conveyed by university curricula; and by reflecting on their experiences in real-world situations (Shaw, 2001). Throughout this orientation and mobility in-ternship, prospective students learn life skills including self-awareness and self-knowledge that will eventually help them transition from being a student to being a practitioner (Lindstrom, et al., 2007; Meyers, 2011). As interns' make this transition, their self-efficacy concerning teaching and supporting their students plays an important role. Orientation and mobility interns, especially those without specific experience training individuals with visual impairments, may find teaching during their intern-ships challenging.

### Program Evaluation

Program evaluation is crucial to any course or education program because it allows developers (e.g. faculty) to obtain reliable and valid data that may answer questions about a program's performance (Wholey, Hatry, & Newcomer, 2010). The Association for the Education and Rehabilitation of the Blind and Visually Impaired (AERBVI) implements the process of university review (program evaluation) (Weiner & Sifferman, 2010), now called the “AER Accreditation Program” (Association for the Education and Rehabilitation of the Blind and Visually Impaired, 2018). As part of this process, the faculty of university orientation and mobility programs complete self-studies that employ the standards identified by AERBVI for orientation and mobility specialists. Another part of this process requires faculty to examine how standards are incorporated into their universities' orientation and mobility curricula. Additionally, by the Academy for the Certification of Vision Education and Rehabilitation Professionals (ACVREP) is the organization in the United States that certifies orientation and mobility specialists. They also have standards like AERBVI. The faculty of a Southwestern university's Orientation and Mobility Program decided to conduct a summative evaluation of its internship course.

Specifically, the researchers explored how interns of this university, who had completed their internship courses, perceived their levels of proficiency vis-à-vis the competencies mandated by ACVREP.

## Methods

### Participants

This study was approved by the Human Research Protection Program at a Southwestern university. Participants completed the surveys as part of their internship on Blackboard Learn (Version SaaS, Original Course View 2012, Version 9.9). Between 2013 and 2018, 114 students enrolled in this internship course. Seventy-four (65%) of the interns' pre-and post-surveys were accessed while 35% (n=40) could not be recovered due to technological issues with archived courses. Of the 74 participants, two interns did not complete pre-test and a different intern did not complete post-test. Seventy-four percent of the participants (n = 55) were female; 25.7% (n=16) were male.

### Training

The internship (EDSP 5093: Internship in Special Education) is a 3-credit-hour, one-semester course taken at the end of the Orientation and Mobility Program at the university. University faculty arrange internship placement sites which can include rehabilitation centers for adults with visual impairments, public and residential schools, as well as summer camps for students with visual impairments for interns. Some interns work at multiple placement sites. Each intern is required to complete 250 hours of direct instruction to individuals with visual impairments, 40 hours of observation and training by orientation and mobility specialists, and 60 hours of planning, which can include writing lessons plans and reports, scheduling, and attending meetings of the individual with a visual impairment as well as education/rehabilitation team. Once interns have finished their internship, their onsite supervisor completes the Clinical Competency Evaluation Form provided by ACVREP. This form includes a description of each competency and a space next to each competency in which the supervisor signs off and provides the date on which the intern meets the competency.

Throughout the internship course, interns complete the following learning tasks: weekly progress reports, a digital portfolio, an internship site evaluation,

and an evaluation and implementation of an intervention project with a student with a visual impairment. The following documents are included in each intern's digital portfolio:

- a) a daily training schedule
- b) a description of the intern's students with visual impairments
- c) observation forms that are completed after observing lessons taught by specialists on orientation and mobility
- d) internship observation forms completed by onsite supervisor and/or university faculty
- e) lesson and unit plans
- f) orientation and mobility evaluation of a student with a visual impairment
- g) the ACVREP Clinical Competency Evaluation Form
- h) a cumulative log documenting internship teaching, observation, and planning hours,
- i) pre- and post-internship evaluation forms

Interns must also have one orientation and mobility lesson that they teach videotaped and use an evaluation form to evaluate themselves. In addition, interns' university instructor must observe them as they teach multiple lessons at their placement site.

In their intervention project, each intern must complete the University of Kentucky Assistive Technology Evaluation (UKAT) and Granite State College's Reflective Analysis of Student Work (RASW). In completing the UKAT, each intern works with an education/rehabilitation team of an individual with a visual impairment to conduct a needs assessment, select an assistive technology device related to orientation and mobility (e.g., an adaptive mobility device, a cane, a global positioning system, or a wheelchair), and implement an assistive technology intervention plan designed to teach a student with a visual impairment how to use the selected technology.

The RASW process provides a structured way for interns to reflect on how their lessons are impacting the outcomes for their orientation and mobility students. Important components of the RASW process include collecting data for each lesson on their students' progress toward meeting the goals or objectives of the lessons, engaging their professional learning networks to find ways to improve their students' outcomes, and identifying strategies that can be employed in future lessons to continue to

assist their students improve their orientation and mobility. Interns also develop a five-minute video in which they reflect on their use of the RASW process with their orientation and mobility students.

Collaboration is an integral part of the UKAT/RASW process. For the student with a visual impairment to be successful in the use of the selected orientation and mobility device, every member of the education/rehabilitation team must be involved in the assessment and intervention phases. To document their collaborative efforts, each intern is asked to write a summary of each team meeting. These summaries can include who attended the meeting, what was discussed and decided concerning the student's progress with the orientation and mobility device, and additional steps to be taken.

### Measures

Section III (“Orientation and Mobility Body of Knowledge”) of ACVREP’s Orientation and Mobility Specialist Certification Handbook lists a variety of competencies under different areas of domain knowledge. In the current study, a self-evaluation form was developed that enabled interns to rate their proficiency levels of these competencies using a 5-point Likert scale (1 = least competent to 5 = most competent) (Academy for Certification of Vision Rehabilitation and Education Professionals, 2014). Figure 1 shows the 13 competencies that this form assessed. Before beginning and after finishing the internship, the participants were asked to complete the self-evaluation form (see Figure 2 which is Supplementary Material).

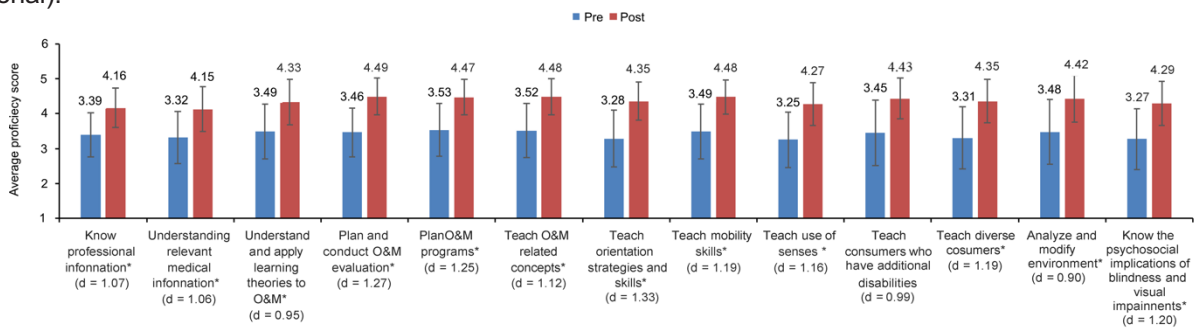
### Data Analysis

The interns’ self-evaluation results and their gender was summarized using descriptive statistics. A paired-samples t-test was performed for each of the 13 competencies to examine the extent to which the interns’ self-reported proficiency levels changed over their internships. Statistical significance was assessed using an alpha level of .05, and effect sizes (Cohen’s d) were also reported.

### Results

The results of the pre- and post-internship proficiency evaluations are summarized in Figure 1. Before beginning the internship, the interns considered themselves to be moderately or somewhat proficient in each of the 13 orientation and mobility competencies (M = 3.25–3.53, SD = 0.62–0.94). Their average levels of perceived proficiency were similar across the 13 competencies, but highest for the abilities “Plan O&M programs” (M = 3.53, SD = 0.76) and “Teach orientation and mobility related concepts”. (M = 3.52, SD = 0.77) followed by “Understand and apply learning theories to orientation and mobility ” (M = 3.49, SD = 0.79) and “Teach mobility skills” (M = 3.49, SD = 0.79). Their average levels of perceived proficiency were lowest for the skills “Teach use of senses” (M = 3.25, SD = 0.80) and “Know the psychosocial implications of blindness and visual impairments” (M = 3.27, SD = 0.87).

The interns’ proficiency levels were significantly improved after they completed their internship ( $t(70)=7.58-11.177$ ,  $p<.001$ ,  $d=0.90-1.33$ ).



\*p < .001 for paired-samples t-test.

Note. The number above each bar is average proficiency score, and the error bar represents standard deviation of the score. Effect size (Cohen’s d) for the difference in the proficiency scores before and after the internship.

Figure 1: Perceived proficiency in Orientation and Mobility competencies before and after the internship



The average gains in perceived competency were similar across the 12 competencies, but the greatest gains were observed for the skills “Teach orientation strategies and skills” ( $M = 4.35$ ,  $SD = 0.55$ ,  $d = 1.33$ ) and “Plan and conduct orientation and mobility evaluation” ( $M = 4.49$ ,  $SD = 0.52$ ,  $d = 1.27$ ). The interns also reported feeling significantly more competent in the skills in which they reported feeling the least confident on the pre-internship evaluation: “Teach use of senses” ( $M = 4.27$ ,  $SD = 0.61$ ,  $d = 1.16$ ) and “Know the psychosocial implications of blindness and visual impairments” ( $M = 4.29$ ,  $SD = 0.63$ ,  $d = 1.20$ ). The interns’ self-evaluation results and their gender was summarized using descriptive statistics. A paired-samples t-test was performed for each of the 13 competencies to examine the extent to which the interns’ self-reported proficiency levels changed over their internships. Statistical significance was assessed using an alpha level of .05, and effect sizes (Cohen’s  $d$ ) were also reported.

## Discussion

### Implications for Practitioners

Dewey (1938) argues that learning is optimal when individuals put theories into practice. While “field experience” may not be well defined in the literature (Nagro & deBettencourt, 2017), field experience has played a pivotal role in the preparation of teachers (Recchia & Puig, 2011). In line with this trend, the university’s Orientation and Mobility Program offers orientation and mobility students’ internships (field experiences) that allow them to apply the content knowledge and skills they have learned in their coursework by observing and working directly with students with visual impairments. With field experiences like these, research has shown that candidate teachers are more likely to be confident and successful when exposed to the complexity and diversity of the classroom (Ludlow, Gaylon, Keramidas, & Landers, 2007). Similarly, the results of the current study revealed that interns of this university’s program perceived themselves to be more proficient in all 13 competencies after they completed their internship, but not their actual competency. These results suggest that providing actual instruction in orientation and mobility to students with visual impairments increased the interns’ confidence in the knowledge and skills they had gained in their coursework. The more experience they have in real settings, the more active their learning becomes. This conclusion supports Darling-Hammond’s (2006) ar-

gument that classrooms are places in which students can put theories into action, practice these theories on their own, and experience reality.

The increases in proficiency that the interns reported for “The use of senses” and “The psychological implications of blindness/visual impairments” may be explained by their exposure during their internship to students with visual impairments. Students on their caseloads may have recently lost their vision or have been losing their vision and may have had psychological issues as a result. To provide effective lessons for their students, the interns may have needed to review sections of their textbooks that described the psychological implications for students with low vision or who are losing their vision.

Agencies that fund and approve preparation programs for orientation and mobility specialists (e.g. the United States Department of Education, AERBVI, respectively) require that these programs be evaluated. Since program evaluation is an ongoing process, faculty must continuously find ways to collect data from their students and stakeholders (e.g. agencies that provide funding and/or employ program students) including data on how proficient students perceive themselves to be vis-à-vis program competencies. Based on the results of this study, the faculty of the university’s Orientation and Mobility Program will also use the survey for orientation and mobility students to evaluate themselves before starting their personnel preparation program and upon completion of the program, not just for internship.

### Limitations

This study had four limitations. First, not every intern’s pre- and post-internship evaluation forms were available due to technological issues of the archived internship courses. Second, the orientation and mobility interns’ perceived competency of their skills was assessed, not the interns’ actual performance of these competencies. The participants’ perception may not accurately reflect their actual mastery of their knowledge and skill level. Third, since one of the authors was the instructor of record for the internship course, this situation may have affected how the interns completed the survey (Gay & Airasian, 2000). Fourth, a limitation of the study was the lack of demographic data on participants which means other factors could have contributed to survey responses.

## Conclusion

This study represents an initial attempt to examine interns' perceptions of their proficiency levels vis-à-vis orientation and mobility competencies before beginning and after completion of the internship. Future research can examine the correlation between interns' perception of competencies and their actual mastery of the competencies, not just during internship, but throughout the students' complete orientation and mobility program.

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