
students and O&M instructors and how we can support educational teams.

As a result of the collaboration and assessments, the authors have witnessed more classroom teachers at CSD using high-contrast materials within their classrooms, the use of slant boards to assist with posture, and increased awareness of braille and white canes by students. The older students we assessed have been introduced to the variety of resources available upon graduation such as companies that provide canes and accessibility products, Helen Keller International, and Lighthouse for the Blind. Due to our continued presence on the CSD campus, we have received ongoing referrals for students needing assessments for low vision and O&M.

Although working with a new population of students is a challenge, it reaps benefits and rewards. One such reward was the giving of name signs to the authors by the students who are deaf. Within the deaf culture a name sign can only be given by a person who is deaf to a hearing person once that person has become involved with the deaf community. The authors were deeply honored to be included in this tradition.

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Katie A. Smith, M.A., COMS, orientation and mobility instructor, California School for the Blind, 500 Walnut Avenue, Fremont, CA 94536; e-mail: <ksmith@csb-cd.ca.gov>. **Stephanie Herlich, M.A.**, assistive technology specialist, California School for the Blind; e-mail: <sherlich@csb-cd.ca.gov>.

Braille Training for Blindness Professionals at The Hadley School for the Blind

Christie Gilson

Ideal models for teaching students with visual impairments that take into account budgetary (Wittenstein, 2010) and staffing constraints, significant geographic dispersion, and low student ratios have yet to be widely implemented in the United States. The lack of sufficient degree programs to certify teachers of visually impaired students and rehabilitation professionals has been eloquently documented by many (Ambrose-Zaken & Bozeman, 2010; Huebner & Wiener, 2001). The itinerant model of teaching students with visual impairments leaves little time for continuing education for teachers of students with visual impairments (Brown & Beamish, 2012; Olmstead, 1991; Spungin, 2003).

Although braille instruction is understood to be the best literacy medium for most students with visual impairments (Kapperman & Sticken, 2003), barriers to its teaching are considerable. False assumptions about the waning need for braille usage due to burgeoning technology have been debunked by the academic literature (Gerber, 2003; Ryles, 1996) but remain ubiquitous nonetheless. Certified blindness professionals who have not provided braille instruction for several years may require brush-up training to recall the intricacies of formatting and contraction rules when welcoming new students on their caseloads (Gilson, 2014). Furthermore, very few general education teachers or paraeducators assigned to support the learning needs of students with visual impairments read braille themselves (Lewis & McKenzie, 2010).

Although blindness professionals may study braille independently through transcription certification courses and examinations such as those offered by the National Federation of the Blind (NFB) (Bell, 2010), NFB cautions that its courses are not intended for learning braille as

a personal reading and writing skill (National Federation of the Blind, 2014). Alternatively, The Hadley School for the Blind (Hadley) offers braille-instruction courses through digital correspondence that are delivered via the Internet in an asynchronous manner; students communicate with instructors via e-mail or telephone. More information about Hadley's courses can be found online at: <www.hadley.edu>.

HADLEY'S BRAILLE TRAINING PROGRAM FOR BLINDNESS PROFESSIONALS

Distance education has been a successful way of delivering braille course content through universities (Kim, Lee, & Skellenger, 2012) and state-run programs (Harrison, Kooch, & Alsup, 2003), as well as the Hadley School for the Blind (Gilson, 2014; Gilson & Xia, 2007; Hathaway, 1977; Wolffe, 2001). Hadley has offered teachers of students with visual impairments, other school professionals, rehabilitation practitioners, and other blindness service providers the opportunity to enroll in tuition-free introduction to alphabetic and contracted braille courses because of two iterations of a Braille Training Program grant from the Rehabilitation Services Administration, U.S. Department of Education.

Program evaluation design

The Department of Education funds allowed Hadley to hire Thomas Kenemore of Chicago State University to conduct focus groups and telephone interviews with the goal of creating three surveys designed to collect data from alphabetic and contracted braille students at course registration, upon course completion, and at six months following completion (Kenemore, 2010). The surveys were administered online, and survey completion was not a requirement for course enrollment or completion. For the past three fiscal years, the author has analyzed the survey data and evaluated the braille training program on an annual basis for Hadley. From its inaugural year in

Table 1
Survey response attrition rates for alphabetic and contracted braille courses for fiscal years 2010 to 2011, 2011 to 2012, and 2012 to 2013.

Fiscal year	Course	Survey number	Number of survey responders
2010–2011	Alphabetic	1	231
		2	158
		3	33
	Contracted	1	82
		2	37
		3	22
2011–2012	Alphabetic	1	225
		2	140
		3	25
	Contracted	1	77
		2	34
		3	11
2012–2013	Alphabetic	1	239
		2	126
		3	73
	Contracted	1	64
		2	30
		3	23

January 2001 to March 1, 2014, Hadley's alphabetic braille course enrolled 6,431 students who identified themselves as professionals in the blindness field. In comparison, Hadley's contracted braille course enrolled 2,358 students from January 2003 to March 1, 2014 (L. Dunlavy, personal communication, March 5, 2014).

As is the case with many data sets (Krathwohl, 1997), survey response attrition grew at a faster rate than did course completion. Table 1 displays these data. Survey responder data indicate merely that the first question on each survey was answered; they do not indicate that all questions on a given survey were answered.

PROFESSIONS OF THE COURSE PARTICIPANTS

Given the dearth of teachers of students with visual impairments in the United States (Spungin, 2003) and the varying levels of braille proficiency among them—not to mention among paraeducators—the braille courses of-

ferred by Hadley meet a critical need. Many teachers of students with visual impairments use the contracted braille course to refresh their braille skills in anticipation of adding braille readers to their caseloads (Gilson, 2014). The alphabetic braille course is taken by a wider variety of professionals, including paraeducators assigned to work with students with visual impairments, rehabilitation professionals, orientation and mobility specialists, non-profit agency personnel, and health care workers (Gilson, 2014). Familiarity of paraeducators with braille may encourage general educators to offer braille-rich classrooms (Swenson & Cozart, 2010) for students with and without disabilities—thereby destigmatizing the use of braille. Hadley’s braille courses are one of the few ways paraeducators and others interested in supporting people with visual impairments of all ages can learn braille at no cost (C. Young, personal communication, March 9, 2014). Rehabilitation teachers who have knowledge of alphabetic braille teach their clients to label objects with braille for increased independence. Orientation and mobility specialists prepare maps that are more concrete when braille labels are affixed.

COURSE DELIVERY METHOD

The majority of students from both the alphabetic and contracted courses offered by Hadley found distance education to be an ideal delivery method for the study of braille, citing self-pacing of content mastery and one-on-one attention from their instructors as positive aspects of these courses (Gilson, 2014). For example, students in both courses were asked whether instructional materials should be changed in the future. Out of 123 alphabetic survey responses collected in 2012 to 2013, only three students had suggestions for improvement. Hadley students lauded motivational strategies employed by instructors such as providing numerous opportunities

for success; receiving prompt, individualized feedback on assignments; playing braille games; sharing useful resources; and being encouraged (Gilson, 2014). Several representative quotations from alphabetic braille students from 2012 to 2013 who were asked to provide further feedback about their courses were:

I can’t wait to take contracted braille.

As a special ed[ucation] paraprofessional this [course] gave me a great deal of insight as to what my student was struggling with.

. . . [I] feel much more prepared to start grad[uate] school for teachers of the blind and visually impaired in the fall.

I loved this course and am already using braille at school with my student.

The contracted braille students who responded to the 2012–2013 survey (Gilson, 2014) said:

This was a tremendous help for me in working with our blind student in our school system.

Thank you for allowing me to become knowledgeable in braille, and for no charge! I believe that the little boy that I work with has a chance now to become a better reader and a more successful student.

In support of the above testimonies, those who completed Hadley’s alphabetic and contracted braille courses for professionals in the blindness field reported increased competence in braille writing and reading six months after completing the Hadley courses in all three fiscal years; see Table 2 (Gilson, 2011, 2012, 2014). The students were asked to rate their competence on a three-point Likert Scale (much more competent

Table 2

Student-rated competence in braille reading and writing six months after course completion for fiscal years 2010 to 2011, 2011 to 2012, and 2012 to 2013. Percentages in parentheses.

Fiscal year	Course	Total number of reading responses	Much more competent	Somewhat more competent	Total number of writing responses	Much more competent	Somewhat more competent
2010–2011	alpha.	33	20 (61)	11 (30)	33	20 (61)	11 (30)
	cont.	22	16 (72)	5 (23)	22	17 (77)	5 (23)
2011–2012	alpha.	25	15 (60)	10 (40)	24	14	10
	cont.	11	9 (81)	1 (9)	11	9	2
2012–2013	alpha.	71	53 (75)	18 (25)	71	50 (70)	21 (30)
	cont.	23	17 (74)	6 (26)	23	16 (70)	7 (30)

alpha. = alphabetic; cont. = contracted.

after taking the course, somewhat more competent after taking the course, and not much more competent after taking the course). For the sake of brevity, only the much more and somewhat more data are provided in Table 2. Subtracting the combined much more and somewhat more competent responses from the total number of students answering the question yields the not more competent responses. Rounded percentages of respondents are given in parentheses after response counts.

Perhaps the most telling data from the program evaluation of Hadley’s braille courses are those in Table 2. After all, professionals in the blindness field have the shared goal of increasing the self-efficacy of blind students and clients—whether the professionals focus on educational success (Erin, 2014), employment acquisition, or independent living. In fiscal years 2010–2011 and 2012–2013, numerous braille students in both courses noted the immediate application in their employment settings serving people with visual impairments of the braille reading and writing skills they had learned from their respective courses (Gilson, 2011, 2012, 2014).

Despite the meager budgets of nonprofit agencies, school districts, and rehabilitation entities in recent years, the tuition-free alphabetic and contracted braille courses offered by Hadley serve an important population segment within the blindness field as

well as the blindness community (that is, people who are blind or visually impaired). The flexibility offered to students through the distance education provided by Hadley has allowed comparatively large numbers of busy blindness professionals around the world to improve their braille skill sets. As the Unified English Braille Code’s implementation across the United States (D’Andrea, 2013; Dixon, 2011) draws near in January 2015 (for more information, see Braille Authority of North America, n.d.), Hadley stands poised to offer blindness professionals the chance to familiarize themselves with the changes to the literary code. Just as the braille codes throughout the world are updated as language and printing conventions reflect new realities, Hadley’s braille training will continue to evolve, meeting the needs of blindness professionals, people with visual impairments, and the family and friends of people experiencing vision loss.

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Christie Gilson, Ph.D., presidential appointee, J. William Fulbright Foreign Scholarship Board; mailing address: 76 Pheasant Drive, Kutztown, PA 19530; e-mail: <christie.gilson74@gmail.com>.

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