

**BEST: Year 2 Final Report  
October 2015 through September 2016**

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**Introduction**

The BEST project, which is an effort of four collaborative partners: American Council of the Blind of Ohio (ACBO), Assistive Technology and Accessible Educational Materials Center (AT & AEM Center), Ohio Center for Deafblind Education (OCDBE), and the Ohio State School for the Blind (OSSB), received funding for a five-year scope of work starting on October 1, 2014.

This report summarizes the work of year two (October 2015 through September 2016) of the BEST project, making summative claims about the project to answer the following four evaluation questions:

1. Did the BEST project accomplish the work it set out to accomplish?
2. Did the BEST project achieve target levels of quality, relevance, and usefulness?
3. Did the BEST project have a significant impact on the learning of educators in braille and technologies used to make braille accessible to students with visual impairments?
4. Was the BEST project responsive to the needs of key clients and stakeholders?

**Goals and Objectives**

The project goals are included here so that readers of this final report can refer to them readily in reference to the specific evaluation findings assembled thus far and discussed below.

Goal 1: Increase the braille competency of Ohio's educators through the provision of high-quality professional development and technical assistance that focus on results-driven outcomes.

- Objective 1.1: Provide professional development to educators.
- Objective 1.2: Provide technical assistance and support to educators.
- Objective 1.3: Provide avenues to communicate information and support to educators.

Goal 2: Increase the knowledge and use/implementation of braille and state-of-the-art technologies of Ohio educators through high-quality professional development/learning opportunities and technical assistance that focus on result-driven outcomes.

- Objective 2.1: Provide high-quality professional development training to educators in Ohio serving students who are blind and visually impaired or deafblind to increase their knowledge and use/implementation of braille and state-of-the-art technologies.
- Objective 2.2: Provide technical assistance and support relating to state-of-the-art technologies to educators in school districts by adults who are blind and technology experts.

Goal 3: Increase the competency of personnel providing quality braille materials for Ohio students who require braille through the provision of high quality professional development training and technical assistance support.

- Objective 3.1: Provide high quality professional development to educators related to the production of braille.
- Objective 3.2: Provide technical assistance to school districts that produce braille for Ohio schools.
- Objective 3.3: Expand braille production capacities at the local school district level.

#### Manage Project

- Management Task 1: Establish Advisory Board and participate on Board.
- Management Task 2: Lead and participate in BEST Leadership Meetings.
- Management Task 3: Hire External Evaluator (Dr. Aimee Howley).
- Management Task 4: Develop and disseminate BEST Brochure.
- Management Task 5: Contract with Qualified Personnel.

### **Methods**

The evaluation team used various methods for gathering information about the project: participant ratings of professional development (PD) sessions, pre- and post-assessments of PD sessions designed to teach braille and Duxbury, review of project documents (e.g., brochures, postings to the project Listserv), and discussions with BEST project staff.

Forms that allow participants to rate the professional development sessions in which they participate include four parts: (1) a set of questions that provide details about the quality of the session; (2) a set of questions that permit participants to judge the extent to which the session added value by increasing their knowledge and skills; (3) a set of questions that address the requirements of Government Performance and Results Act (GPRA) by allowing participants to rate the overall quality, relevance, and usefulness of the session; and (4) a set of open-ended questions enabling participants to describe what they learned and how they plan to use it as well as to provide suggestions to presenters and BEST project staff.

## Findings

This report of summative findings addresses the four evaluation questions highlighted on the first page of this report. Interpretations of the findings are provided in a section of the report, “Discussion and Recommendations,” which follows this section (“Findings”).

### **Did the BEST Project Accomplish the Work it Set Out to Accomplish?**

During the second year of the five-year project, the BEST staff performed activities that addressed all of the project’s objectives for Year 2. Appendix A presents tables that show accomplishments by objective. Note that the Blended Braille courses (*Blended Braille Course 1.1* given from August 2015-November 2015 and *Blended Basic Braille* given from August 2016-November 2016) span project years. Portions of each are represented in Tables 1-3.

### **Did the BEST Project Achieve Target Levels of Quality, Relevance, and Usefulness?**

On all counts, BEST project activities exceeded target levels of quality, relevance, and usefulness. Notably, a target of 3 on a 4-point scale would represent above-average quality, relevance, or usefulness. But, as the information in Tables 1, 2, and 3 shows, participants’ mean ratings of the quality, relevance, and usefulness of all project activities were above 3.0 and typically above 3.5 (i.e., for all but 3 measures in 72).

*Table 1: Mean Quality Ratings*

Time Frame	PD Activity	Average Quality Rating (4-point scale)
October 2015	UEB 1.1	3.93
October 2015	Duxbury I	3.90
October 2015	Duxbury II	4.00
October 2015	Lakota Local	4.00
October 2015	Miami Trace	4.00
October 2015	Maysville	4.00
November 2015	District Training (Cuyahoga ESC)	3.80
October-November 2015	Blended Braille Course 1.1	3.50
February 2016	AT Sharing Workshop	3.30
February 2016	UEB and Nemeth 1.1	4.00
March 2016	Duxbury I Follow-up	3.90
March 2016	Duxbury II Follow-up	4.00
March 2016	UEB and Nemeth	3.73
March 2016	Duxbury (Stark County ESC)	4.00
June 2016	Basic Nemeth	4.00
June 2016	Basic Braille	4.00
June 2016	Duxbury (Grafton)	3.73
June 2016	Large Print Training (Grafton)	3.67
July 2016	Advanced Braille	4.00
August 2016	Braille Production Setup (Ada)	4.00
August 2016	DBT Training (Grafton)	3.77
September 2016	BrailleNote	3.85
August-September 2016	Blended Basic Braille	3.86
September 2016	Scanning	3.52
September 2016	AT Family Conference*	3.74

\*converted from 5-point-scale average (4.67)

*Table 2: Mean Relevance Ratings*

Time Frame	PD Activity	Average Relevance Rating (4-point scale)
October 2015	UEB 1.1	3.93
October 2015	Duxbury I	3.80
October 2015	Duxbury II	4.00
October 2015	Lakota Local	4.00
October 2015	Miami Trace	4.00
October 2015	Maysville	4.00
November 2015	District Training (Cuyahoga ESC)	3.80

Time Frame	PD Activity	Average Relevance Rating (4-point scale)
October-November 2015	Blended Braille Course 1.1	3.67
February 2016	AT Sharing Workshop	3.30
February 2016	UEB and Nemeth 1.1	4.00
March 2016	Duxbury I Follow-up	3.90
March 2016	Duxbury II Follow-up	4.00
March 2016	UEB and Nemeth	3.82
March 2016	Duxbury (Stark County ESC)	4.00
June 2016	Basic Nemeth	3.90
June 2016	Basic Braille	3.90
June 2016	Duxbury (Grafton)	3.73
June 2016	Large Print Training (Grafton)	3.67
July 2016	Advanced Braille	4.00
August 2016	Braille Production Setup (Ada)	4.00
August 2016	DBT Training (Grafton)	3.92
August-September 2016	Blended Basic Braille	3.86
September 2016	BrailleNote	4.00
September 2016	Scanning	3.58
September 2016	AT Family Conference*	3.66

\*converted from 5-point-scale average (4.57)

*Table 3: Mean Usefulness Ratings*

Time Frame	PD Activity	Average Usefulness Rating (4-point scale)
October 2015	UEB 1.1	3.39
October 2015	Duxbury I	3.80
October 2015	Duxbury II	4.00
October 2015	Lakota Local	4.00
October 2015	Miami Trace	4.00
October 2015	Maysville	4.00
November 2015	District Training (Cuyahoga ESC)	3.80
October-November 2015	Blended Braille Course 1.1	3.67
February 2016	AT Sharing Workshop	3.20
February 2016	UEB and Nemeth 1.1	3.95
March 2016	Duxbury I Follow-up	3.90
March 2016	Duxbury II Follow-up	4.00
March 2016	UEB and Nemeth	3.86
March 2016	Duxbury (Stark County ESC)	4.00
June 2016	Basic Nemeth	3.90
June 2016	Basic Braille	4.00

Time Frame	PD Activity	Average Usefulness Rating (4-point scale)
June 2016	Duxbury (Grafton)	3.80
June 2016	Large Print Training (Grafton)	3.50
July 2016	Advanced Braille	4.00
August 2016	Braille Production Setup (Ada)	4.00
August 2016	DBT Training (Grafton)	3.92
August-September 2016	Blended Basic Braille	3.86
September 2016	BrailleNote	4.00
September 2016	Scanning	3.85
September 2016	AT Family Conference*	3.86

\* converted from 5-point-scale average (4.82)

### Did the BEST Project Have a Significant Impact on Learning?

The impact of project activities was measured in two ways. First, in the training sessions participants provided self-ratings of their levels of knowledge and skill before and after the session. Second, pre- and post-test scores were obtained for participants in two training sessions: Basic Braille and Basic Nemeth.

Both approaches to measuring impact revealed very high levels of impact. Table 4 presents effect sizes as assessed through participants' self-ratings. It's important to note that an effect size of .8 represents a high level of impact, and that no effect size presented in the table is lower than 1.25. Five of the 17 reported effect sizes are above 2.0. Effect sizes are not calculated when the number of responding participants is less than 10.

*Table 4: Effect Sizes Based on Participants' Self-ratings*

Time Frame	PD Activity	Effect Size (based on participants' self-ratings)
October 2015	UEB 1.1	2.93
October 2015	Duxbury I	2.04
October 2015	Duxbury II	1.35
October 2015	Lakota Local	n/a
October 2015	Miami Trace	n/a
October 2015	Maysville	n/a
November 2015	District Training (Cuyahoga ESC)	1.43
November 2015	Blended Braille Course 1.1	1.27
February 2016	AT Sharing Workshop	1.37
February 2016	UEB and Nemeth 1.1	1.80
March 2016	Duxbury I Follow-up	1.28
March 2016	Duxbury II Follow-up	1.84

Time Frame	PD Activity	Effect Size (based on participants' self-ratings)
March 2016	UEB and Nemeth	1.30
March 2016	Duxbury (Stark County ESC)	n/a
June 2016	Basic Nemeth	2.17
June 2016	Basic Braille	2.31
June 2016	Duxbury (Grafton)	1.97
June 2016	Large Print Training (Grafton)	2.89
July 2016	Advanced Braille	1.13
August 2016	Braille Production Setup (Ada)	n/a
August 2016	DBT Training (Grafton)	1.97
August-September 2016	Blended Basic Braille	n/a
September 2016	BrailleNote	n/a
September 2016	Scanning	1.49
October 2016	AT Family Conference	n/a

Impact based on the comparison of pre- and post-test scores in two courses also showed very high levels of impact (both above ES = 2.00). Table 5 presents these effect sizes. Note that effect sizes for participants' self-assessed learning for these two courses (see Table 4) corresponds closely to their pre- to-post-test effect sizes.

*Table 5: Effect Sizes Based on Pre- to Post-test Comparisons*

Time Frame	PD Activity	Effect Size (based on pre- to post-test comparisons)
June, 2016	Basic Nemeth	2.27
June, 2016	Basic Braille	2.01

### **Was the BEST Project Responsive to the Needs of Key Clients and Stakeholders?**

Participant ratings of Advisory Board meetings provide one way to gauge project responsiveness. For both meetings, ratings for the quality, relevance, and usefulness of the meeting were high. Table 6 presents these findings.

*Table 6: Mean Advisory Board Participant Ratings on a 1 (low) to 4 (high) Scale*

Meeting	Average Quality	Average Relevance	Average Usefulness
December 10, 2015	4.00	4.00	4.00
June 2, 2016	3.80	3.70	3.70

Another indicator of responsiveness are the numbers of times that BEST provided technical assistance to client groups. These data are presented in the tables in the Appendix.

### **Discussion and Recommendations**

Overall, the evidence collected through the external evaluation indicates that the BEST project accomplished what it set out to accomplish in Project Year Two. Furthermore, wherever client and participant measures are available (i.e., for all professional development activities and advisory activities), they indicate high levels of participant satisfaction as well as high levels of impact on the learning of educators, transcribers, and other adult participants.



Appendix A  
Accomplishments by Objective

**Objective 1.1 Provide professional development to educators.**

Activity	Year 2	Level of Completion
A. Statewide UEB Training	October 16, 2015	Completed
B. Statewide One-day How to Deal with Nemeth and UEB	February 26, 2016	Completed
C. Braille Immersion Camp with support from OSU Interns	OSSB TVIs and OSU Interns	Completed
D. Weeklong Summer Basic Braille Course for educators	June 13-16, 2016	Completed
E. Weeklong Summer Basic Nemeth Course for educators	June 20-23, 2016	Completed
F. Weeklong Summer Advanced Braille Course for educators	July 11-14, 2016	Completed
G. 14-week Blended Basic Braille Course	October 14, 21, 28; Nov. 4, 10, 18, 2015 (Blended Braille Course 1.1) August 3, 10, 17, 24, 31; September 7, 14, 21, 28, 2016 (Blended Basic Braille)	Completed (full course including Year 2 portion) Completed (Year 2 portion)

**Objective 1.2 Provide technical assistance and support to educators.**

Activity	Year 2	Level of Completion
A. Technical assistance (TA) through email and phone for educators/TVIs of students who attended the Braille Immersion Camp.	June 7-12, 2015 Follow-up UEB Training by OSU - November 7, 2015	Completed
B. Follow-up email and phone technical assistance for 14-week Blended Basic Braille Course	Robin Finley and Dan Kelley TA Hours – 172.50	Completed
C. Technical assistance services regarding assistive technology hardware and software in the areas of braille literacy, production and technology for educators	Jerry Whittaker and Katie Robinson District Trainings TA Hours – 479.50 AT & Techniques Sharing Workshop – February 4, 2016	Completed

**Objective 1.3 Provide avenues to communicate information and support to educators.**

Activity	Year 2	Level of Completion
A. Listserv posts with braille initiatives such as Braille Challenge, Seedlings, NFB Bell Program, AFB Dots for Literacy	3 CISAM Listservs BEST Community of Practice	Completed
B. BEST/CISAM Facebook and Twitter accounts to post announcements, updates, and grant information	Facebook and Twitter	Completed
C. Links on BEST website to post resources to assistive technology	BEST website UEB links on CISAM website UEB Transition Plan on website	Completed

**Objective 2.1 Provide high-quality professional development training to educators in Ohio serving students who are blind and visually impaired or deafblind to increase their knowledge and use/implementation of braille and state-of-the-art technologies.**

Activity	Year 2	Level of Completion
A. Assistive Technology (AT) Conference including families, in collaboration with ACBO, CISAM, OCDBE & OSSB including AT Vendor exhibits	September 24, 2016	Completed
B. Follow-up professional development training with AT Vendors from the AT Conference	BrailleNote – Sept 13, 2016 Brailiant Training Sept 14	Completed Cancelled

**Objective 2.2 Provide technical assistance and support relating to state of the art technologies to educators in school districts by adults who are blind and technology experts.**

Activity	Year 2	Level of Completion
A. Email, phone and on-site support from collaborative partners regarding technology displayed at AT Conference	Vendors/Partners	Completed
B. Technical assistance relating to assistive technologies and computer hardware and software by CISAM technical assistance consultants	Jerry Whittaker/Katie Robinson TA Hours – 479.50	Completed

**Objective 3.1 Provide high quality professional development to educators related to the production of braille.**

Activity	Year 2	Level of Completion
A. Professional development activities on the production of braille	Duxbury I – October 7-8, 2015 – Susan Christensen	Completed
	Duxbury II – October 29-30, 2015 – Susan Christensen	Completed
	Statewide Scanning – September 7-8, 2016 – Jerry Whittaker	Completed
B. Follow-up training to the initial training	Duxbury I – March 8-9, 2016 – Susan Christensen	Completed
	Duxbury II – March 10, 2016 – Susan Christensen	Completed
C. Participant portfolios – end of training activity	Duxbury I and II Susan Christensen	Completed

**Objective 3.2 Provide technical assistance to school districts that produce braille for Ohio schools.**

Activity	Year 2	Level of Completion
A. Technical assistance to educators after the initial training	Jerry Whittaker TA Hours - 57.00	Completed
B. On-site technical assistance to Local Braille Production Centers (LBPC)	Jerry Whittaker /Katie Robinson TA Hours - 66.50	Completed

**Objective 3.3 Expand braille production capacities at the local school district level.**

Activity	Year 2	Level of Completion
A. Establishment of LBPCs in Ohio school districts	Selected and installed 2 LBPCs as written in grant: -ESC of Jefferson County -Ada Exempted Village	Completed
B. Technical assistance, support and training	Duxbury and Scanning TA Hours – 50.75	Completed

**Objective 3.4 Provide training and support to Grafton Braille Service Center (GBSC) Prison Braille Program.**

Activity	Year 2	Level of Completion
A. Professional development training at GBSC Prison Braille Program	UEB and Nemeth – March 24, 2016 Accessible Formats – Templates and Macros – June 22-23, 2016 Duxbury – June 28-29, 2016 Duxbury – August 10-11, 2016	Completed  Completed Completed Completed
B. Technical Assistance, support and training	Email, phone, and on-site TA Hours – 140.50	Completed

**Manage Project**

Activity	Year 2	Level of Completion
A. Advisory Board Meeting/Teleconferences	December 10, 2015 – 10:00am-12:00pm June 2, 2016 – 10:00am-12:00pm	Completed Completed
B. BEST Leadership Meetings	October 15, 2015 – 8:30am– 10:00am February 25, 2016 – 8:30am-10:00am August 4, 2016 – 8:30am-10:00am	Completed  Completed Completed
C. Monthly Evaluation Meetings	Monthly	Completed
D. Update and Disseminate BEST Brochure	Update as needed	Completed
E. Contract with Qualified Personnel	Susan Christensen – Duxbury & TA Robin Finley –Braille Immersion Camp, Follow-up TA and Blended Braille Course Lauri Kaplan – AT Conference Aimee Howley – External Evaluation Dan Kelley – Blended Braille Course Shelley Mack – Summer Braille Courses, UEB Trainings	Completed

Activity	Year 2	Level of Completion
	Ceil Peirano – Braille Immersion Camp and Follow-up TA Jerry Whittaker – TA, Consultation, Professional Development, Scanning	