U.S. Department of Education

Washington, D.C. 20202-5335

IES Annual Performance Report

CFDA # 84.324A
PR/Award # R324A160139
Budget Period # 1
Report Type: Annual Performance

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U.S. Department of Education
Grant Performance Report
Cover Sheet (ED 524B)

Check only one box per Program Office instructions.

[X] **Annual Performance Report** [ ] **Final Performance Report**

General Information

1. PR/Award #: R324A160139
(Block 5 of the Grant Award Notification - 11 Characters.)

2. Grantee NCES ID#:
(See instructions. Up to 12 Characters.)

3. Project Title: Special Education Research Program
(Enter the same title as on the approved application.)

4. Grantee Name: UNIVERSITY OF NORTHERN COLORADO
(Block 1 of the Grant Award Notification.)

5. Grantee Address:
(See instructions.)
Street: 501 20TH ST
City: GREELEY
State: CO Zip: 80639 Zip+4: 6900

6. Project Director:
(See instructions.)
First Name:Kay Last Name:Ferrell Title:Principal Investigator
Phone #: 9703511653 Fax #: 9703511934 Email Address: kay.ferrell@unco.edu

Reporting Period Information ***(See instructions.)***

7. Reporting Period: From: 07/01/2016 To: 02/28/2017
(mm/dd/yyyy)

Budget Expenditures ***(To be completed by your Business Office. See instructions. Also see Section B.)***

8. Budget Expenditures:

	Federal Grant Funds	**Non-Federal Funds** ***(Match/Cost Share)***
a. Previous Budget Period	0	0
b. Current Budget Period	286,453	0
c. Entire Project Period *(For Final Performance Reports only)*		

Indirect Cost Information ***(To be completed by your Business Office. See instructions.)***

9. Indirect Costs

a. Are you claiming indirect costs under this grant? If yes, please indicate which of the following applies to your grant? ● Yes ❍ No

b. The grantee has an Indirect Cost Rate Agreement approved by the Federal Government: ● Yes ❍ No

The period covered by the Indirect Cost Rate Agreement is : From: 07/01/2016 To:06/30/2018 (mm/dd/yyyy)

The approving Federal agency is : ❍ ED ● Other *(Please specify)*:Department of Health & Human Services

The Indirect Cost Rate is : 37 %

Type of Rate *(For Final Performance Reports Only)*: ❍ Provisional ❍ Final ❍ Other *(Please specify):*

c. The grantee is not a State, local government, or Indian tribe, and is using the de minimus rate of 10% of modified total direct costs (MTDC) in compliance with 2 CFR 200.414(f) ❍ Yes ❍ No

d. The grantee is funded under a Restricted Rate Program and is you using a restricted indirect cost rate that either :

❍ Is included in your approved Indirect Cost Rate Agreement ❍ Complies with 34 CFR 76.564(c)(2)?

e. The grantee is funded under a Training Rate Program and:

❍ Is recovering indirect cost using 8 percent of MTDC in compliance with 34 CFR 75.562(c)(2)

❍ Is recovering indirect costs using its actual negotiated indirect cost rate

Human Subjects (Annual Institutional Review Board (IRB) Certification) ***(See instructions.)***

10. Is the annual certification of Institutional Review Board (IRB) approval attached? ● Yes ❍ No ❍ N/A

Performance Measures Status and Certification ***(See instructions.)***

11. Performance Measures Status

a. Are complete data on performance measures for the current budget period included in the Project Status Chart? ● Yes ○ No

b. If no, when will the data be available and submitted to the Department? (mm/dd/yyyy)

12. By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate and the expenditures, disbursements, and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-33812).Furthermore, to the best of my knowledge and belief, all data in this performance report are true, complete, and correct and the report fully discloses all known weaknesses concerning the accuracy, reliability, and completeness of data reported.

Name of Authorized Representative: Robert P Houser	Title: AVP for Research/Exec. Dir., OSP
Signature:	Date:

Grant Performance Report (ED 524B) Executive Summary Attachment:

Title : Executive Summary
File : **R324A160139_Executive_Summary.pdf**

An Intervention for Infants and Toddlers with Visual Impairment:
Independence Through the Mealtime Routines Model
R324A160139

Executive Summary of the Annual Report
Project Year One (7/1/2016 – 2/28/2017)

This Institute of Education Sciences annual report documents the first eight months of a project examining independent eating skills of infants with visual impairment. The primary goal of the Mealtime Routines for Visual Impairment (MRVI) Intervention Project is to create a fully developed intervention that will assist Teachers of Students with Visual Impairment in Early Intervention (TSVI-EIs) to work with families in supporting infants and toddlers with visual impairment in mealtime independence. At the completion of this project we will provide evidence of the usability, feasibility, fidelity of implementation, and promise of the MRVI Intervention.

Accomplishments. At the time of this report, project staff have accomplished the following benchmarks from its Performance Agreement:

> For Study One: (a) obtain mailing lists for survey participants; (b) recruit participants; (c) create survey; (d) conduct survey; and (e) analyze survey.

Study One was completed in November 2016. Results from Study One indicate that the majority of both visual impairment and early intervention personnel who responded to the survey felt that they did not have sufficient training or experience to support families in the area of mealtime independence. In addition, an indication that the respondents lacked knowledge of key developmental facts regarding feeding and mealtimes was demonstrated by a mean score on the Typical Mealtime Development Quiz (TMDQ) of 7.54 of a possible 15 points.

> For Studies Two-Four: (f) recruit teacher and family participants; (g) random assignment of teachers to coaching/no coaching conditions; (h) train TSVI-EIs; and (i) implement the 3 studies.

Study Two was completed in January 2017. Results from Study Two indicate that the TSVI-EIs participating in the training made small but significant progress on the same TMDQ quiz following training. Considerable value was attributed to the training by the TSVI-EIs in their Practitioner Impression Journals, and an evaluation of the training after returning home highlighted successes and frustrations. Information from both studies have been used to revise the training and elements of the MRVI Intervention.

Continuous data collection, analysis, and review for Studies Three and Four have been underway since February 2017 and will continue until December 2017. Data are collected

monthly and analyzed quarterly. TSVI-EIs were randomly assigned to coaching and no-coaching groups, and then randomly assigned to one of three coaches.

Products. Project staff were invited to present at the Western Regional Early Intervention Conference in June 2017, and two proposals have been submitted for presentation at the Council for Exceptional Children Division for Early Childhood Conference and the Food and Nutrition Conference and Exposition (both in October 2017). A project website is under development, and the report details several instances of technology applications, including Microsoft's OneDrive (which is FERPA and HIPAA compliant), Canvas, Dedoose, and the Tablet-Based Data Collection Tool (TBDCT), developed specifically for this project. Several data collection instruments have been created for the project and are described in the report.

Participants and Collaborating Organizations. Key personnel and consultants remain involved in the project. All have assumed responsibility for various aspects of project development and are currently scoring assessments for Studies Three and Four, following a protocol where at least two individuals score each assessment but are randomly assigned each month to view the videos of different participants. TSVI-EI Participants are employed at collaborating organizations that serve infants and toddlers with visual impairment in Alaska, Illinois, Kentucky, Missouri, New Mexico, Ohio, Utah, and Washington. A Denver agency provided space at no cost for the Study Two training.

Changes/Problems. As the project waited for IRB approval from the University of Northern Colorado, some project tasks (primarily around recruitment of subjects) were slightly delayed. The Study One survey did not meet its projected goal of 400-500 respondents, largely due to one mailing list that was only available by postal address rather than email. Performance on the Typical Mealtime Development Quiz was informative in both Study One and Study Two, and the Study Two training overall demonstrated high satisfaction and new knowledge for participants. Other problems included (a) families declining to participate after the corresponding TSVI-EI had already been trained, and (b) a planned assessment that was judged to be inappropriate for use with infants who are visually impaired. All of these issues have been addressed.

The project is on task with its timeline and anticipates no problems in meeting future performance objectives.

Project Narrative - Additional Information

Title : Additional Information

Attachment:

File :

1. **1_MRVI_Study1_Findings_Report_Shaw.pdf**
2. **2_MRVI_Study2_Pre_Post_TMDQ_Shaw.pdf**
3. **3_MRVI_Study2_Practitioner_Impression_Journal.pdf**
4. **4_MRVI_Study2_Evaluation.pdf**
5. **5_MRVI_Greeley_Tribune_articles.pdf**
6. **6_MRVI_One_Drive_Video_Scoring_File.pdf**
7. **7_MRVI_Data_Entry_TBDCT_for_Participants.pdf**
8. **8_MRVI_Data_Entry_for_Researchers.pdf**
9. **9_MRVI_Canvas_Courses_3_3_2017.pdf**
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University of Northern Colorado MRVI Intervention Study
An Institute of Education Sciences Project

The Education and Experience Survey and Typical Mealtime Quiz Findings

Reported by: Rose Shaw, Ph.D.
November 21, 2016

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Background

The "Qualtrics Survey" went live on September 30, 2016 and was closed on November 15, 2016. The hyperlink to the survey was sent by U.S. Postal Service mail to 842 individuals on a Council for Exceptional Children list, and to 958 individuals via email (664 to early intervention VI; 294 to Association for Education and Rehabilitation of the Blind and Visually Impaired). Some recipients forwarded the hyperlink to others (e.g., Paths to Literacy from Perkins and VI Preschool Seminar).

The introduction to the survey clarified the purpose of the survey:

> We are inviting teachers of students with visual impairment and early interventionists who have every worked with infants and toddlers with visual impairment (ages birth to three years) to participate in this survey. In order to be effective in assisting families in having realistic self-feeding and utensil skills, as well as creating mealtime routines, it is important to know the range of typical mealtime skills that should be acquired by age three. This survey will help us to know what early intervention providers currently working in the field know about typical mealtime development and the different ways they learned this knowledge. We are hoping to hear from the widest possible number of professionals in the fields of early childhood and blindness/visual impairment. As providers in early intervention, we know your responses are critical in creating a meaningful routine-based intervention model for families.

The survey included fourteen questions about respondents' education and experiences working with young children with visual impairments at mealtime and a fifteen question Typical Mealtime Development Quiz.

Findings in this report include descriptive information relevant to the MRVI Intervention Study and findings related to the research questions:

1. What is the current level of knowledge expressed by TSVIs (Teachers of Students with Visual Impairment) regarding mealtime development of young children with visual impairment?
2. Is there a relationship between additional Professional Development (PD) and experiences to scores on the Mealtime Development assessment?

Descriptions: Respondents' Professional Demographics and Experiences

- The survey was completed by 119 Teachers of Students with Visual Impairment (TSVIs) and 92 of the TSVIs responded to all fifteen survey items.

- For 203 respondents, the mean number of years they worked with young children (ages birth to three years) with visual impairment and their families was 13.4 years (std. dev. = 10.6). For 112 TSVIs the mean was 15.46 years (std. dev. = 10.6).

- The mean number of children with visual impairment ages birth to three years that are currently included in the caseload of 162 respondents was 9.6 (std. dev. = 9.4). For 89 TSVIs the mean was 11.7 (std. dev. = 9.5).

Experience with Mealtime Challenges of Visually Impaired Children

Respondents reported approximate percentages of families they worked with who had young children with visual impairment that experienced mealtime challenges (examples: eating limited textures or types of food, consuming minimal amounts, difficulties in weight gain or maintenance or behavioral issues). The fixed choices (0–25%; 26-50%; 51-75%; 76-100%) and numbers/percentages of 197 respondents who selected the listed choice are displayed below.

Mealtime Challenges Experienced by Families with Visually Impaired Children

0 to 25%	26 to 50%	51 to 75%	76 to 100%
24 (12%)	49 (25%)	73 (37%)	51 (26%)

The survey listed four types of possible additional support provided these children were listed. The following is a summary of the 189 responses with N equal to the number of respondents who selected the listed response.

Types of Additional Support Provided by 189 Respondents

N	Percent	Description of Additional Support
166	88%	Medical (e.g., feeding tubes, swallow studies, attending ongoing feeding therapy)
106	56%	Nutritionist/registered dietitian
18	10%	Early intervention: speech/language pathologist
18	10%	Early intervention: occupational therapist

These were the other types of additional support provided:

- Physical Therapy (N = 4)
- Addition of Pediasure to their diet
- Assistive Technology
- Behavior specialists (early childhood, psychologist, etc.)
- Blind Foundation, Adaptive Daily Living Skills specialist
- Child Psychologist and GI were also used with some children
- Consultant and Role Release with Teacher for Blind/Visually Impaired
- Contact with other parents, TVI support
- Deaf Educator
- Early Intervention Specialist,
- Early Intervention: Developmental Intervention
- Early Intervention: ECSE/TVI to help with education and modifications to make around mealtimes for children with visual impairments.
- Occupational Therapist (school age)
- Speech - feeding therapists
- Teacher for the Blind Visually Impaired
- Three out of four early intervention students have feeding issues have multiple impairments. They are tube fed and receive nothing by mouth.
- TVI
- Vision Services

Types of Education Received by Respondents for Supporting Families

Respondents were asked if they received any specific types of pre-service education around supporting families of young children with visual impairment and mealtime development skills. Only eight individuals reported this type of pre-service education, and seven of them identified specific pre-service programs and/or universities.

- Northern Illinois University
- The VI Consortium sponsored through George Mason University (Fairfax, VA)
- University of Alabama, Birmingham
- University of Utah early childhood special education
- Vanderbilt University
- INSITE program from Utah.
- University of Pittsburgh b-3 Masters

Numbers and percentages of 191 respondents that selected response/s from a list of seven other types of educational opportunities for supporting mealtime of families of young children with visual impairment are displayed in the following table.

Types of Professional Development Experienced by 191 Respondents

N	Percent	Description of Additional Support
33	17%	No, I have not accessed any type of professional development in this area.
75	39%	Conference sessions about mealtime development skills
76	40%	Training session about mealtime development skills
66	35%	Books in professional resource libraries
74	39%	Research articles in professional journals
89	47%	Websites or social media
11	6%	Self-paced online modules

These were other professional development experiences reported by the 191 respondents:

- As an OT it is part of our role to address mealtime development.
- I ask other professionals on listservs or send emails
- Brochure from Blind Babies
- One on line video training (archived) presented by a Perkins School OT aimed at eating skills (all ages)
- Co-treating with speech therapist that specialize in feeding issues
- Collaboration with feeding specialists and OT's specific to child's treatment and intervention.
- Collaboration with Occupational Therapists during Early Intervention Team meetings
- Conference with OT and SLP support staff
- Consult with colleagues including OTs and SLPs with feeding training.
- Consultation with a teacher for the visually impaired
- Consultations with feeding, nutritionists, OT, SLP, and multitudes of parents. Parents and caregivers are consistently the best resource for any problem solving I do with my clients.
- Consulted with speech and occupational therapists

- Direct observations and teaming with experts in the area of mealtime with children who are visually impaired.
- Discussions with OT and SLP during TTA meetings
- Early Intervention Presentations by OT in faculty meetings
- Earned Pediatric Specialist Certification through the American Physical Therapy Association. Did not solely focus on "mealtime skills" for children with VI but encompassed advanced PT skills for working with children with differing impairments.

Respondents reported whether or not they felt they had sufficient experience/training to support families and young children with visual impairments in the area of feeding/mealtime skills. Sixty-eight (38%) of the 178 respondents recorded, "Yes", and 110 (62%) of the respondents reported, "No." The frequency distributions of responses were not significantly different for TSVIs and respondents who were not TSVIs (Chi-square = 0.99; $p < 0.3194$).

Do you have sufficient training?

Group	Yes	No	Totals
TSVI	35	65	**100 responses**
Not TSVI	33	45	**78 responses**
Totals	**68**	**110**	**178 responses**

The copied and pasted reasons for the yes or no response are included in Appendix A.

Collaboration with Other Early Intervention Team Members

There were 192 responses to the question: Have you supported the families of your children with visual impairment with mealtime development skills by collaborating with other early intervention team members on mealtime routines: 163 respondents reported "Yes" and 29 reported "No".

Availability of Professional Development Resources

Resources available in respondents' geographical areas to contact for information around feeding/eating were identified from a list of four possibilities. Fifteen of the 159 respondents selected the response, "I have no resources in my geographical area to contact." The other responses are summarized below.

Types of Feeding/Eating Resources Available in Respondents' Geographical Areas

N	Percent	Description of Resources
94	59%	Hospital-based feeding therapy program
63	40%	Private feeding therapy program
104	65%	Nutritionist/Registered dietitian
85	53%	Developmental pediatrician

Other resources were reported by 63 respondents. These responses are displayed in the Appendix.

Location of Respondents with State Licensure, Endorsement or Certification

One hundred and five (105) respondents reported having state licensure, endorsement or certification in Visual Impairment in 32 states and two countries (New Zealand and Australia). One hundred and three

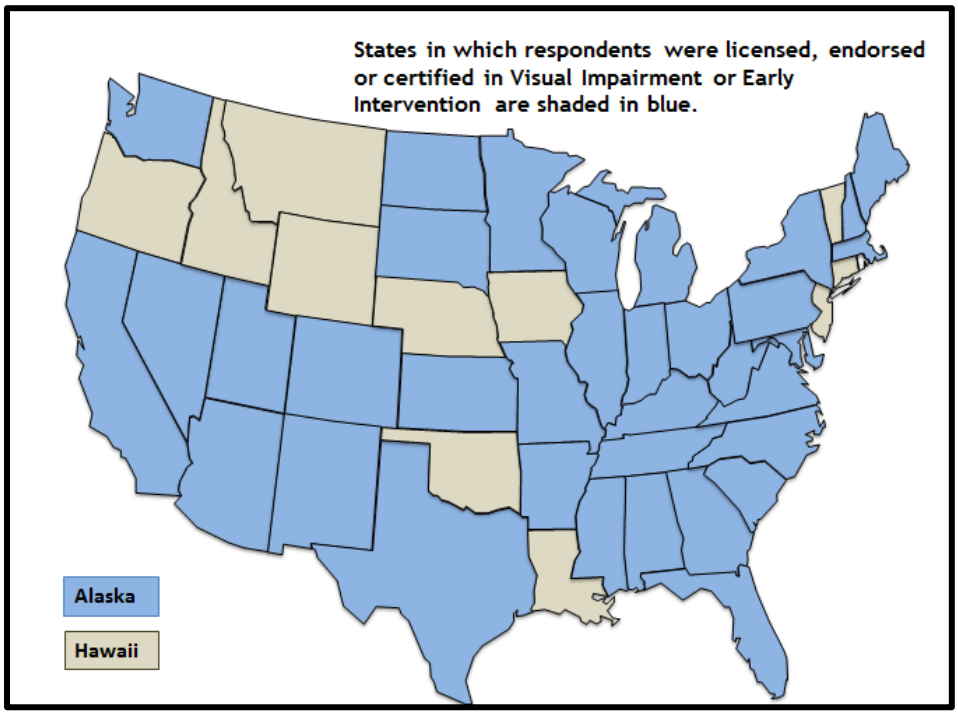
(103) respondents reported having state licensure, endorsement or certification in Early Intervention in 33 states and two countries (New Zealand and Australia). Seventy-five (75) respondents had state licensure, endorsement or certification in both Visual Impairment and Early Intervention. States in which five or more respondents reported being licensed, endorsed or certified by five or more individuals are displayed in the following two tables.

States in which Respondents were Licensed, Endorsed or Certified

Visual Impairment Licensure, Endorsement or Certification	
State	**Number of Respondents**
MO	13
IL	18
WA	7
VA	9
CO	7
KS	9
NM	8
UT	9
NY	6
AZ	5
ND	5
TX	5

Early Intervention Licensure, Endorsement or Certification	
State	**Number of Respondents**
IL	14
CO	12
VA	12
MO	9
UT	9
KS	8
NM	8
KY	7

The states represented by individuals who were licensed, endorsed or certified in Visual Impairment or Early Intervention or both are highlighted in blue in the following map.



Findings: Current Comfort and Future Interest in PD

Respondents' rated (0 = not at all, 1 = fairly, 2 = somewhat and 3 = very) their level of comfort with five listed topics and level of interest in participating in more training on each topic. The five topic areas were:

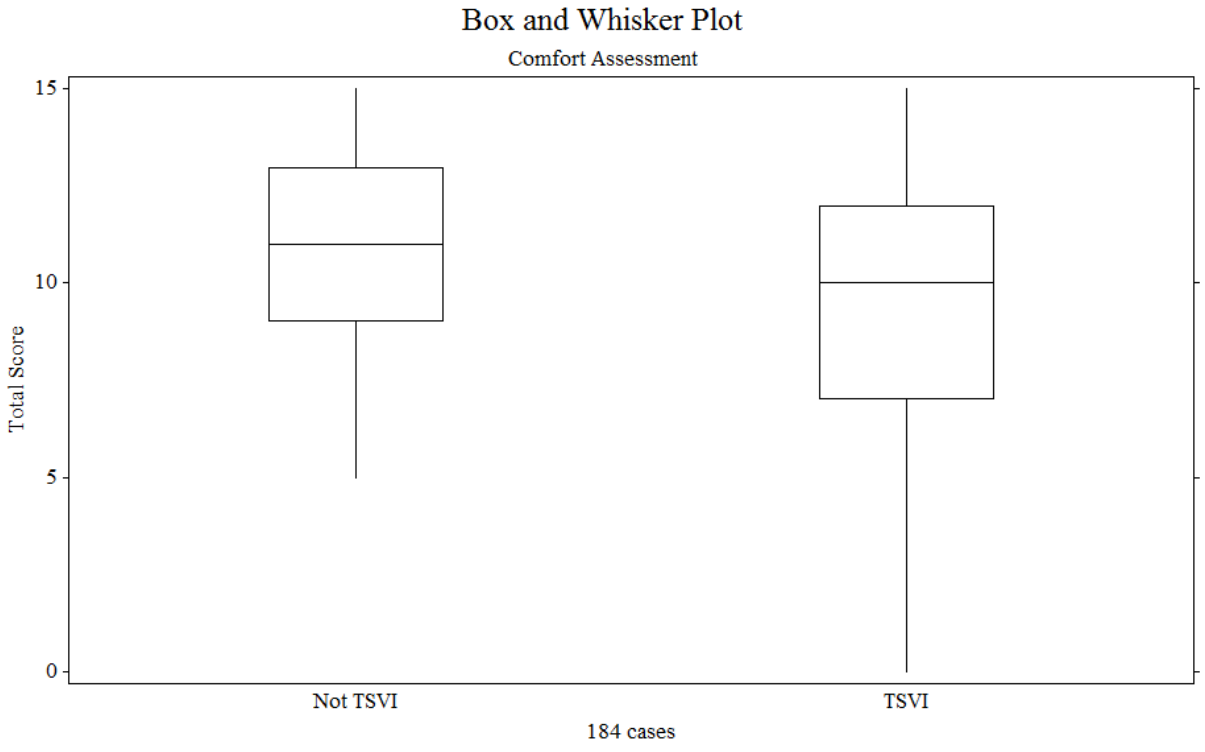
1. Infant mealtime development skills
2. Toddler mealtime development skills
3. Recognizing age appropriate mealtime utensil use skills
4. Supporting a family in setting up a mealtime routine
5. When to make a referral to a medical professional

These five topic areas comprised the two assessments, the Interest Assessment and the Comfort Assessment. The possible total score for each assessment was 15. Internal consistency was excellent for the Interest Assessment (Cronbach's alpha equal to 0.92) and good for the Comfort Assessment (Cronbach's alpha equal to 0.88). The correlation (-0.19) between the two total scores was significant ($p < 0.0110$) – the higher the Comfort Total Score, the lower the Interest (in PD) Total Score.

Descriptive Statistics for the Comfort and Interest Assessments

Assessment	N	Mean	Std. Dev.	Correlation Coefficient
Comfort	172	11.64	3.68	-0.19
Interest	186	10.11	3.30	

Mean ratings of comfort with the five topics were significantly different for TSVIs and respondents who were not TSVIs ($t = 3.26$, $p < 0.0013$).The mean Comfort Total Score for the TSVIs was 9.47 (std. dev. 3.51) and the mean Comfort Total Score for the respondents that were not TSVIs (not-TSVIs) was 10.97 (std. dev. 2.78). The following box-and-whisker plot displays the distributions of Comfort Total Scores TSVIs and respondents who were not TSVIs.

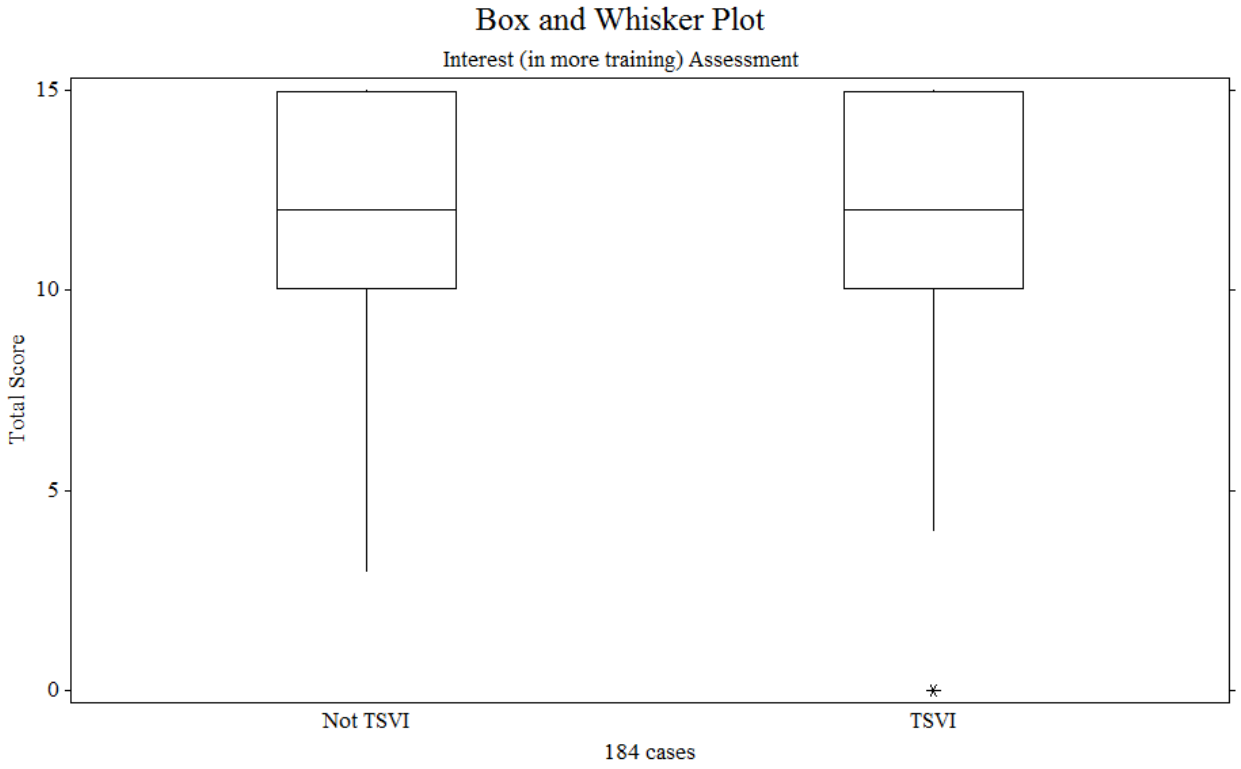


The following table displays frequency distributions and mean ratings of recorded ratings of respondents' comfort with each topic.

Comfort Assessment Ratings

Topic	Mean	Percent of Recorded Ratings			
		0 = not at all comfortable	1 = fairly comfortable	2 = Somewhat comfortable	3 = Very comfortable
Infant mealtime development skills	1.90	6%	19%	53%	22%
Toddler mealtime development skills	2.01	3%	19%	53%	25%
Recognizing age appropriate mealtime utensil use skills	2.11	1%	20%	46%	33%
Supporting a family in setting up a mealtime routine	2.10	2%	17%	50%	31%
When to make a referral to a medical professional	1.99	9%	19%	35%	37%

Mean ratings of interest in participating in more training over the five topics were not significantly different for TSVIs and respondents who were not TSVIs ($t = 0.46$, $p < 0.6433$).The mean interest rating for the TSVIs was 11.49 (std. dev. = 3.89) and the mean interest rating for the not-TSVIs was 11.76 (std. dev. = 3.45). The following box-and-whisker plot displays the distributions of Interest Assessment Scores for TSVIs and respondents who were not TSVIs.



The following tables display frequency distributions and mean ratings of recorded ratings of interest in additional training with regard to each topic.

Interest Assessment Ratings

Topic	Mean	Percent of Recorded Ratings about More Training			
		0 = not at all interested	1 = fairly interested	2 = Somewhat interested	3 = Very interested
Infant mealtime development skills	2.35	3%	13%	31%	53%
Toddler mealtime development skills	2.39	2%	11%	34%	53%
Recognizing age appropriate mealtime utensil use skills	2.22	6%	14%	32%	48%
Supporting a family in setting up a mealtime routine	2.38	4%	10%	29%	57%
When to make a referral to a medical professional	2.21	7%	15%	29%	49%

Findings: Typical Mealtime Development Quiz

Descriptive Findings: All Respondents

Item statements, fixed survey choices, number of recorded responses, and percentage of total number of responses for each of the fifteen questions are displayed in the following tables. The correct response for each item is recorded under the appropriate column just below each table.

Item 1 (N = 172)

A child is typically able to hold and use a spoon with some assistance by the age of:

Fixed choice responses	11-14 months	15-18 months	19-22 months	23-26 months
Number of recorded responses	91	62	19	0
Percentage of total number of responses	52.9	36.0	11.0	0.0

The correct response: 15-18 months

Item 2 (N = 172)

The American Academy of Pediatrics recommends breast feeding or infant formula as the sole source of nutrition under the age of six months.

Fixed choice responses	True	False
Number of recorded responses	147	25
Percentage of total number of responses	85.5	14.

The correct response: True

Item 3 (N = 172)

A child can typically pick up small pieces of food (cereal and puffs) without assistance by the age of:

Fixed choice responses	4-6 months	7-10 months	11-14 months	15-18 months
Number of recorded responses	14	119	36	3
Percentage of total number of responses	8.1	69.2	20.9	1.7

The correct response: 7-10 months

Item 4 (N = 172)

Typically children are able to drink independently from a cup with a lid by the age of:

Fixed choice responses	6-8 months	9-11 months	12-18 months	19-24 months
Number of recorded responses	7	70	87	8
Percentage of total number of responses	4.1	40.7	50.6	4.7

The correct response: 12-18 months

Item 5 (N = 171)

Children who are ____ old are able to wait for food or drink at the table for ten minutes without fussing:

Fixed choice responses	9-12 months	13-16 months	18-24 months	25-30 months
Number of recorded responses	5	21	60	85
Percentage of total number of responses	2.9	12.3	35.1	49.7

The correct response: 18-24 months

Item 6 (N = 171)

How long is a developmentally appropriate mealtime for a child from 24 to 36 months?

Fixed choice responses	20 minutes	40 minutes	60 minutes	However long the adults take to eat
Number of recorded responses	141	26	0	4
Percentage of total number of responses	82.5	15.2	0.0	2.3

The correct response: 20 minutes

Item 7 (N = 169)

A child will begin to use words or sign to request "eat" or "drink" (not specific items) at the age of:

Fixed choice responses	7 months	9 months	12 months	15 months
Number of recorded responses	19	60	69	21
Percentage of total number of responses	11.2	35.5	40.8	12.4

The correct response: 12 months

Item 8 (N = 169)

Children can rake food with their fingers in front of them on a tray or table by the age of:

Fixed choice responses	6-8 months	9-12 months	13-15 months	16-18 months
Number of recorded responses	99	66	3	1
Percentage of total number of responses	58.6	39.1	1.8	0.6

The correct response: 6-8 months

Item 9 (N = 167)

Using a fork independently is typically present at the age of:

Fixed choice responses	20-24 months	25-29 months	30-36 months	37-42 months
Number of recorded responses	59	54	43	11
Percentage of total number of responses	35.3	32.3	25.7	6.6

The correct response: 30-36 months

Item 10 (N = 166)

Typically children begin to communicate the need for help at mealtime (i.e., cutting, opening) at the age of:

Fixed choice responses	12-15 months	18-23 months	24-28 months	30-36 months
Number of recorded responses	20	69	48	29
Percentage of total number of responses	12.0	41.6	28.9	17.5

The correct response: 24-28 months

Item 11 (N = 166)

Given a choice, you can expect a child to demonstrate food preferences at the age of:

Fixed choice responses	12-15 months	18-23 months	24-28 months	29-36 months
Number of recorded responses	101	52	11	2
Percentage of total number of responses	60.8	31.3	6.6	1.2

The correct response: 24-28 months

Item 12 (N = 166)

Young children can drink independently out of an open cup by the age of:

Fixed choice responses	15-18 months	19-23 months	25-29 months	30-36 months
Number of recorded responses	28	46	57	35
Percentage of total number of responses	16.9	27.7	34.3	21.1

The correct response: 15-18 months

Item 13 (N = 166)

Infants and toddler need to be exposed to different foods many times before accepting them.

Fixed choice responses	True	False
Number of recorded responses	161	5
Percentage of total number of responses	97.0	3.0

The correct response: True

Item 14 (N = 166)

It is common to see children bit off hard pieces of food (raw fruits and vegetables, meats, cookies) by the age of:

Fixed choice responses	15-18 months	19-23 months	24-30 months	31-36 months
Number of recorded responses	41	49	51	25
Percentage of total number of responses	24.7	29.5	30.7	15.1

The correct response: 24-30 months

Item 15 (N = 166)

Cultural norms have _____ effect on "age-expected" mealtime skills:

Fixed choice responses	No	Negligible	Some	Significant
Number of recorded responses	0	0	20	146
Percentage of total number of responses	0.0	0.0	12.0	88.0

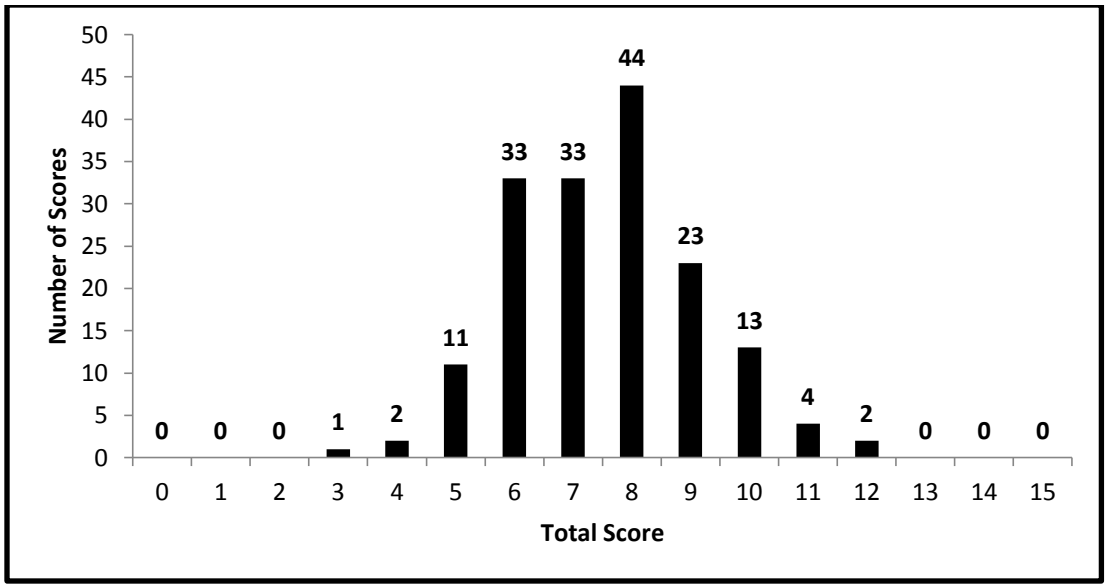
The correct response: Significant

Internal Consistency

To arrive at a total score correct responses to the fifteen questions were coded "1" and incorrect responses were coded "0". Internal consistency (reliability) was tested to determine how closely related the set of fifteen items were as a group to an underlying construct or theme. It is generally agreed that if reliability is less than .80, a single score should not be used to make important decisions about individuals. These 15 items do not test a clearly defined, unified body of content. Because of the non-existent reliability (Kuder-Richardson 20 equal to 0.009 and Cronbach's alpha equal to -0.0152) the fifteen items were not treated as an additive scale because the items are not related to one another (there is no commonality) but instead, the survey is measuring each respondent's knowledge of fifteen isolated facts.

The total score, then, is the total number of fifteen isolated facts each individual knew. The mean number of facts the group of respondents knew was 7.54 facts and the standard deviation was 1.61. The median was 8 facts. Based on internal consistency information, the total scores are like random scores and so on average a respondent will get seven or eight of the items correct so the survey as a whole does not measure an underlying construct. The highest possible score was 15 and the lowest possible score was zero (0). The frequency distribution of total scores is displayed in the following chart.

Distribution of Total Scores (N = 166)



Item Analysis

Item analysis was carried out to assess the quality of the items and to help determine item difficulty and item discrimination in measuring knowledge of eating skills. The correlation matrix is displayed here in the interest of thoroughness.

Correlations (Pearson) **N = 166**

	ITEM01	ITEM02	ITEM03	ITEM04	ITEM05	ITEM06	ITEM07
ITEM02	0.0241						
ITEM03	-0.0426	0.0233					
ITEM04	0.0822	-0.0586	-0.1015				
ITEM05	-0.0440	-0.0473	-0.0969	-0.0683			
ITEM06	0.0159	0.0364	-0.0313	-0.1000	-0.0171		
ITEM07	0.0711	0.1287	0.0422	-0.0812	-0.1589	0.2491	
ITEM08	-0.0617	-0.0290	0.1622	-0.0779	-0.0872	-0.0284	-0.1886
ITEM09	0.0703	0.0085	-0.0235	0.0820	0.0417	-0.0901	-0.0100
ITEM10	0.0457	-0.0023	0.1655	-0.0154	0.0733	-0.0215	-0.1184
ITEM11	0.1020	-0.0971	0.0724	0.0178	-0.0492	-0.0050	0.1264
ITEM12	-0.0040	0.0022	0.0559	-0.0752	-0.0375	-0.1317	-0.0755
ITEM13	-0.0141	0.0278	-0.0410	-0.0310	0.1326	0.1046	0.0013
ITEM14	-0.0118	0.0139	-0.0377	0.0231	0.0426	0.0657	0.0377
ITEM15	0.2014	0.0583	0.0744	0.0089	-0.0682	-0.0241	0.0404

	ITEM08	ITEM09	ITEM10	ITEM11	ITEM12	ITEM13	ITEM14
ITEM09	0.0172						
ITEM10	0.0990	0.0172					
ITEM11	-0.0243	0.1189	-0.0097				
ITEM12	0.1135	-0.0827	-0.1454	0.0740			
ITEM13	-0.0035	-0.1372	-0.1208	0.0469	0.0794		
ITEM14	-0.0825	-0.0957	-0.0215	-0.0199	-0.0559	-0.0354	
ITEM15	0.0680	0.0921	0.1136	0.0242	0.0679	-0.0652	-0.0343

Cronbach's Alpha -0.0152

Item Difficulty

Items that are too easy or too difficult will not discriminate well so item difficulty (p-value) was calculated. For a maximum discrimination between high and low achievers, the optimal levels (adjusting for guessing) are: 2 alternatives true and false = .75
4 alternatives multiple-choice = .63
Conservatively items with difficulties less than 30 percent or more than 90 percent do not discriminate well. The following table displays the p-value for each of the items and categories of "okay, marginal, or unacceptable" difficulty.

Item Difficulty Index for each of the Fifteen Items

	Item Number														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
p-value:	.36	.86	.69	.51	.36	.83	.40	.59	.26	.29	.07	.17	.97	.31	.88
Okay	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes							Yes
Marginal										Yes				Yes	
Unacceptable									Yes		Yes	Yes	Yes		

Item Discrimination I

Item Discrimination index (IDis) is a measure of how well an item is able to distinguish between examinees who are knowledgeable of the underlying theme and those who are not. This statistic looks at the relationship between a respondent's performance on the given item (correct or incorrect) and the respondent's score on the overall test. (The IDis = upper group percent correct – lower group percent correct.) The following categories were used for discriminating types of items:

40% to 100%	Excellent
25% to 39%	Good
0% to 24%	Usually unaccepted
Negative	Unacceptable

The following table displays the percentage of correct responses for the group with the top 25% of total scores (N = 42) and the bottom 25% of total scores (N = 47). For example, 67% of the group of individuals who knew the most facts and 17% of the group of individuals who knew the fewest facts responded correctly to the first item on the quiz. The difference was 50% hence this was "Excellent."

Percentages of Correct Responses for each Item

	Item Number														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Top 25%	67%	95%	88%	71%	48%	93%	52%	74%	50%	45%	14%	24%	98%	48%	98%
Bottom 25%	17%	70%	45%	43%	28%	74%	21%	38%	15%	13%	2%	11%	94%	19%	72%
IDis	50%	25%	43%	28%	20%	19%	31%	36%	35%	32%	12%	13%	4%	29%	26%

The following table identifies the excellent, good and unacceptable items based on the IDis (difference) for each of the items. Interpretations are displayed in the following table: Good items have a discrimination index of .40 and higher; reasonably good items from .30 to .39; marginal items from .20 to .29, and poor items less than .20.

Item Discrimination Index for each of the Fifteen Items

	Item Number														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
IDis	.50	.25.	.43	.28	.20	.29	.31	.36	.35	.32	.12	.13	.04	.29	.26
Excellent item	Yes		Yes												
Good item							Yes	Yes	Yes	Yes					
Marginal item				Yes	Yes	Yes								Yes	Yes
Poor item											Yes	Yes	Yes		

Item Discrimination II

The point biserial correlation (PBC) measures the correlation between the correct answer (viewed as 1 = right and 0 = wrong) on an item and the total score. Generally, the greater the PBC the better the item discriminates. The following criteria were used to evaluate test items: very good items (.30 and above), reasonably good items (.20 to .29), marginal items (.10 to .19) and poor items (.00 to .09).

Point Biserial Correlation for each of the Fifteen Items

	Item Number														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
PBS value:	.39	.24	.34	.21	.18	.23	.28	.26	.29	.32	.26	.15	.08	.24	.37
Very good item	Yes		Yes							Yes					Yes
Reasonably good item		Yes		Yes		Yes	Yes	Yes	Yes		Yes			Yes	
Marginal item					Yes							Yes			
Poor item													Yes		

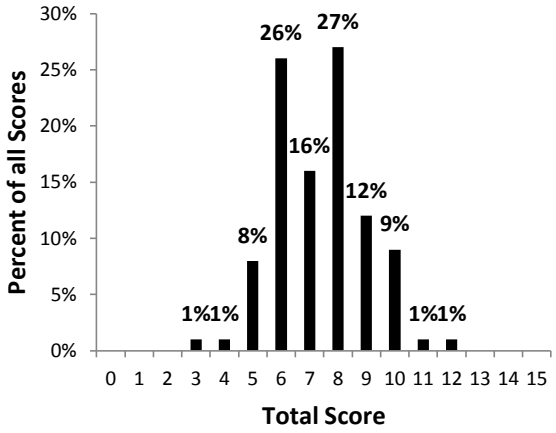
Descriptive Statistics for Demographic Groups

Total score descriptive statistics were calculated for various demographic groups. These data are summarized in the following displays.

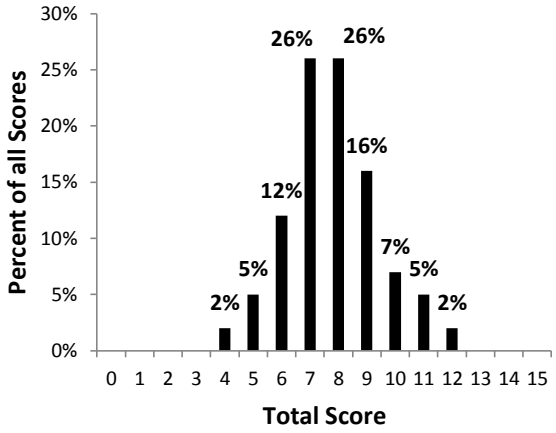
State Licensure, Endorsement or Certification in Visual Impairment (VI)

On average, individuals who responded "No" to the survey question, "Do you have a state licensure, endorsement, or certification in Visual Impairment?" got eight of the facts correct and individuals who responded "yes" to this question got seven of the facts correct. Frequency distributions and medians are displayed below for 105 individuals who had state licensure, endorsement, or certification in visual impairment and 61 individuals who did not.

Total Scores for 105 Respondents who did have State Licensure, Endorsement or Certification in Visual Impairment Median = 7 items



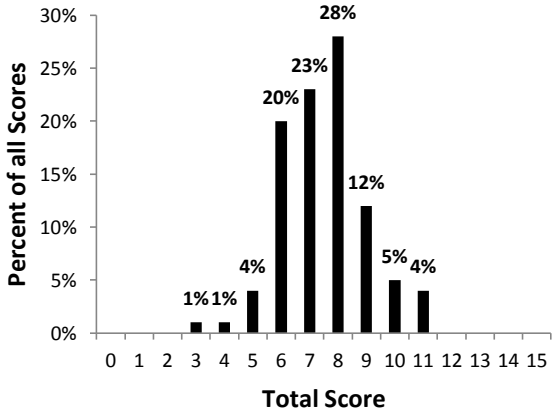
Total Scores for 61 Respondents who did not have State Licensure, Endorsement or Certification in Visual Impairment Median = 8 items



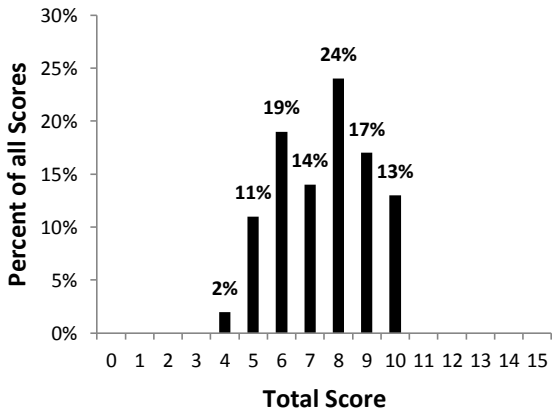
State Licensure, Endorsement or Certification in Early Intervention (EI)

On average, individuals who did or did not have state licensure, endorsement, or certification in Early Intervention got eight of the facts correct. Frequency distributions and medians are displayed below for 105 individuals who had state licensure, endorsement, or certification in visual impairment and 61 individuals who did not.

Total Scores for 103 Respondents who did have State Licensure, Endorsement or Certification in Early Intervention Median = 8 items



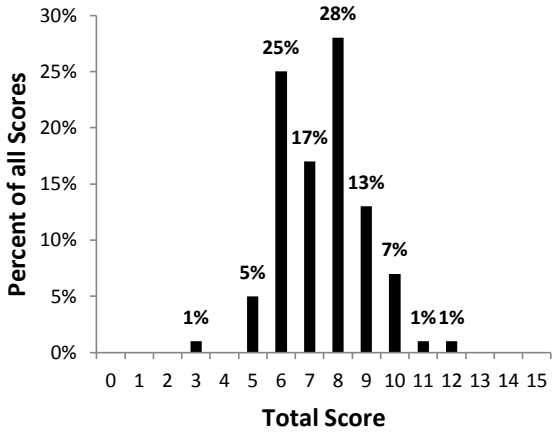
Total Scores for 63 Respondents who did not have State Licensure, Endorsement or Certification in Early Intervention Median = 8 items



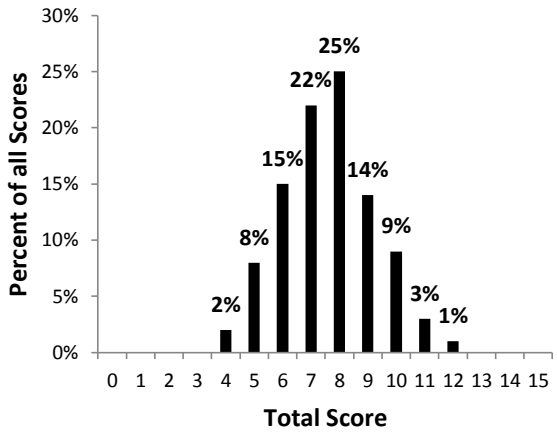
State Licensure, Endorsement or Certification in EI and VI

On average, individuals who did or did not have state licensure, endorsement, or certification in both Early Intervention (EI) and Visual Intervention (VI) got eight of the facts correct. Frequency distributions and medians are displayed below for 75 individuals who had state licensure, endorsement, or certification in visual impairment and 91 individuals who did not.

Total Scores for 75 Respondents who <u>did</u> have <u>both</u> State Licensure, Endorsement or Certification in Visual Intervention and Early Intervention
Median = 8 items



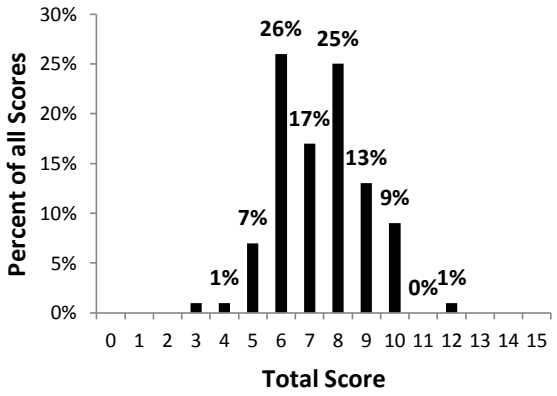
Total Scores for 91 Respondents who <u>did not</u> have State Licensure, Endorsement or Certification in Early Intervention
Median = 8 items



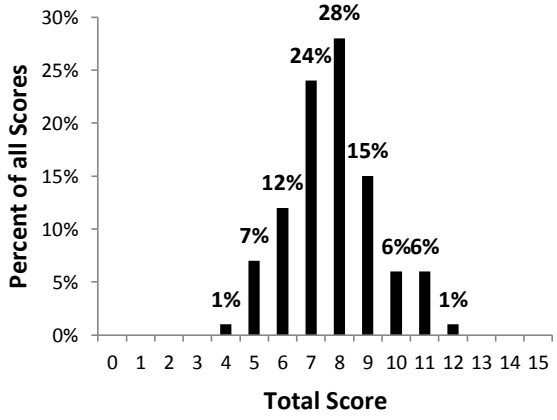
Teachers of Students with Visual Impairments (TSVIs)

Total scores, as the number of isolated facts known by respondents, were available for 166 respondents, 164 of which were identified as either TSVIs (92) or not-TSVIs (72). Overall, TSVIs knew seven facts and respondents who were not TSVIs knew eight facts. Since the fifteen items had no internal consistency the total score does not reflect knowledge of an underlying construct, instead, it reflects how many facts respondents knew.

Total Scores for 92 Respondents who <u>were</u> TSVIs
Median = 7 items



Total Scores for 72 Respondents who <u>were not</u> TSVIs
Median = 8 items



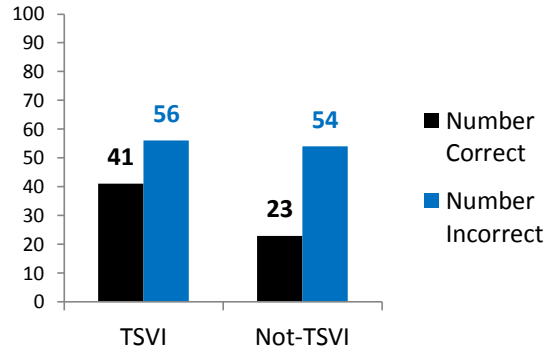
Percentages of correct responses to each of the fifteen questions are displayed below for TSVIs and not-TSVIs.

Percentages of Correct Responses to the 15 Questions for TSVIs and Not-TSVIs

Question	Question Statement	TSVI		Not-TSVI	
		N	% correct	N	% correct
1	A child is typically able to hold and use a spoon with some assistance by the age of….	97	42	77	30
2	The American Academy of Pediatrics recommends breastfeeding or infant formula be the sole source of nutrition until the age of six months.	97	86	77	86
3	A child can typically pick up small pieces of food (cereal, puffs) without assistance by the age of…	97	63	77	77
4	Typically children are able to drink independently from a cup with a lid by the age of…	97	57	77	43
5	Children who are _____ old are able to wait for food or drink at the table for ten minutes without fussing.	96	38	77	31
6	How long is a developmentally appropriate mealtime for a child from 24 to 36 months?	96	80	77	86
7	A child will begin to us words or signs to request “eat” or “drink” (Not specific items) at the age of…	95	38	76	45
8	A child can rake food with their fingers in front of them on a tray or table by the age of…	95	46	76	72
9	Using a form independently is typically present at the age of…	95	23	74	30
10	Typically children begin to communicate the need for help at mealtime (i.e. cutting, opening) at the age of…	94	29	74	30
11	Given a choice, you can expect a child to demonstrate food preferences at the age of…	94	4	74	11
12	Young children can drink independently out of an open cup by the age of…	94	17	74	16
13	Infants and toddlers need to be exposed to different foods many times before accepting them…	94	96	74	99
14	It is common to see children bite off hard pieces of food (raw fruits and vegetables, meats, cookies) by the age of…	94	32	74	31
15	Cultural norms have ___ effect on “age-expected” mealtime skills.	94	86	74	11

Distributions of correct and incorrect response for TSVIs and not-TSVIs were analyzed using the Chi-Square test. The following displays of findings include item statements (Q1 … Q15), charts of frequency distributions, the Chi-Square coefficient (X^2) for each item, and the p-value (at the .05 level). Brief explanations are included below each display. The correct response in the reported numbers of responses for the group of TSVIs is highlighted in bold font.

Q1-A child is typically able to hold and use a spoon with some assistance by the age of….



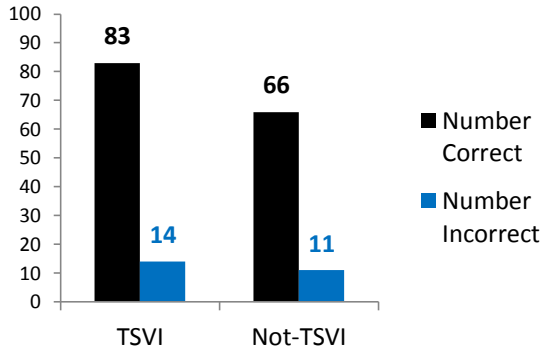
$X^2 = 2.84$ $p < 0.0921$

Distributions of numbers of correct and incorrect responses were not significantly different for TSVIs and not-TSVIs.

Numbers of TSVI responses:

- 43 selected the response, 11 to 14 months
- **41 selected the response, 15 to 18 months**
- 13 selected the response, 19 to 22 months
- No one selected the response, 23 to 26 months

Q2-The American Academy of Pediatrics recommends breastfeeding or infant formula be the sole source of nutrition until the age of six months.



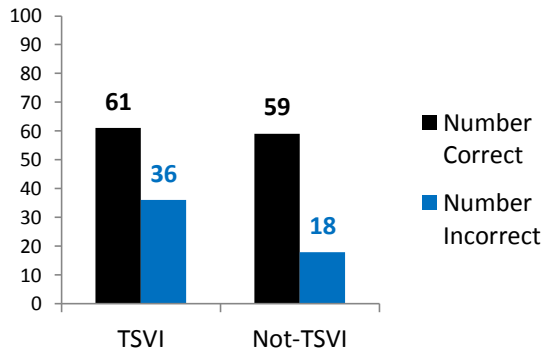
$X^2 = 0.00$ $p < 0.9781$

Distributions of correct and incorrect responses for the group of TSVIs and the group of not-TSVIs were nearly identical.

Numbers of TSVI responses:

- **83 selected the response, True**
- 14 selected the response, False

Q3-A child can typically pick up small pieces of food (cereal, puffs) without assistance by the age of…



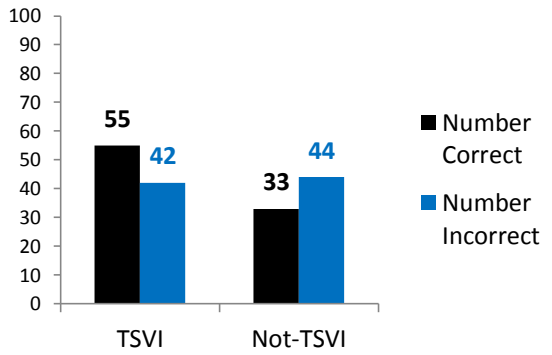
$X^2 = 3.78$ $p < 0.0517$

Distributions were significantly different. The percentage of correct responses was greater for the group of TSVIs than for the not-TSVIs group.

Numbers of TSVI responses:

- 7 selected the response, 4 to 6 months
- **61 selected the response, 7 to 10 months**
- 27 selected the response, 11 to 14 months
- 2 selected the response, 15 to 18 months

Q4-Typically children are able to drink independently from a cup with a lid by the age of…



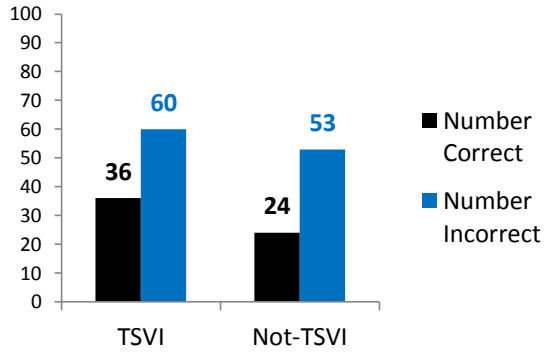
$X^2 = 3.29$ $p < 0.0697$

Distributions were not significantly different although a larger proportion of TSVIs than not-TSVIs recorded correct responses.

Numbers of TSVI responses:

- 2 selected the response, 6 to 8 months
- 37 selected the response, 9 to 11 months
- **55 selected the response, 12 to 18months**
- 3 selected the response, 19 to 24 months

Q5-Children who are _____ old are able to wait for food or drink at the table for ten minutes without fussing.



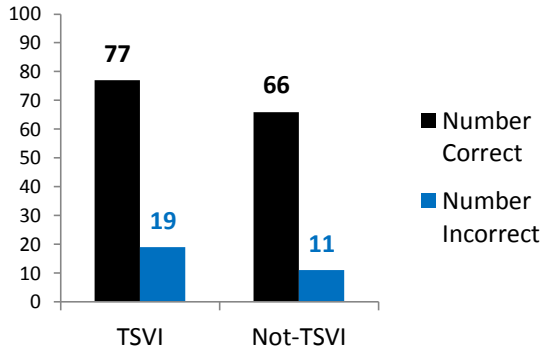
$X^2 = 0.76$ $p < 0.3846$

Distributions of correct and incorrect responses were not significantly different for the two groups with more respondents recording incorrect responses than correct responses.

Numbers of TSVI responses:

- 4 selected the response, 9 to 12 months
- 16 selected the response, 13 to 16 months
- **36 selected the response, 18 to 24 months**
- 40 selected the response, 25 to 30 months

Q6-How long is a developmentally appropriate mealtime for a child from 24 to 36 months?



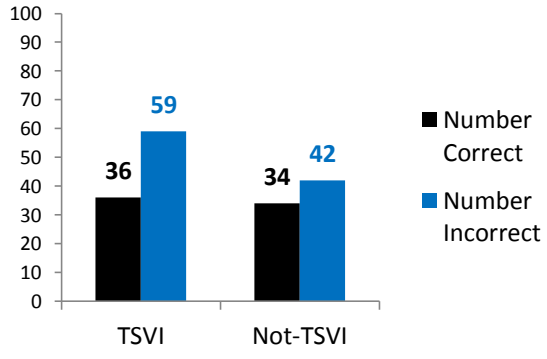
$X^2 = 0.90$ $p < 0.3418$

Distributions of correct and incorrect responses were not significantly different for the two groups with more respondents recording correct responses than incorrect responses.

Numbers of TSVI responses:

- **77 selected the response, 20 minutes**
- 16 selected the response, 40 minutes
- No one selected the response, 60 minutes
- 3 selected "However long adults take to eat"

Q7-A child will begin to us words or signs to request "eat" or "drink" (Not specific items) at the age of…



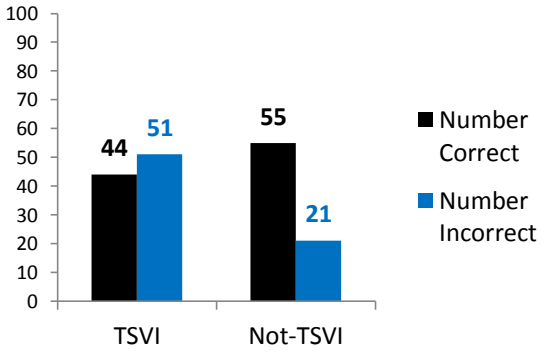
$X^2 = 0.82$ $p < 0.3659$

Distributions of correct and incorrect responses were not significantly different for the two groups.

Numbers of TSVI responses:

- 10 selected the response, 7 months
- 35 selected the response, 9 months
- **36 selected the response, 12 months**
- 14 selected the response, 15 months

Q8-A child can rake food with their fingers in front of them on a tray or table by the age of…



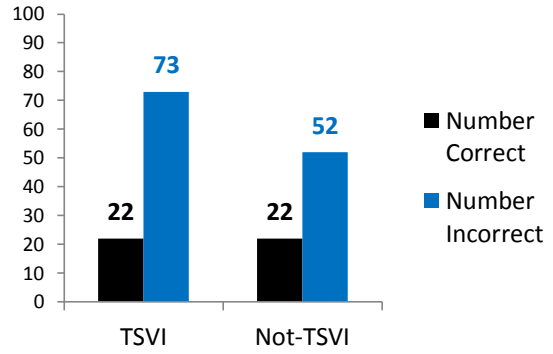
$X^2 = 11.56$ $p < 0.0006$

The distributions of correct and incorrect responses were significantly different with a greater proportion of not-TSVIs than TSVIs recording the correct response.

Numbers of TSVI responses:

- **44 selected the response, 6 to 8 months**
- 47 selected the response, 9 to 12 months
- 3 selected the response, 13 to 15 months
- 1 selected the response, 16 to 18 months

Q9-Using a form independently is typically present at the age of…



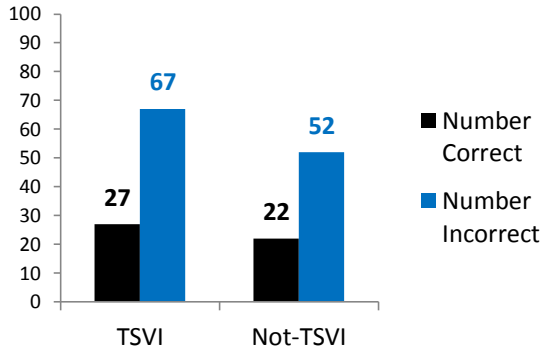
$X^2 = 0.93$ $p < 0.3341$

Distributions of correct and incorrect responses were not significantly different for the two groups.

Numbers of TSVI responses:

- 33 selected the response, 20 to 24 months
- 31 selected the response, 25 to 29 months
- **22 selected the response, 30 to 36 months**
- 9 selected the response, 37 to 42 months

Q10-Typically children begin to communicate the need for help at mealtime (i.e. cutting, opening) at the age of…



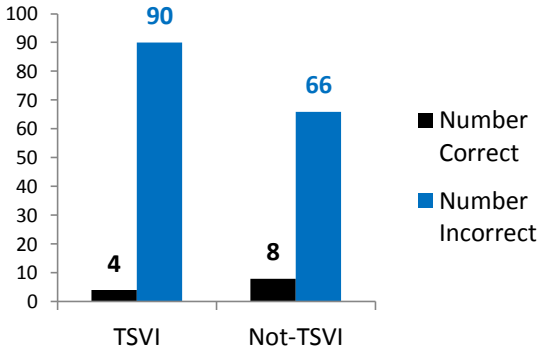
$X^2 = 0.02$ $p < 0.8867$

Distributions of correct and incorrect responses were not significantly different for the two groups

Numbers of TSVI responses:

- 11 selected the response, 12 to 15 months
- 37 selected the response, 18 to 23 months
- **27 selected the response, 24 to 28 months**
- 19 selected the response, 30 to 36 months

Q11-Given a choice, you can expect a child to demonstrate food preferences at the age of…



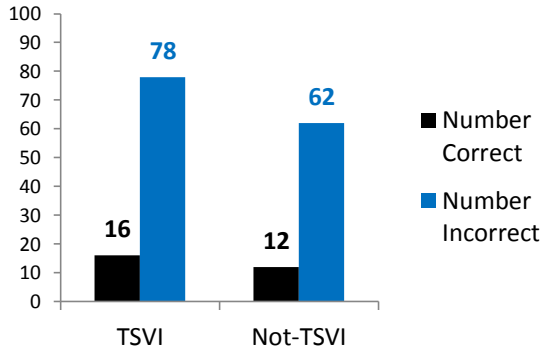
$X^2 = 2.68$ $p < 0.1014$

Distributions of correct and incorrect responses for the two groups were not significantly different.

Numbers of TSVI responses:

- 62 selected the response, 12 to 15 months
- 27 selected the response, 18 to 23 months
- **4 selected the response, 24 to 28 months**
- 1 selected the response, 29 to 36 months

Q12-Young children can drink independently out of an open cup by the age of…



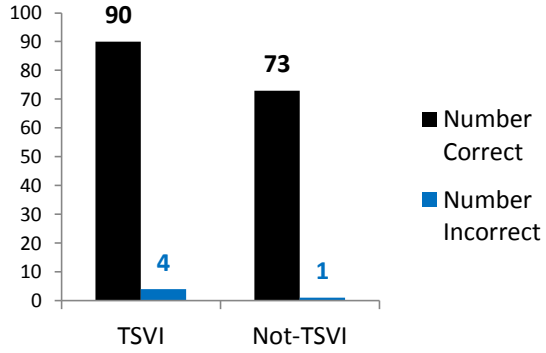
$X^2 = 0.02$ $p < 0.8894$

Distributions of correct and incorrect responses for the two groups were not significantly different.

Numbers of TSVI responses:

- **16 selected the response, 15 to 18 months**
- 26 selected the response, 19 to 23 months
- 30 selected the response, 25 to 29 months
- 22 selected the response, 30 to 36 months

Q13-Infants and toddlers need to be exposed to different foods many times before accepting them…



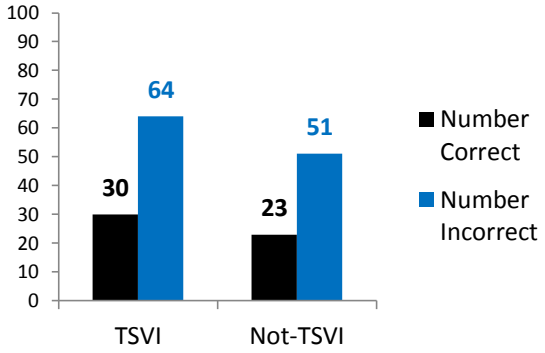
$X^2 = 1.21$ $p < 0.2715$

Distributions of correct and incorrect responses for the two groups were not significantly different.

Numbers of TSVI responses:

- **90 selected the response, True**
- 4 selected the response, False

Q14-It is common to see children bite off hard pieces of food (raw fruits and vegetables, meats, cookies) by the age of…



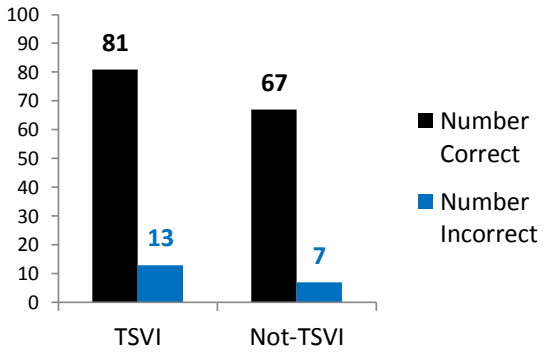
$X^2 = 0.01$ $p < 0.9081$

Distributions of correct and incorrect responses for the two groups were not significantly different.

Numbers of TSVI responses:

- 24 selected the response, 15 to 18 months
- 23 selected the response, 19 to 23 months
- **36 selected the response, 24 to 30 months**
- 17 selected the response, 31 to 36 months

Cultural norms have ___ effect on "age-expected" mealtime skills.



$X^2 = 0.75$ $p < 0.3852$

Distributions of correct and incorrect responses for the two groups were not significantly different.

Numbers of TSVI responses:

- No one selected the response, no
- 13 selected the response, some
- No one selected the response, negligible
- **81 selected the response, significant**

Appendix: Reasons for Having or Not Having Sufficient Training

"Yes" – I have sufficient training

These were reasons (with minor editing) provided for responding "Yes" to the question: Do you have sufficient experience/training to support families and young children with visual impairment in the area of feeding/mealtime skills?

- A little just with experience of working with other families and as a mom my personal experiences
- As part of a multi-disciplinary team, I am able to add support in the areas of positioning, sensory-exploration, environmental set-up, and fine & gross motor skill development based on my professional training and clinical experience; HOWEVER, if the needs of the child and family are more specific related to swallowing, specific visual supports, or use of specific adaptive equipment, then I tend to request the support of my Vision specialty, SLP, and OT colleagues.
- It should also be noted that much of my clinical experience and mentorship has come from being part of transdisciplinary EI teams in another state with an EI structure/model that is quite different from that here in Colorado.
- As part of a team yes.
- Background & experience
- But training is always welcome and desired to address new issues with children. The complexities of our children need us to be up to date in techniques always.
- Collaboration with feeding specialists have given me a lot of strategies that often help young children with visual impairment and mealtime
- Due to the fact we work with early interventionist, OT, etc... when working with young children
- Enough to know when to refer but this is not my area of expertise.
- Experience has given me a toolbox full of tools to address this area. I am always interested in learning new information and refreshing my skills, though.
- Experience in working with young children 23 years
- For many families but not all. I have a decent background in VI needs and learning styles plus sensory background.
- For the most part. Spending time at the Anchor Center helped a lot. I also have a strong interdisciplinary team. However, I always feel this is more to learn and every child/family is different.
- Have done this many times over many years
- Have worked with different families to develop routines that work for them, and have the resources to refer or consult for help.
- I am supported by a team of very experienced professionals from different disciplines.
- I am trained as an occupational therapist and have experience with working on mealtime skills with children with a variety of other disabilities, so applying some of that knowledge to children with visual impairments. Have received on the job in-service training on mealtime skills, but not on implementing a specific mealtime routine.
- I attended a 4-year VI college program. Since, then, I have worked well with other professionals to increase my skills and knowledge.
- I believe I can provide support on where the parent should sit, indicators to let the child know it is meal time, feeding the child from their visually effective side and working on hand eye coordination for meal time.

- I do not feel like I have enough experience at this time to adequately answer this question. I will be starting my EI caseload within the next month.
- I do when I collaborate with other specialists so that we can fit all the pieces together.
- I feel that I do as part of a team effort. Not by myself.
- I feel that I have gotten quite a bit of practice with my caseload over the years to work on meal time routines and needs in feeding. I have also sought out further training in general mealtime issues as well as mealtime issues for children with visual impairments. However, further research and training would be very beneficial.
- I feel there is always more to learn, regardless of the level of experience we have acquired - each child and family presents with unique needs.
- I had training with during the preschool seminars. Much of the information that is useful, has been ignored by the field lately
- I have 35 years teaching in the early childhood field. In the last 10 years I began to work towards a degree in VI. So my EC experience is helpful in talking with parents, but these VI kids teach me new things each and every day.
- I have been doing this work for a long time. I usually have more background and experience in identifying, evaluating, and developing strategies than most of my team members. I am also able to use my team members' experience and skills to better improve my skills and the overall delivery of services to the families I work with. I know how to work with the team.
- I have been to additional courses about feeding skills and I work with children during meal times in the preschool setting
- I have been working in the field of Early Intervention my entire career of 16 years and have worked with a wide range of children with different rules of disabilities, most of who have had difficulties with eating. I do however feel as if I can always learn more and would be more than willing and eager to participate in training.
- I have experience supporting children in developing feeding skills. I have been trained on basic, evidence based interventions concerning feeding skills.
- I have experienced it as a professional and from a parent's point of view. I work with kids every week that struggle with their vision and have other medical needs.
- I have extensive feeding and mealtime experience from NICU to age 5. I think I can support children with visual impairments and their families by analysis of specific skills, strengths, and needs
- I have had 12 years of experience and learning and throughout that time, however, I would always love to learn more to support families and young children better to be more successful.
- I have had training sessions related to visual impairments and feeding issues/ but it would be wonderful to have more.
- I have participated in the BABIES model training of developmentally supportive care and through transdisciplinary teaming learned many skills to address feeding and mealtime needs.
- I have worked closely with parents, SLPs, OT/PTs to gain better skills in this area.
- BTW, the previous slide would not let me advance until I clicked the second array of buttons on the left, even though there was no description attached to it!?
- I have worked EI previously in another state and done this with these students and set up some of these plans to address parent concerns and ideas using OT and PT feedback for physical expectations
- I have worked with a number of OT's, SLP's and EI's throughout my 20 years and developed a fairly good repertoire of various skills.

- I mostly feel that I do. I was an EC teacher for both children with disabilities as well as typically developing children for 8 years and this has helped the service I provide to children with VI. I am also a parent to a toddler, so have awareness of typical mealtime skill development through my own child. Secondly, my colleague, who does the same job as me, is a trained and registered (but non-practicing) OT, who has also taught me a lot. I also access resources such as the DIY Kit and Perkins website. Finally, in the three years of working in my role I have learned a lot about what works for families and children.
- I work with feeding specialists in a collaborative role often. In addition, I underwent some recent training on feeding and mealtime routines.
- I would welcome more training.
- If I have any concerns about feeding issues I always pull in other team members with expertise to provide support to the child and the family.
- I've had a great deal of training in feeding therapy and have been working with this population for 10 years
- I've had lots of experience, but would love a refresher course, or additional information.
- I've worked with early intervention age group (b-3) for several years and have learned from families, vision consultants, and various other professionals on working in this area.
- Long time experience working together with colleagues who had feeding skill mastery gained through their specific areas of expertise -- OT, Speech, PT, behavior specialists
- My school provided assistance with this
- My training (formal and from team members) and my experience have provided me the skills necessary for my children/families to experience success in mealtime/feeding.
- My years of experience and the support of speech therapists and OTs
- Not only did I have many years of experience with students on my caseload, I have had experience within my own family.
- Over the years you get ideas you work with OTs see what works, get better understanding of medical and realize the importance
- personal experience and having to do it as well as using others with this skill as a resource we have come up with a plan that 95% of the time is successful No one ever has all the answers being able to know where to go to find answers is a big help
- Raising four children of my own and teaching forever gives me a lot of experience in mealtime. I am always interested in learning new skills.
- Somewhat, but I don't provide this routinely without support of occupational therapy and/or speech.
- Somewhat, but I feel there is always more to learn. I feel like I have a great support network of OTs and SLPs that I can reach out to check on the safety of oral motor skills. We can then collaborate about specific issues related to vision loss.
- Strong training and education and Neuroscience and sensory integration. Training at Cincinnati Children's Hospital Medical Center. History of meeting clinical goals and caregiver Education and Training.
- Sure, but I know I could always learn more.
- The answer to this question depends on the degree of need regarding feeding/mealtime skills. In the early intervention model, I usually support families through a model of collaboration with therapists and EI professionals. With current, ongoing input from the family and the intervention team, I do feel as though I have sufficient experience/training to support families and young children.

- There has always been someone on the child's educational team with knowledge in appropriate feeding/mealtime. I have supported the vision angle
- Through OT education, we are trained to analyze the task and make adaptations to increase participation. Low vision is an area of OT.
- Training, medical and other conference, mentoring and collaborations with professionals
- Very limited training provided in this area but I have sought out resources in order to support the families and children with visual impairment that I work with. I would love additional training to help grow my skills!
- Worked as a Parent Educator for 12 years
- working closely with other professionals
- Years of experience plus opportunities to team with OT's and nutritionists
- Yes I have worked closely for many years with an occupational therapist who has extensive training in the area of feeding
- Yes, extensive training in feeding and development of children with visual impairment and with feeding problems.
- Yes, when working with families dealing with primarily visual impairments. Less confident when other issues are involved
- Yes. I have received exceptional training and mentorship in this area and have successfully supported many families struggling with mealtimes.

"No" – I don't have sufficient training

These were reasons (with minor editing) provided for responding "No" to the question: Do you have sufficient experience/training to support families and young children with visual impairment in the area of feeding/mealtime skills?

- After 7 years of working with children who are visually impaired, I have only had to work with 3 children who were having difficulties with eating. Therefore, I feel that I have not gained enough experience.
- As a PT I rely heavily on other team members who have greater expertise in feeding.
- As an OT I could learn more about oral-motor development and feeding strategies for children especially who have g-tubes and limited oral experience.
- Because I am not generally in the home at mealtimes to experience firsthand what goes on. I am aware that families have different expectations and values around mealtimes.
- Because I have only received a brief training. The other knowledge I have was when I worked in an early intervention agency as a Developmental Specialist for 8 years and co-visited with other specialist and learned during those visits. While I am grateful for the opportunity to learn from those individuals it also wasn't my role and so I don't feel like I fully assimilated the information.
- Briefly touched on in my preservice training. Not enough information out there that can be shared with team members
- Can always use more ideas and information!!
- Challenges for the child as well as the family's socioeconomic as well as cultural beliefs have impacted safety and mealtime preparation. Feeding should be comfortable and a social play activity but the current demands of lack of time can become very tricky
- Even with the many years of experience I may have, there is always room for growth in any area. I have only worked with those that have diagnosed CVI, so I know that if I were to ever have a

child enroll into my class that was blind, I would need training in all areas to better work with that child, including feeding.

- Every family has been different. Some have children with multiple disabilities that have ended up with a feeding tube. Children with ONH have had texture issues, and collaborating with families and interventionists can sometimes be difficult due to scheduling/time constraints.
- Feeding and swallowing are touchy areas for SLPS
- have not had a chance to partake in training
- Have not had any specific training beyond a couple conference breakout sessions.
- Haven't received any training regarding mealtime routines.
- I always feel I can use more training and experience when it comes to feeding/mealtime skills. would like to see more workshops or webinars for information
- I always feel I could know more because each child and family is so different and varying issues arise when working with said families that are not always known.
- I am comfortable teaming with experienced OTs and SLPs (can help them understand the role/impact of vision and rely on their knowledge of motor etc.). However, my narrow experience (mostly work with school aged kids) and small knowledge of resources does not allow me to be very effective with a less experienced team.
- I am concerned about the child aspirating.
- I can never have too much information/learning/training about feeding and mealtime skills.
- I can't seem to come up with a "fix" that works right away. I always use routine and then we experiment within that to find what works. and a little bit YES in some ways yes I feel I can help because I can let them know they are not alone, VI eating issues exist most of the time for all my VI kids and that helps parents not feel like a failure.
- I could always learn more. Families are very dynamic and changing. As family structures and routines change, so must our delivery and approach to helping.
- I could always use more training around feeding as it is always evolving and changing depending on the family, culture and child. There is no one specific feeding program that works for all children.
- I depend of teaming with family and EI SLP or OT
- I do not have any professional training in this area. However, I do feel that my experience in the school system and in early intervention had given me many opportunities to work with families on these routines and how to adapt things visually. I could benefit from having more knowledge and multi-disciplinary approach.
- I do not have training in this area.
- I don't feel I have the expertise to support families
- I don't have the background or knowledge
- I don't remember seeing opportunities specific to this area being offered.
- I feel I can address the role that vision plays, and can help families create mealtime routines but beyond that I defer to the feeding specialist, SLP and OT.
- I feel I have a good amount of experience but could always use more training and ideas
- I feel I have a good knowledge base and decent skills to teach families, but I also feel I could always learn more techniques and get more experience to become more successful in this area.
- I feel it is a collaborative effort with speech and OTs, would not want to make decisions alone.
- I feel there is always more that can be learned. I have only scratched the surface of what there is to know about visual impairments and feeding.

- I feel this is a pretty specialized area - I have some training in feeding disorders but have not used this training much in the past 7-8 years. I think it is vital to have a team working together with the family to achieve the best results.
- I have a decent amount of experience, and have acquired knowledge from fellow EI providers with feeding training, and learned concepts and strategies for modifying routines for children with VI, but I have not obtained any specific training in the area of feeding or meal time routines.
- I have a vague understanding of normal mealtime development based on raising my own children. I have tried to talk to families about how to start the feeding process, beginning with holding a bottle and finding bottle on table and finger feeding. Most families have their own stresses and struggles. While I try to tell families to never let meals/food be a power struggle I also tell them they have to do what they need to do. I find most families will let the child's pickiness or "helplessness" rule the family meals.
- I have experience with older children with VI (3-21), some of whom have eating issues and with typical eating development so I can address some of the texture, vision issues but do not have a lot of experience with infants and toddlers.
- I have had a lot of informal training in collaborating with other therapists on the early intervention team, but it certainly would be helpful and useful to have more training in this area as it is such a critical skill and part of our lives. We also work with many children with multiple disabilities that have g-tubes and are not yet feeding by mouth or are slowly transitioning to solids. It would be wonderful to learn more about how to target mealtime skills for this population for which mealtime is a bit more non-traditional.
- I have had minimal experience and training in this area.
- I have no real education in this. My only knowledge comes from hands on experience.
- I have no specific training in this area, but I have learned from SLPs and OTs over the years I've been a TVI but no official training some experience
- I have not had formal training.
- I have not received any direct training. I have done self-study through courses, reading books, articles, etc. and working with OTs.
- I have read articles, observed a feeding program at our facility and suggested changes for children who are blind. But I typically leave all but passing along articles and showing a mealtime skills video to the "pros"- the speech and language therapists.
- I have some understanding but not a ton.
- I have some, but I know I could use more ideas and training
- I just don't feel like this is a topic that is often discussed in trainings
- I never feel I know enough
- I no longer work with EI children. I work with preschool children.
- I prefer to allow the OT or SLP lead these conversations with families-- we follow the primary provider model.
- I rely A LOT on my team and their expertise. I guess it is just one area that I didn't have to be an expert in.
- I suppose I have had sufficient training and experience through the years but refresher and updates are always helpful
- I was not specifically trained in this area and am always researching or collaborating with other practitioners for guidance.
- I work with other therapists who deal more with it.

- I would like more specific information on development of utensil use, and how cultural differences impact family perceptions of US expectations for milestones and practices.
- I would say NO if working alone. I would say YES when working collaboratively with other disciplines.
- I would want more specific resources and feeding information to share with families and other team members.
- If the child has a mild visual impairment I feel more confident then with a child who is totally blind. With my student who is blind she is also tactically defensive and does not like to touch anything or put anything into her mouth. Developing independent feeding skills has been a challenge due to these sensitivities.
- I'm confident with my skills that I could support the families as needed, but not necessarily trained in monitoring or having in depth knowledge of what is appropriate.
- I'm not sure how to determine a defensive response is due to vision vs. tactile and how to reduce tactile defensiveness related to eating/mealtime.
- It is hard to experts in early intervention in the area of visual impairments
- It is not my area of expertise, I would refer to an SLP or feeding specialist
- I've seen this as the domain of the OT/speech. In practice however most of these don't do capacity building or routine based intervention, so feel there is also opportunity for O&M input.
- Just not enough experience or knowledge to go beyond the very basics.
- Lack of instruction
- Lack of training
- Luckily we have a great team of therapists and teachers to work with so we are able to come up with some plans for families regarding mealtimes. However, we feel very inadequate and often tell families to talk with their medical providers regarding feeding concerns. Any information that can be shared, especially via online workshops that are free or at a low cost, would be appreciated by school staff.
- Minimal skill and comfort
- More suggestions and strategies is always helpful
- Most often, the OT or speech therapist assists with feeding. They may consult with me about a few things, but it's rare.
- Mostly trial and error. No formal training and limited opportunity with children on caseload.
- My agency has not offered specialized training in this area. I believe with the vast number of areas of information and training needed to be an EI therapist; it is up to Part C to provide this at no cost, on a convenient platform, at a several different times to accommodate schedules (including last evenings).
- Need more hands-on experience
- Need more training on issues with sensory and eating due to visual impairments.
- No - there are other specialist who are more qualified and have the training.
- no focused training, just gathered skills and knowledge along the way, piecemeal education; experience
- No formal training specifically related to mealtimes and the visually impaired
- No not at this time. I see information from other professionals like SLP or OT.
- No, because the majority of my students are older. This age gets assistance in the classroom through Early Childhood SPED programs. I assist as needed.

- No, I don't have enough training or experiences to support families and children in the area of feeding.
- No. I have previously used more of a sensory approach with the children that I have worked with in the past, allowing them to use all other senses to help with accepting more foods. Also, I have worked with other EI providers to gain knowledge from strategies that they have given.
- No. It is not my area of expertise. My confidence comes from working in collaboration with colleagues. I would welcome further support in this area. Every child is unique and this is a critical area of development.
- No. My education didn't cover this area so I've done what I feel is appropriate.
- Not at this time. I am fairly new to the field and did not receive much if any information about feeding during my schooling and/or professional development. I would love to learn more about it so I can support my students and families.
- Not by myself. I typically collaborate with team members and the family to come up with ideas and strategies.
- not enough knowledge
- Not enough training
- Not enough training
- not enough training or information, specialized support available
- Not in my area of expertise.
- Not much professional training or experience.
- Not really. I don't know enough about how to be successful with foods and textures a child doesn't like and how to increase the success, especially when they have a gag reflex. I'm afraid they are going to choke.
- Not sufficient training
- Since I am just an early interventionist, I feel like I have a broad knowledge, but that is where I would then refer to a feeding therapist for more specific knowledge. I have been trained in CVI by Dr. Roman, so I have a few tips for meal time, but not as in depth feeding issues.
- The cultural situation is very different and even discussing eating seems to be problematic.
- The more knowledge that I have in order to help a variety of families the better. Every child and his development is different.
- The skills I have gained in this area are from consultations with other clinicians in areas of OT and vision. I have not attended any special trainings or classes.
- The students I worked with had other professionals who assisted with mealtime skills as we as myself. I would like more training in this area.
- There are usually many other factors in play, such as oral aversions, tactile issues, etc. that I am not as knowledgeable about.
- There is zero training for that for Moderate to Severe Teachers
- There is always more to learn and the medical model "feeding team" specialist seem rather rigid and not coaching or empowering to the child and family
- There is always room for more training and skill development as a therapist. We are not very good interventionist if we aren't open to new ideas to help our families cope/adjust with feeding issues.
- There is always room to share new idea and learn new supports. New research may present a better and more effective way of doing things.

- This is a difficult area with very little training in our VI professional programs; most of the training has come from EI programs
- This is such as small part of my caseload, so I have not had training in this area.
- Too new to the position
- Usually just talk with the OT and work with them to see what we need to do to help each child be successfully
- We can always learn from other teams' practices, when working in culturally varying situations. Good examples from other caregivers are important parts of my lectures.
- Well, I feel pretty comfortable as an OT in that we tend to make a lot of adaptations and have access to a lot of equipment and that type of training to modify tasks so our children and families are as successful as they can be. I guess it depends on the type of visual impairment, quite frankly, if there are any other limitations impacting the child along with the visual impairment, and the family situation, so if all those were factoring in at once and the level of visual impairment were quite severe, then I would want more training and resources at my disposal, though I am lucky in my state we have an outreach consultant who comes around and gives suggestions.
- With most children on my caseload that may have feeding concerns, there is usually an OT or SLP involved that assist with feeding concerns. Any issues regarding feeding, I usually address to them.
- You can never have too much training for anything

Other Feeding/Eating Resources Available

These were other resources reported by respondents:

- All these supports are available in my area, however they are generally recommended by speech or the nutritionist.
- Anchor Center Transdisciplinary Team
- Children's Hospital is a wonderful resource for our area
- Collaborative work with Functional Vision Educators and Speech/language Pathologists
- Colorado School for the Deaf and the Blind
- Developmental pediatricians appear to have very limited understanding of vision impairments on overall development. Many, many, many of my clients are diagnosed as autistic, profoundly, severely, moderately, or mildly cognitive impaired. These pediatricians know very little about cortical vision impairments. If vision loss or impairment is not physiological and structural my clients are not identified by the medical community. Children with physiological vision impairments are also diagnosed this way. Often there is no reference to vision impairment in reports made at the time of diagnosis. I have seen children's vision tested with toys that make noise. I have seen reports where a child who cannot see cars moving on a street from a side walk diagnosed as autistic using criteria that was all vision based. Probably because he looked bubbles. The medical community knows almost nothing about this population. Thank you for doing this research. I hope it opens doors for my kids.
- Don't know!
- Don't know. We have speech and language pathologists to consult with.
- Early Intervention Occupational therapist.
- Early Intervention Services
- EI providers
- Feeding specialists (SLP)

- First Steps
- First Steps
- First Steps Providers
- Former colleagues who are knowledgeable in this area.
- Have never looked into this. We have talked about in our workshops with other EI folks.
- Have not had a lot of success in connecting or learning from hospital based feeding therapists
- HMG Home interventionists, Occupational therapists,
- I am not sure
- I am unfamiliar with resources
- I believe the above are available, some are about an hour away, and one family utilized that which was a private feeding therapy program. The Early Interventionist has collaborated more with the dietitian and the family.
- I have a network of other SLP's and OT's to contact if needed.
- I have resources to refer families to but I have never thought to call them myself. Often, most don't usually address what to do with the kiddos who have vision impairments, who have feeding issues, in their workshops or presentations.
- I know they are out there but have never accessed them
- I serve rural districts/counties not near the big city hospital based feeding programs (which families in our region wait on lists for months or years to access)
- I talk to the OT and SLp regarding specific eating issues with shared students.
- I'm sure they exist, but I'm unfamiliar what they are as I'm rather new to the area.
- In some places everything is available, in other places the support must be given via emails or even letters.
- Inservices presented locally by TTAC and UVA.
- Medical feeding clinic
- No longer work so I am not sure what remain as resources, but I have worked with all listed above in the past.
- No.
- None that I am aware of.
- Not sure what is actually available, but aware that there are programs. Would want more of quick tips to helping with VI & feeding eating.
- On-staff OT consultative services
- oral motor specialists
- OT with feeding training
- OT, nurse, and speech people on EI team, and WIC and Health Dept.
- OT, SLP
- Other EI providers on my EI team with specific training in feeding
- OT'S
- OTs and Speech Pathologist
- OT's and therapists at Ca Children's Services are available, as well as GI doctors; however there is still a gap in services. Regional Centers do not provide services if the need is considered to be medical and not all families have access to medical feeding therapy. Families can sometimes access an OT who will work on oral motor development, and some are trained in sensory

integration that supports feeding, but finding a good feeding therapist who can address all of these needs is challenging.

- OT's EI's and SLP's
- Our EI SLPs have a considerable amount of experience.
- Part C specialty feeding or therapist programs.
- professional friends
- Professionals do not have a specialty in working with children with VI and the parents don't feel supported.
- Public health nurse that works with some of the children
- SLP and OT (who has had specific training on feeding issues)
- SLP's on EI team with training in feeding.
- SLPs, PTs, other DTs, family pediatricians, OTs when available
- Some Occupational Therapists or Speech pathologists who work for my organization can be helpful. Other than that, I currently have no other resources.
- Speech therapist specializing in feeding issues with blind babies
- Speech therapist, some ECI developmental therapist have strong background in feeding
- Speech Therapists
- Teacher of the visually impaired
- There is a hospital 5 hours away that can evaluate the child and make recommendations on what the family can do to encourage feeding/eating.
- There is a registered dietitian on one of my cases and she would probably be very willing to share information. There is hospital-based feeding program but I've never called them to ask if I could speak with someone...not sure how that would go.
- Use of OT, Speech therapy professionals
- Various colleagues, both on specific child teams and people I know at various agencies not connected to children
- Yes - our Speech Lang. therapist is trained

University of Northern Colorado MRVI Intervention Study
An Institute of Education Sciences Project

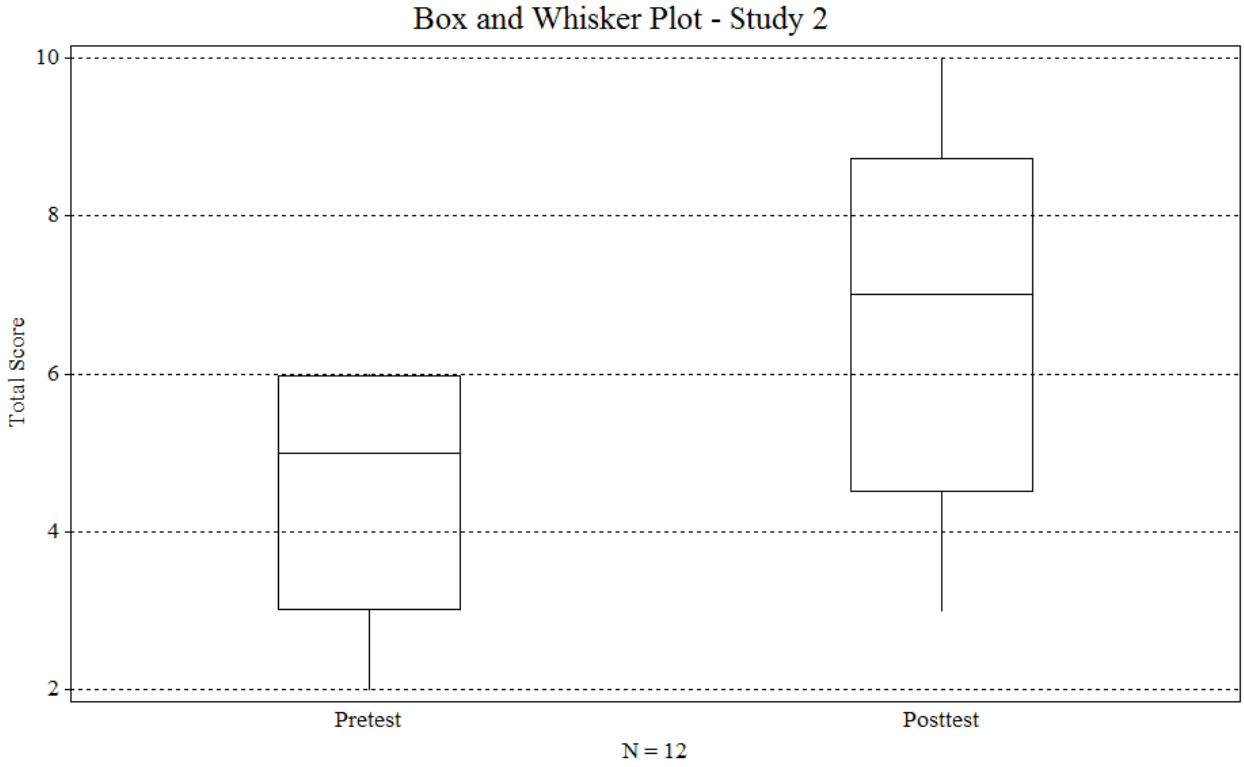
Study 2: Typical Mealtime Quiz Findings

Study 2 participants completed the 15-item survey at the beginning (January 9, 2017) and end (January 13, 2017) of the workshop. Number of correct responses on the pretest and the posttest for each of the items is displayed below.

Number of Correct Responses on the Pretest and Posttest

Item #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
# correct pretest	8	4	1	5	4	2	2	4	3	5	4	0	0	2	9
# correct posttest	4	10	2	6	4	2	6	5	6	5	3	2	12	4	9

Total scores were calculated. While pretest total scores ranged from 2 to 6 points, the posttest total scores ranged from 3 to 10. The following chart box-and-whisker plot displays the total scores for the pretest and the posttest. Pretest and posttest median scores were 5 and 7, respectively.



The increase in mean scores from pretest to posttest was significant ($t = 2.90$, $p < 0.0083$). Pretest and posttest total score statistics are displayed in the following table.

Statistics for Pre/Posttest Total Scores (N = 12)

Pretest					Posttest					t-statistic	p-value
Mean	Std. Dev.	1st Quartile	Median	3rd Quartile	Mean	Std. Dev.	1st Quartile	Median	3rd Quartile		
4.42	1.56	3	5	6	6.67	2.19	4.5	7	8.75	2.90	0.0083

Reported by Rose Shaw, Ph.D.
January 18, 2017

Study 2 Practitioner Impression Journal Results

During the MRVI Study 2 training, participants were asked to share their thoughts each evening through the following three questions:

1. Tell us something that you learned today that was a surprise. What are your thoughts about why it was a surprise for you?

2. What have you learned today that you feel will be a success for you during the use of the MRVI Intervention with families? Why do you think this?

3. What have you learned today that you think might be a challenge for you during the use of the MRVI Intervention with families? Why do you think this?

Their responses have been collected by question, and two individuals independently analyzed the content into themes. In content analysis, an acceptable level of interrater agreement is a Kappa of .60 (Johnson & LaMontagne, 1993). Initial interrater agreement was established at .85 (11 out of 13) for Question 1, .76 (13 out of 17) for Question 2, and .88 (7 out of 8) for Question 3.

Content analysis is a method of collecting written responses from participants to better understand their attitudes and opinions as they move through the training process. The quotes below reflect **some of the themes** discovered from the Study 2 training.

Question 1: Tell us something that you learned today that was a surprise. What are your thoughts about why it was a surprise for you?

Typical Development

I realized I don't know as much as I thought I did about typical development and feeding.

Social Emotional Importance

I guess I was surprised at how the social/emotional aspect of feeding can have such an impact on a child.

Picky Eating and Nutrition Information

That there is a difference between a picky eater and a problem eater was a good distinction, and I had not seen these definitions from a nutrition standpoint before.

Motor Development

As you could tell by my facial expression, the entire gross motor/visual impairment piece blew me away. This is something that I've been taught and have been teaching my parents. It's an entire change of thinking and teaching.

Oral Stimulation

I was surprised that there is no evidence that oral/motor therapy helps feeding or language skills.

Family Centered-Practices

It is nice to know that other professionals out there are still trying to change their way of thinking about routine based therapy.

Role-Play Benefits

Reflecting on the video-taping, it was uncomfortable and if I looked at it I probably would not recognize myself. I know that the videotaping was to give us confidence and practice to upload the video and that helped a lot. I feel more confident and ready and excited to incorporate the new knowledge in my every day practice.

Question 2: What have you learned today that you feel will be a success for you during the use of the MRVI Intervention with families? Why do you think this?

Typical Development

I will be able to use the knowledge gained about typical feeding development as a road map to guide the family toward next steps in feeding. Without knowledge of what typical kids can do, it's difficult to gently "push" families along that road. It's easy for us to forget what is typical.

Family Centered-Practices

I'm familiar with the primary or comprehensive care provider model but today was the first time I really understood it. Today I actually realized how it benefits children and families.

Social Development

I have a new awareness for the whole social/emotional side of feeding.

Online Resources

Having resources will help solidify this for families; something concrete to leave for them to reference over and over.

Idea Sheets

I think using the IDEA sheets with families will be successful because it will provide an opportunity for both myself and the parent or caregiver to reflect on the current state of mealtimes and then allow the parent to choose what they want to work on, and we know when we have ownership of something we tend to be more successful with it.

Parent Support

I think having some information about nutrition in an infant will be helpful to ease parent's concerns about how and what they are feeding their child.

Role-Play

As much as we hated it, the role-play was good. It helped to put into practice how this might go during a home visit. I think I'm more ready now than I might have been.

Strategies

All of the things that were shown to us as adaptations will help me to be successful in helping families.

Technology

Taking the videos and practicing uploading them onto OneDrive will really help me to be successful throughout this study.

Question 3: What have you learned today that you think might be a challenge for you during the use of the MRVI Intervention with families? Why do you think this?

Time

That would probably be my challenge---I want to do things right, but am realizing that this will be time consuming

The challenge I will have is to allow the time needed for the child to become engaged and trusting

I guess the biggest concern is accomplishing all the assignments along with my everyday responsibilities.

Organization

I think I am going to have to practice more with integrating the idea sheets and guiding the parent to decide what they want to work on the during the intervention period and make sure the parent agenda is honored.

I think that learning to use the BEET IT will be challenging at first. The length of the document seems daunting, but I imagine that once I start using it with my family, it will become easier to navigate.

Practitioner Concerns

I think there will be some level of anxiety during the first few mealtime routines. Not an extreme amount but because I care about families and I care about doing things correctly, I will worry a little.

I may feel challenged by staying focused on this goal, as there are so many other areas that need to be discussed with the family as well. I am challenged by the many pieces and hope I can stay up with them. I also think it will stretch me to be a better teacher.

Technology

I think that this project will make me more serious in my attempts to reflect with the family using video.

I will need some practice to learn the assessment tools so that it is efficient to use with families.

University of Northern Colorado MRVI Study
Summary of Responses on the Evaluation Form for Study 2

Nine individuals completed this evaluation form. Seven respondents felt the length of the training day was "just right" and two respondents felt it was "too long". No one felt it was "too short". These were comments about the length of the training day:

- A little long but understandable with all that we needed to get in during the timeframe that we had. Maybe for next time, having a break in the afternoon and then meeting for a couple hours after dinner would be nice.
- Again, there was a lot of information that needed to be covered which called for the long days.
- I think I would have liked breakfast served at the room that we learned in instead of at the hotel, and a snack small lunch and then a big dinner later.
- More breaks would have been great!
- The days were very full--but I didn't mind.
- Not a huge amount of too long. I think stopping at 4:00 pm so dinner could have been a bit earlier each night would have been good. By the time we finished dinner and got back to our rooms it was usually close to 8:00 p.m. so it was difficult to review and follow up with the each day's learning and evening task. Another thing that may have worked was go to 5:00 p.m. Monday, Tuesday, Thursday- then go to 2:30 on Wednesday so people could have had some daylight afternoon time to see the area or go shopping (just a little down time-but team building as well). Just a thought.

Topic 1: Pre-Training Information and Assistance

Two fixed choice items on the evaluation form were "yes" or "no" with space provided for comments. The frequency distributions of responses are displayed in the following table.

Pre-Training Preparation

Statement	Number of Recorded Responses	
	Yes	No
I was given enough information to prepare for the training	9	0
The facilitators of the training were available to help me (e.g., answer questions, arrange travel) in a timely manner.	9	0

These are the comments recorded about each of these two topics. There were four comments about the information and two comments about the availability of assistance from the facilitators.

COMMENTS: INFORMATION (N = 4)

- Other than it would have been nice to know how much memory our iPad would need for the video uploading.

- I feel as if the information given was sufficient in preparing for the training. My barrier was that I was given a "wait and see" response which left me feeling a bit out of sorts during the training.
- I think we had enough basic information before coming to the training, but it would have helped to do a big overview of the project and our part in it on day 1. It might have helped things click a little faster.
- Great contact via e-mail

COMMENTS: AVAILABILITY OF FACILITATORS (N = 2)

- The team was amazing. They were able to meet before, during breaks, at lunch; etc. This leads me to believe that I can call on them with questions that they will be quick to respond as well.
- Very accommodating!

Topic 2: Training Features

Six questions with three fixed choices (yes, somewhat, and no) were about training goals, organization, pace, networking, helpfulness of the information, and content balance. The questions and distributions of responses are displayed in the following table.

Training Features

Statement	Number of Recorded Responses		
	Yes	Somewhat	No
The goals of the training were clearly defined and communicated.	4	0	0
The topics were relevant and organized in a logical manner.	9	0	0
The pace of the training was appropriate to the topics covered.	6	3	0
There was sufficient opportunity for interactive participation	9	0	0
The format allowed me to get to know the other participants.	9	0	0
The information and materials provided during the training are helpful.	9	0	0
The training incorporated a good balance of lecture, video, activities and participant involvement	9	0	0

These are the comments (with minor editing) recorded about each of these five topics.

COMMENTS: TRAINING GOALS (N = 4)

- At first, I was a bit confused with everything. It all tied together and began making sense at the end of the second day.
- I think I would have liked to know more about what our part in the study would be afterwards and what the training would be like. I would have liked more role playing and more focus on the interventions on the "idea sheets"
- I think there was some initial confusion, but you cleared it up when you gave us the project overview.
- It all started to come together as the week went on

COMMENT: RELEVANT AND WELL ORGANIZED TOPICS (N = 1)

- I loved everything and have already started using it in my home visits!

COMMENTS: TRAINING PACE (N = 4)

- For the amount of information given, yes.
- I would have liked some time in between talks to practice the most important things. I think we should have talked more about how to present "typical feeding development" to a parent who is grieving so much loss. I think this is what EI -TVI's avoid because dealing with the disappointment of skill sets happen every day and we are always adding more things for the family "to do" to help the blind toddler develop and it is a bit overwhelming.
- The first few days were overwhelming and felt the pressure. Lots of information to absorb but by the end of the training the pace got easier to handle.
- Was pretty intense the first two days -- overwhelmingly so. But given the limit on how long we could all come for, it was necessary.

COMMENT: INTERACTIVE PARTICIPATION (N = 1)

- I would have liked to hear the stories of the other TVI's experiences with feeding more directly and what they have tried just once in a while. Just to connect and get a sense of what others are doing. I did love the role playing because I liked being the mom and the baby. I have done the TVI part enough -ha-ha- although not with these new tools.

COMMENTS: FORMAT ALLOWED FOR GETTING TO KNOW ONE ANOTHER (N = 3)

- I liked the dinners together.
- It was wonderful to meet everyone and have time to spend together!
- Small groups and our meals together were great ways to meet others

COMMENTS: HELPFULNESS OF THE INFORMATION (N = 8)

- I did feel a bit disorganized and out of sync with all the information with the tablet program and canvas course. It took me a bit to realize that multiple resources were in multiple accessible sites. (There were some cross-over informational resource items between the two sites).
- I do better when I learn one system before moving into another type of system. I'm very visual-so I picture where each link is-so when I am learning two systems with coinciding information I felt a little loss and overwhelmed at times.
- I do realize the need to spend more time with each site and explore more on my own.
- I think if we could have had the Canvas course presented first and spent a little time with that-then the next day be shown the Tablet and worked through that I would have become a little more comfortable with each system. Using separate days for each would have helped my mind be a bit more organized.
- Lots of wonderful resources.
- More than helpful.
- Very much so!!!!
- Yes, I will use materials!

COMMENTS: BALANCE OF TRAINING CONTENT (N = 4)

- Guest presenters and information was really good.
- It was a bit heavy on the talking/power point type of stuff, but I understand because the areas we had to hit on were so diverse and important. My favorite was the nutrition
- I couldn't help but think during each presentation that how much our whole district team of PT's, OT's, and SLP's, B-3 and Preschool teachers would have benefitted from all the information.
- Perfect

Topic 3: Usefulness of Training

The statement of this item was: The training experience will be useful in my implementation of the intervention. The possible responses and the number selecting each of the responses are displayed below.

Yes	Not sure	No
9	0	0

These two comments were recorded:

- I am so much more empowered to move forward in a confident manner with my families because what "I felt" was reflected in what is happening around the country.
- Very much so!!!!

Topic 4: Questions Answered During Training

This statement of this item was: My questions were answered during the training. The two fixed choices and the number of respondents who selected each response are displayed below.

Yes	No
9	0

There was one comment: Definitely! Way on top of answering our pop up questions.

Topic 5: Rating Presenters

Each of six presenters were rated over ten dimensions from 1 to 5 with 1 = strongly agree (SA) and 5 = strongly disagree (SD). Distributions of recorded ratings are displayed in the following table. Identification codes for each presenter are as follows: Alena Clark (AC), Zoe Morgese (ZM), Carol Puchalski (CP), Carol Spicer (CS), Cathy Smyth (CY) and Hasan Zaghlawan (HZ)

Description		**Number of Recorded Responses**				
		SA				**SD**
	Presenter	1	2	3	4	5
Information was presented in a clear and understandable manner.	AC	8				1
Information was presented in a clear and understandable manner.	ZM	8				1
Information was presented in a clear and understandable manner.	CP	8				1
Information was presented in a clear and understandable manner.	CS	8				1
Information was presented in a clear and understandable manner.	CY	8				1
Information was presented in a clear and understandable manner.	HZ	8				1
The presenter was knowledgeable about his or her topic.	AC	8				1
The presenter was knowledgeable about his or her topic.	ZM	8				1
The presenter was knowledgeable about his or her topic.	CP	8				1
The presenter was knowledgeable about his or her topic.	CS	8				1
The presenter was knowledgeable about his or her topic.	CY	8				1
The presenter was knowledgeable about his or her topic.	HZ	8				1
The presenter used my time wisely.	AC	7		1		1
The presenter used my time wisely.	ZM	8	1			
The presenter used my time wisely.	CP	7	1			1
The presenter used my time wisely.	CS	7	1			1
The presenter used my time wisely.	CY	6	2			1

Description		Number of Recorded Responses				
		SA				SD
	Presenter	1	2	3	4	5
The presenter used my time wisely.	HZ	7			1	1
The presenter could have finished sooner.	AC	2		1	1	5
The presenter could have finished sooner.	ZM	2			1	6
The presenter could have finished sooner.	CP	2			1	6
The presenter could have finished sooner.	CS	2			1	6
The presenter could have finished sooner.	CY	2			2	5
The presenter could have finished sooner.	HZ	2	1		1	5
The presenter answered questions to my satisfaction.	AC	8				1
The presenter answered questions to my satisfaction.	ZM	8				1
The presenter answered questions to my satisfaction.	CP	8				1
The presenter answered questions to my satisfaction.	CS	8				1
The presenter answered questions to my satisfaction.	CY	8				1
The presenter answered questions to my satisfaction.	HZ	8				1
The presenter was well prepared for the session.	AC	8				1
The presenter was well prepared for the session.	ZM	8				1
The presenter was well prepared for the session.	CP	8				1
The presenter was well prepared for the session.	CS	8				1
The presenter was well prepared for the session.	CY	8				1
The presenter was well prepared for the session.	HZ	8				1
The presenter encouraged active participation.	AC	7	1			1
The presenter encouraged active participation.	ZM	7	1			1
The presenter encouraged active participation.	CP	7		1		1
The presenter encouraged active participation.	CS	7	1			1
The presenter encouraged active participation.	CY	7	1			1
The presenter encouraged active participation.	HZ	5	2			1
The presenter used a variety of training methods.	AC	5	2	2		
The presenter used a variety of training methods.	ZM	5	4			
The presenter used a variety of training methods.	CP	5	3	1		
The presenter used a variety of training methods.	CS	6	3			

Description		Number of Recorded Responses				
		SA				SD
	Presenter	1	2	3	4	5
The presenter used a variety of training methods.	CY	7		1		1
The presenter used a variety of training methods.	HZ	5	2	2		
The presenter was respectful of the different skills and values represented by the participants.	AC	8				1
The presenter was respectful of the different skills and values represented by the participants.	ZM	8				1
The presenter was respectful of the different skills and values represented by the participants.	CP	8				1
The presenter was respectful of the different skills and values represented by the participants.	CS	8				1
The presenter was respectful of the different skills and values represented by the participants.	CY	8				1
The presenter was respectful of the different skills and values represented by the participants.	HZ	7			1	1
I would have liked to hear more from this presenter.	AC	4	3	1		1
I would have liked to hear more from this presenter.	ZM	5	2	1		1
I would have liked to hear more from this presenter.	CP	7	1			1
I would have liked to hear more from this presenter.	CS	7	1			1
I would have liked to hear more from this presenter.	CY	4	3	1		1
I would have liked to hear more from this presenter.	HZ	5		3		1

Topic 6: Travel and Transportation

The fixed choice responses to these three statements were: yes, pretty much, or no. Item statements and distributions of responses are displayed in the following table. Recorded comments follow the table.

Travel and Transportation

Statement	Number of Recorded Responses		
	Yes	Pretty Much	No
My travel was arranged easily and in a timely manner.	8	1	0
The instructions for how to get from the airport to the hotel were clear and understandable.	9	0	0
Transportation to the Denver Airport was convenient, comfortable and satisfactory.	8[NOTE]	0	0

NOTE: This statement was not relevant to one respondent.

COMMENT: TRAVEL (N = 1)

- The travel agent had my connecting flight too soon from when I landed. I almost missed connecting flight.

TOPIC: Hotel Roommates

Eight respondents preferred not sharing a room. These were comments by two of these eight respondents:

- It was nice to be able to go back to my room and have some down time and not having to worry about being a nuisance to someone else.
- I am sort of in need of quiet at the end of group things.

One individual recorded, "Maybe," in response to the statement: I would have preferred to share a room with another participant.

Topic: Hotel and Training Room Features

Hotel location and features were evaluated by the respondents. The possible responses were yes, no and somewhat. Statements and frequency distributions of responses are displayed in the following table. Recorded comments are also displayed.

Hotel Features

Statement	Number of Recorded Responses		
	Yes	Somewhat	No
My room was comfortable and clean.	9	0	0
The hotel location was convenient to the training facility, restaurants and entertainment.	9	0	0
The training room and related facilities provided a comfortable setting for the training.	9	0	0
The training environment (lighting, internet, seats) met my needs.	6	3	0
The hotel's breakfast buffet met my nutritional needs and preferences.	7	1	1

COMMENT ABOUT THE ROOM (N = 1)

- Lovely! thank you

COMMENT ABOUT THE TRAINING ROOM AND RELATED FACILITIES (N = 1)

- Beautiful

COMMENTS: TRAINING ENVIRONMENT (N = 5)

- I don't think the internet was ready for so many people, but it worked
- Internet was a little wonky when everyone was trying to upload videos, but that wasn't a big deal-
- internet was slow, but it is a non-profit school, so I can't complain
- It was bright sometimes but nothing I couldn't work around. The internet was slow when we all tried to upload things but that would happen anywhere.
- Lighting was difficult at times because of the windows

COMMENTS: BREAKFAST BUFFET (N = 4)

- Bonus: Finding out that we could order omelets!
- Did not know that we could order an omelet until last day. That was much better than the eggs on the buffet. I would have been happy to have extra time to sleep in in the mornings and had bagels and fruit available at the training.
- I thought it was overpriced and not very nice. I would have rather the grant spent five dollars on a simple bag of granola and fruit for me. But, it was nice that if others really needed breakfast that was hot, they could get it.
- Way too expensive.

TOPIC: Nutritional Needs in Snacks, Luncheons and Dinners (N = 3)

Training participants were asked if the snacks, luncheons and dinners met their nutritional needs and preferences. The response choices were: Yes, Sometimes, and No. Numbers of respondents who selected each of these responses were: Yes (9), Sometimes (0) and No (0). These were the comments:

- I think I gained a couple pounds!
- We were treated like royalty. We did not want for anything! Snacks, Lunch, Dinners were expertly planned and executed. REALLY, it was nothing short of amazing. Thank you so much.
- Thank you so much!

TOPIC: Free Evenings

Six respondents would have liked to have their evenings free “sometimes” and three respondents would not have liked to have their evenings free. These were the four comments about having evenings free:

- I loved our evenings together
- I think two designated evenings off would have been good. I don't know if it would be possible, but Friday was sort of a waste. If we all checked out of our rooms Saturday morning, we could have really had a good night of good byes and more time to reflect on what we learned on Friday. I think a day to SHARE what we learned and synthesize it together would have helped solidify it instead of a quick cut off.

- I think it worked out fine--we could go on our own if we wanted there was no pressure. I enjoyed my evenings with the group and on our own too.
- It would have been nice to be able to see some more of the area. People laugh when I say I went to Denver and saw the hotel and the training facility.

TOPIC: Self-reported Competency for Implementing the MRVI Intervention

Eight individuals rated their competency for implementing the MRVI Intervention with their families. The response choices and the frequency distribution of responses are displayed below. There were no comments.

Extremely incompetent	Somewhat incompetent	Neither component nor incompetent	Somewhat competent	Extremely competent
			5 responses	3 responses

TOPIC: What was Best, Could be Improved, and Suggestions

These were the responses to the question: **What did you like best about the training?**

- Everyone works well together and there is such a wealth of knowledge, passion and excitement among the whole research team. I was honored to learn from the best!
- I like to call the researchers, "THE DREAM TEAM" because everyone is really the best of the best.
- I loved the whole week! I really liked the nutrition piece and Routine Based model even though I've heard that information SO much-it clicked this time! It really was all so great!
- In addition, I don't think I have ever been to a training where there was absolutely zero drama, everyone was open and kind and helpful-no problems, no worries. The ability to collaborate with other professionals who do the same job I do. And the topic, which is so key to our kiddos.
- Meeting everyone in the field. Getting to know everyone during dinners. Learning more about an area that has limited trainings and interventions in the field of visual impairment and early intervention.
- So much great information from very knowledgeable people. It was great to be with a group of teachers who do what I do.
- That it was all though up by real ot, pt, tvi, slp who saw a need and created a program based on real life situations of families. it is authentic and not thought up in a vacuum
- The variety of and knowledge of presenters. I liked the mix of lecture, informal discussion and videos.
- The variety of presenters and the wealth of information that was shared

These were the eight responses to the question: What did you like least and/or what do you think could be eliminated?

- I am not sure that there is anything that would need to be eliminated. It was very helpful to go over the typical development in all the areas around eating and feeding skills. Learning about

strategies was great. I had gone to routine based trainings before but a refresher is always good to have and Dr. Zaghlawan was wonderful.

- Videotaping ourselves ha-ha--I understand it was necessary but I didn't love it!
- The days were so long that by Friday, my mind was spent. I know they had to be in order to get all of the information in.
- Not getting an organized list or sequence of the pieces needed for the study. It is somewhat difficult to find what is needed on the canvas site, and I need to go through the whole thing to find what I need. The items are not named well for searching.
- I don't think there is anything to get rid of. If anything, I wanted more of what we got, just spread out with some brain "down time" in between sets or a creative moment in between sets.
- I didn't like the role play at the end. I felt that it wasn't an accurate way to gather information about knowledge received (it was fun though)
- I seriously loved everything! I am not kidding.
- Not sure

These were the eight responses to the question: We know this has been a long questionnaire, but do you have any suggestions or recommendations for us?

- No, the training was wonderful and I am so glad that I participated.
- No, I really think it was great! Great information, qualified and fun presenters, great food, comfortable accommodations, fun people and well organized! Thank you so much for allowing me to be a part of this project. I hope I can do a great job!
- Not really. I feel that this was a very organized training that had a lot of ground to cover. In the beginning, it felt like it wasn't so put together, but by the second day, it all worked out.
- I would like the study to compile videos with parents' permissions that show other families LONG wait times to allow the magic to happen. SHOWING the process takes time and will eventually work is better than just TELLING. Our kids look "interesting" and we see them do all these things as tvis and we get used to their interesting ways of eating, but I think parents need to SEE other kids looking "different" at the table and how the other parents made it through.
- I wish everyone luck with the study! It's an important area to research and the information shared during the training was great.
- Thank you!
- I am looking forward to the checklist! I think that will be especially helpful for providers during our first few visits.
- Thank you for everything!

UNC researcher receives $1.3 million grant for study

Staff reports

May 20, 2016

University of Northern Colorado researcher Kay Ferrell has received a $1.3 million grant from the U.S. Department of Education to study infants and toddlers with visual impairment.

Ferrell, Jamie Erskine and doctoral candidate Catherine Smyth are working to develop a model to help families establish mealtime routines for those children to help set them up for independence in school settings, according to a UNC news release.

The $1.291 million grant covers three years of research, and Ferrell will work with agencies that provide early intervention services for infants and toddlers nationwide, according to the release.

This isn't the first major grant Ferrell has earned. Since 1982, Ferrell, an expert on development and education of individuals with visual disabilities, has had 76 proposals funded to the tune of $17.5 million, according to the release.

UNC researchers to address mealtime struggles for visually impaired children

November 3, 2016

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Hide Caption

Catherine Smyth stands outside her office in McKee Hall on the University of Northern Colorado campus in Greeley. Smyth, Kay Ferrell and co-investigator Jamie Erskine are developing an intervention model that will help families and practitioners establish mealtime routines for children with visual impairments.

How do children with visual impairments learn to be independent during mealtime, and how does that translate to success in the classroom?

University of Northern Colorado researchers, headlined by doctoral candidate Catherine Smyth, are addressing both questions by building a groundbreaking program to help parents and kids in this important time.

Smyth, Kay Ferrell and co-investigator Jamie Erskine are developing an intervention model that will help families and practitioners establish mealtime routines for children with visual impairments, according to a recent UNC news release that announced a $1.291 million grant from the U.S. Department of Education that will fund the study.

Smyth answered a few questions related to this research:

Question — What inspired you to work in this particular field or on this particular topic?

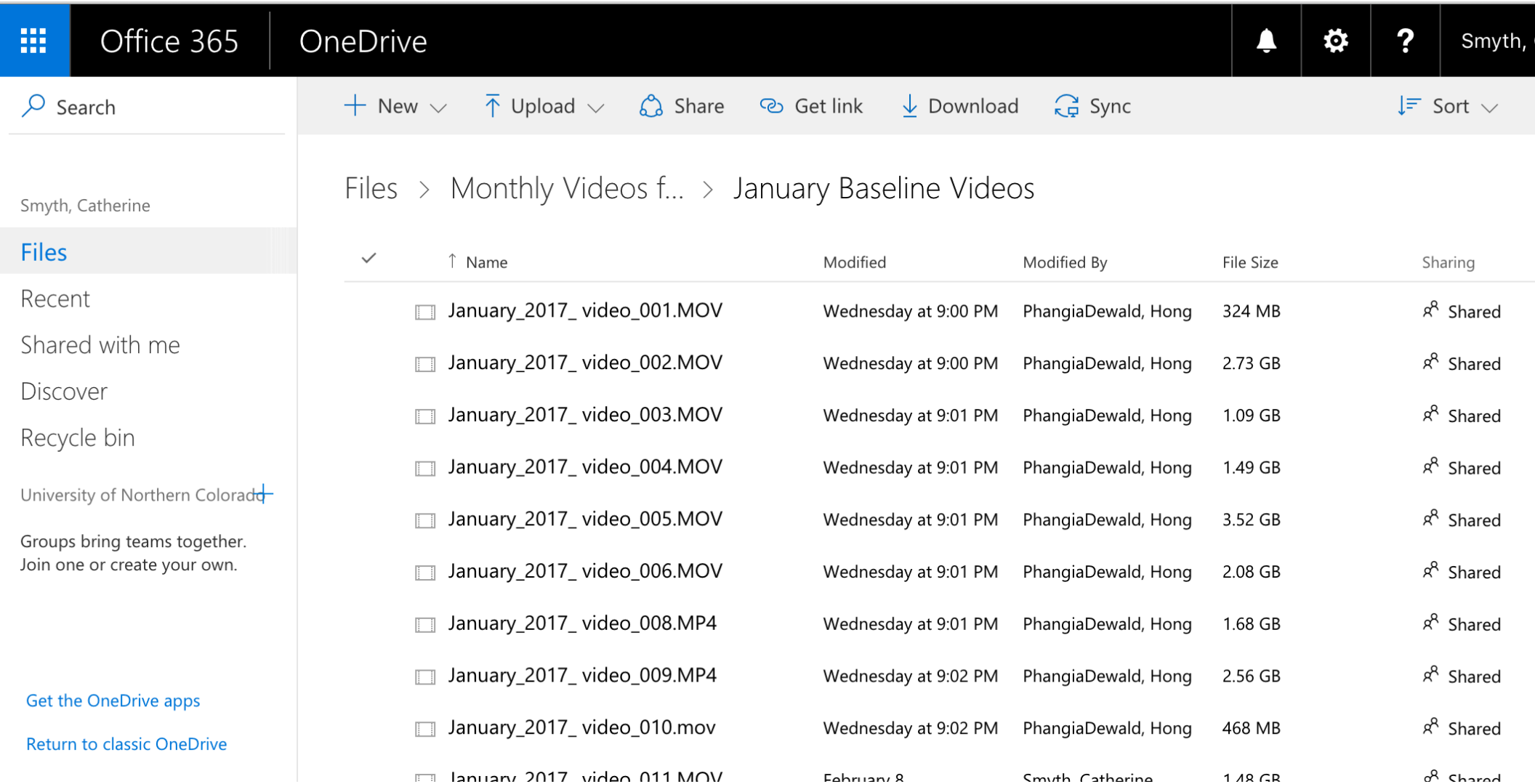
Answer — I have worked with young children with visual impairment (ages birth to 3) and their families for many years. I was privileged to be involved in an exploratory research project funded by the Gerber Foundation during 2008-11. We recorded family mealtime routines on video and interviewed parents to find out what was going well and what was challenging for them as their child learned to eat independently. It was a life-changing experience for me, and I realized how emotional it is for families if their child is not succeeding in this important area. Participating in this early research project through my work inspired me to go back to school at the University of Northern Colorado.

Q — Why is this research important?

A — Mealtime routines encourage children to develop behaviors that foster independence, a critical skill for success in classroom settings. However, most infants and toddlers with visual impairment require assistance at mealtime due to their inability to observe and imitate mealtime skills and engage in positive social interactions through eye contact. In addition, there is research that links good nutrition and positive mealtime experiences to improved academic performance.

Q — What is the best or most surprising thing you have discovered in your research?

A — I think the best part of being involved in this research is learning how eager parents and early Intervention providers are to learn about what we have discovered. This area of research has not really been addressed and there are many opportunities to create new assessments and strategies to use with families. I am so very excited to be working with the research team and the consultants to make things better for families in a meaningful way.


Office 365
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Download
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Smyth, Catherine
Files
Recent
Shared with me
Discover
Recycle bin
University of Northern Colorado
Groups bring teams together.
Join one or create your own.
Get the OneDrive apps
Return to classic OneDrive
Name
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Modified By
File Size
Sharing
January_2017_ video_001.MOV Wednesday at 9:00 PM PhangiaDewald, Hong 324 MB Shared
January_2017_ video_002.MOV Wednesday at 9:00 PM PhangiaDewald, Hong 2.73 GB Shared
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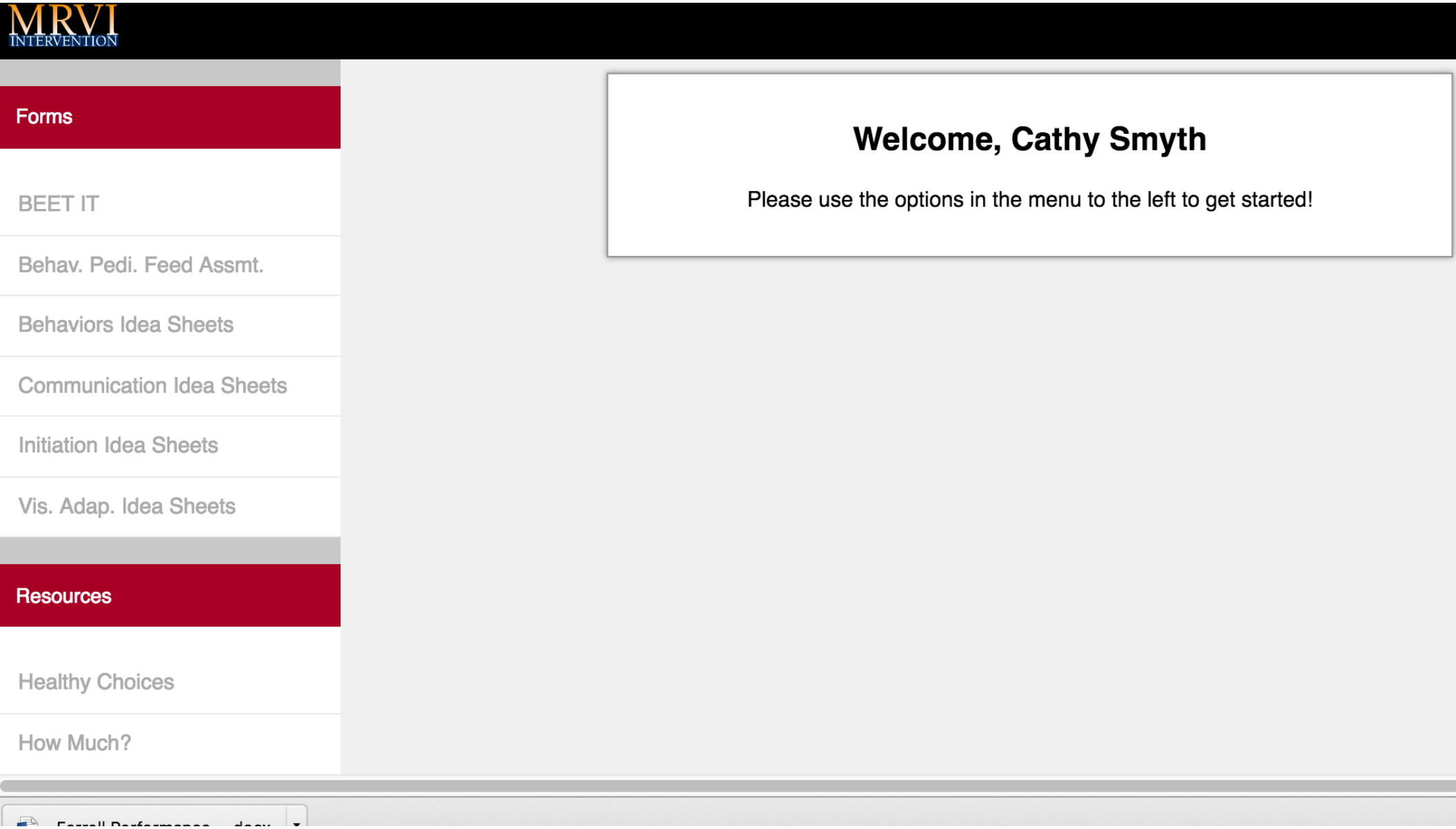
January_2017_ video_011.MOV February 8 Smyth, Catherine 1.48 GB Shared


MRVI
INTERVENTION
Forms
BEET IT
Behav. Pedi. Feed Assmt.
Behaviors Idea Sheets
Communication Idea Sheets
Initiation Idea Sheets
Vis. Adap. Idea Sheets
Resources
Healthy Choices
How Much?
Welcome, Cathy Smyth
Please use the options in the menu to the left to get started!

MRVI INTERVENTION Researchers

Forms

- EIDP
- NCAST
- Family Centered Practices
- Coaching Practices
- EDPA
- EDPA Short
- Mealtime Comm. Measure
- Int. Imp. Fid. Chklst
- PCES

Welcome, Cathy Smyth

Please use the options in the menu to the left to get started!

MRVI Intervention Coaching

MRVI - COACH

MRVI Intervention Participant Cou...

MRVI 101

MRVI Intervention Training Course

MRVI TRAINING

Project Narrative - Curriculum Vitea

Title : Curriculum Vitea

Attachment:

File :

1. Ferrell_IES_2017.pdf
2. CV_Erskine_MRVI_2017.pdf
3. Grant_CV_Smyth_2017.pdf
4. Grant_CV_Zaghlawan_2017.pdf
5. Grant_CV_Clark_2017.pdf
6. Clark_Current_Support.pdf
7. Erskine_Current_support.pdf
8. Ferrell_CurrentPending.pdf
9. Smyth_Current_support.pdf
10. Zaghlawan_Current_support.pdf
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BIOGRAPHICAL SKETCH

Kay Alicyn Ferrell

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
George Washington University, Washington, D.C.	B.A.	1970	Russian Language & Literature
Teachers College, Columbia University, New York, NY	M.A.	1975	Special Education: Blind & Visually Impaired
University of Pittsburgh, Pittsburgh, PA	Ph.D.	1983	Special Education

Positions.

Year(s)	*Position*	*Institution/Organization*	*Responsibilities*
1982-current	Principal Investigator or Research Director	US Department of Education and US Department of Health & Human Services, Various Agencies	31 **federally** funded research and development projects: *International Research and Exchange Board, US Department of State* *Institute for Education Sciences*, NCSER *Office of Elementary & Secondary Education*: Enhanced Assessment Grants *Office of Post-Secondary Education*: Fund for the Improvement of Post-Secondary Education *Office of Special Education and Rehabilitative Services*: Field-initiated research, OSEP Leadership preparation, OSEP Personnel preparation, OSEP Student-initiated research, OSEP Rehabilitation Services Administration National Institution on Disability and Rehabilitation Research *Agency for Healthcare Research and Quality (HHS)*: Rural Health Initiative

Year(s)	*Position*	*Institution/Organization*	*Responsibilities*
1982-86	National Consultant in Early Childhood	American Foundation for the Blind, New York, NY	Consultation, training, development of training materials, evaluation of agencies and programs for national advocacy agency
1984-current	Principal Investigator	New York State Office of Education, Colorado Department of Education, and other state and private funding agencies	13 **state and private** research, training, and development funded proposals
1986-92	Assistant to Associate (1990) Professor	Teachers College, Columbia University, New York, NY	Teaching; research; service within the Department of Special Education coordination of Program for Educators of Blind & Visually Impaired Learners; coordination of Early Childhood Special Education Program.
1988-90	Coordinator, New York State Doctoral Evaluation Project	Teachers College, Columbia University, New York, NY	Evaluation of doctoral programs in education and psychology for New York Department of Education
1992-present	Associate to Full (1994) Professor; Tenured (1994)	University of Northern Colorado, Greeley, CO	Teaching, research, service within the School of Special Education; coordination of Severe Needs: Vision and Early Childhood Special Education programs
1998-00	Director, Division of Special Education	University of Northern Colorado, Greeley, CO	Administration of 21-faculty, > 350-student, academic unit
2000-02	Assistant Dean, College of Education	University of Northern Colorado, Greeley, CO	Internal administration, budget, technology
2001-12	Executive Director	National Center on Severe & Sensory Disabilities, University of Northern Colorado, Greeley, CO	Management of center program, budget, program evaluation
2005-14	Trustee (Vice President, 2010-2012)	Colorado School for the Deaf and the Blind, Colorado Springs, CO	Appointed by 3 Colorado Governors to governing board
2006	Technical Advisory Group	Westat	Evaluation of OSEP Personnel Preparation Program
2006-08	Project Evaluator	National Science Foundation	Evaluation for grant awarded to WGBH National Center on Accessible Media

Year(s)	*Position*	*Institution/Organization*	*Responsibilities*
2006-08	Associate Director, Policy Research	American Foundation for the Blind, Washington, DC	Research and policy analysis
2006-10	Project Evaluator	Missouri State University	Evaluation of federally-funded personnel preparation program
2011	Executive in Residence	American Printing House for the Blind, Louisville, KY	Development and adaptation of the Boehm-3 *Preschool* and consultation to other products.
2012-current	Regional Chair	International Council on Education of Persons with Visual Impairments	Coordinates activities for the North America-Caribbean region; represent ICEVI at the United Nations
2014-current	Project Evaluator	Illinois State University, Normal, IL	Evaluation of federally-funded personnel preparation grant
2014-current	Project Evaluator	University of Northern Colorado, Greeley, CO	Evaluation of federally-funded personnel preparation grant
2016-19	Research Professor	University of Northern Colorado, Greeley, CO	Principal Investigator for federally-funded research grant

Honors and Awards (since 2012)

2012, Josephine L. Taylor Award, Division 17 (Personnel Preparation) of the Association for Education & Rehabilitation of the Blind & Visually Impaired

2012, Mary Kay Bauman Award, Association for Education & Rehabilitation of the Blind & Visually Impaired

2012, Josephine L. Taylor Personnel Preparation Award, Association for Education & Rehabilitation of the Blind & Visually Impaired Division 17

2013, Migel Medal, American Foundation for the Blind

2014, M. Lucile Harrison Award, University of Northern Colorado

2014, Warren G. Bledsoe Award, Association for Education & Rehabilitation of the Blind & Visually Impaired

2015, School of Education Departmental Alumni Award from the Department of Instruction & Learning, University of Pittsburgh

2015, Alan J. Koenig Research Award in Literacy, Getting in Touch with Literacy Conference, Albuquerque, NM

2016, Virgil Zickel Award [for the tactile edition of the *Boehm Test of Basic Concepts* – Preschool] from the American Printing House for the Blind (with Ann Boehm), Louisville, KY

Selected peer-reviewed publications (since 2012):

Ferrell, K. A. (2013). Appendix A: Best practices in educating students with low vision. In M. Smith, *Barraga visual efficiency program*. Louisville, KY: American Printing House for the Blind.

Ferrell, K. A. (2014, July). Expectations and realities. *The Educator*, *28*(1), 29-30.

Ferrell, K. A. (2014, July). Expectations and realities. *The Educator*, *28*(1), 29-30.

Ferrell, K. A., Smyth, C. A., Henderson, B., & Boehm, A. E. (2014). *Boehm-3 Preschool, Boehm Test of Basic Concepts* (3d ed.) [Tactile Edition]. Louisville, KY: American Printing House for the Blind.

Ferrell, K. A, Bruce, S., & Luckner, J. L. (2014). *Evidence-based practices for students with sensory impairments* (Document No. IC-4). Retrieved from University of Florida, Collaboration for Effective Educator, Development, Accountability, and Reform Center website: http://ceedar.education.ufl.edu/tools/innovation-configurations/

Ferrell, K. A. (2015). Guest editorial. [Special issue on Critical Issues.] *Journal of Visual Impairment & Blindness, 109*, 427-431.

Ferrell, K. A. (2015). Guest editorial. *The Educator, a publication of the International Council for Education of Persons with Disabilities, 28(2), 3.*

Ferrell, K. A., Smyth, C. A., Zierer, C., Zierer, L., & Boehm, A. E. (Field test version, 2015). *Boehm Test of Basic Concepts* (3d ed.) (Tactile adaptation, K-2). Louisville, KY: American Printing House for the Blind.

Cooney, J. B., Young, J., **Ferrell**, K. A., & Luckner, J. L. (2015). Learning what works in sensory disabilities: Establishing causal inference. *Journal of Visual Impairment & Blindness, 109*, 469-486.

Luckner, J. L., Bruce, S., & **Ferrell**, K. A. (2015). A summary of the communication and literacy evidence-based practices for students who are deaf or hard of hearing, visually impaired, and deafblind. *Communication Disabilities Quarterly*. Prepublished September 9, 2015, DOI: 10.1177/1525740115597507

Ferrell, K. A., & Smyth C. A. (2017). Growth and development of young children. In M. C. Holbrook, C. Kamei-Hannen, & T. McCarthy (Eds.), *Foundations of Education for Blind & Visually Impaired Children and Youth* (pp. 114-145). New York: AFB Press.

Ferrell, K. A., Correa-Torres, S., Howell, J. J., . . . Dewald, A. (In press). Audible image description as an accommodation in statewide assessments for students with visual and print disabilities. *Journal of Visual Impairment & Blindness*.

Bruce, S., Luckner, J. L., & **Ferrell**, K. A. (In press). Assessment of students with sensory disabilities: Evidence-based practices. *Assessment for Effective Intervention*.

Ferrell, K. A., Smyth, C. A., Zierer, C., Zierer, L., & Boehm, A. E. (In press). *Boehm Test of Basic Concepts* (3d ed.) (Tactile adaptation, K-2). Louisville, KY: American Printing House for the Blind.

Jamie Erskine, PhD, RD

Position: Director, School of Human Sciences
Professor, Nutrition and Dietetics
School of Human Sciences/ College of Natural & Health Sciences
University of Northern Colorado
Greeley, CO 80639

Telephone

- **Office:** (970)351-1706

E-mail Jamie.erskine@unco.edu

Education:

2012-2013
Medical Nutrition Fellowship
St. Luke's/Roosevelt Hospital Center, New York, NY

1992
PhD Human Nutrition
Colorado State University, Fort Collins, CO
Dissertation: Tissue specific effects of dietary composition on lipoprotein lipase

1979
Fellowship, Infant and Child Nutrition
University of Washington, Child Development and Mental Retardation Center, Seattle, WA

1979
MS Foods and Nutrition
Oregon State University, Corvallis, OR
Thesis: Growth and intake of children with developmental delays.

1976
BA Home Economics, Dietetics Emphasis
San Diego State University, San Diego, CA

Work Experience:

Professional Academic:

2014 - present
Director, School of Human Sciences
Professor, Nutrition and Dietetics
University of Northern Colorado, Greeley, CO

2009 – 2010
The Children's Hospital, Aurora, CO
Clinical Dietitian (All services, part-time)

1999 - 2006
University of Northern Colorado, Greeley, CO
Associate Professor, Dept. of Community Health & Nutrition/ Dietetics Program

1995 - 1999
University of Northern Colorado, Greeley, CO
Assistant Professor, Dept. of Community Health & Nutrition

1992 – 1995
University of Colorado Health Sciences Center, Denver, CO
The Children's Hospital, Denver, CO
Research Dietitian, Pediatric General Clinical Research Center

Research Areas/ Interests:

Program accreditation; Energy balance, pediatric nutrition including special needs, cystic fibrosis, education of allied health professionals, nutrition screening

Publications:

Juried:
Francis C, Ploucher A, Clark A, Cline A, **Erskine J**. Reliability and validity of a didactic program assessment exam, J of Acad of Nutr and Dietetics (submitted)

Erskine J, Lanigan A, Emsermann CB, Manning B, Staton EW, Pace WD. Use of the Americans in Motion-Healthy Intervention (AIM-HI) to create a culture of fitness in family practice, JABFM 25(5):694-700, 2012.

Erksine, J.M., We need to use gastrostomy tubes to improve outcomes in patients with CF, Ped. Pulmonology, 2007, Supp. 30: 117 – 118.

Erskine, J.M., Lingard, C., Sontag, M., Update on enteral nutrition support for cystic fibrosis, Nutrition in Clinical Practice, 2007, 22(2):223-232,.

Erskine, J.M., Perrett, J., Prevalence of nutrition screening in ambulatory cancer patients and its relationship to nutrition intervention: A pilot study, Oncology Nutrition Connection, Fall 2006.

Davies,P.S.W., **Erskine, J.M.**, K.M. Hambidge, F.J. Accurso, Longitudinal investigation of energy expenditure in infants with cystic fibrosis, European J. Clin. Nutr. 2002, 56:1-7,

Erskine, J.M., P.S.W. Davies, J.M. Hambidge, F.J. Accurso, Longitudinal investigation of energy expenditure in infants with cystic fibrosis (abstract), 35th Annual Meeting of the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition, 2002.

Erskine, J.M., Lingard, C.D., Sontag, M.K., Accurso, F.J., Enteral

nutrition for patients with cystic fibrosis: Comparison of a semi-elemental and nonelemental formula, J. Peds, Feb. 1998, 132:265-9.

Wagener, J., **Erskine, J.**, Krebs, N., et al, Airway inflammation and nutrition in young children with cystic fibrosis, Pediatric Pulmonology (abstract), 1996, Supp 13: 161-2.

Erskine, J.M., Lingard, C., Accurso, F.J., Krebs, N.F., Enteral nutrition for patients with cystic fibrosis: Comparison of a semi-elemental and non-elemental formula (abstract), Pediatric Pulmonology, 1995, Supp 12: 262,.

Easley, D.J., Krebs, N., Miller, L., **Erskine, J.**, Accurso, F., Hambidge, K.M., Effect of pancreatic enzymes on zinc absorption in cystic fibrosis (abstract), AFCR Regional Meeting, 1995.

Erskine, J.M., Accurso, F.J., Davies, P.S.W., Longitudinal measurement of energy expenditure in infants with cystic fibrosis identified by newborn screen (abstract), Pediatric Pulmonology, 1995, Supp 12: 262,.

Erskine, J.M., Jensen, D.R., Eckel, R.H., Macronutrient regulation of lipoprotein lipase is posttranslational, J. Nutr., 1994, 124:500-507,.

Erskine, J.M., Hill, J.O., Accurso, F.J., Energy expenditure and body composition of infants with cystic fibrosis (abstract),General Clinical Research Center Dietitian's Annual Meeting, Washington, D.C., 1993.

Yost, T.J., **Erskine, J.M.**, Gregg, T.S., Brass, E.P., Eckel, R.H., Dietary substitution of medium-chain triglycerides in subjects with noninsulin-dependent diabetes mellitus in an ambulatory setting: impact on glycemic control and insulin-mediated glucose metabolism, J. Am. Coll. Nutr. 13 (6):615-622,1994.

Sokol, R.J., **Erskine, J.**, Abman, S., Wagener, J., Hammond, K., Accurso, F., Prospective study of fat-soluble vitamin status in 101 infants with cystic fibrosis identified by newborn screening (abstract), Pediatric Pulmonology, Supp. 9:278, 1993.

Thompson, C., **Hughes, J.M.**, Using evaluation strategies within a hospital-based dietetic education program: A case study, J. Am. Diet. Assoc. 89(5):677, 1989.

Professional Presentations:

Juried:

2015 Bright K, Stoody, T, Gilbert E, Erskine J, et al., Development of an Interprofessional Patient Simulation Academy: Challenges and Opportunities, Association for Standardized Pateient Education Annual Conference, Denver, CO.

2015 Francis C, Clark A, Erskine J. Academic Integrity During Online Exams for Distance Learning, Food & Nutrition Conference and Exposition, Nashville, TN

2012 Francis C, Clark A, Erskine J. Is online learning comparable to classroom instruction in dietetics education?
Food & Nutrition Conference and Exhibition, Philadelphia, PA

Non Juried:
2016 Francis C, Clark A, Erskine E. Academic Integrity and Distance Learning: What Can Educators
Do?, UNC Assessment Fair

2014 Translating Literature into Practice: Beyond the Guidelines
Denver Dietetic Association

2013 Vitamin D in Chronic Kidney Disease: More than a bone metabolite Northern Colorado Dietetic Association

Funded Projects:

2016-19, An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model, Grant R324A160139, U.S. Dept. of Educ., National Center for Special Education Research, $1.2M

2014- 16 Bright K. et al. Provost Innovation Grant: Interdisciplinary patient simulation academy, $49,232, UNC I@UNC

2004, Maple Tree: Curriculum for Cancer Treatment; $1500, NIH

Professional Service:

2011-present
Reviewer, Journal of the Academy of Nutrition and Dietetics

2010-present
Reviewer, Journal of Parenteral and Enteral Nutrition

2013-present
Reviewer, Journal of Nutrition Education and Behavior

2015
Evidence Analysis Library, Academy of Nutrition and Dietetics
Future of Profession of Dietetics

2013
Evidence Analysis Library, Academy of Nutrition and Dietetics
Lead Analyst for Fruit Juice Project

2012
Nutrition Fellow, St. Luke's/Roosevelt Hospitals, New York, NY

BIOGRAPHICAL SKETCH

Catherine A Smyth

EDUCATION/TRAINING			
Institution and Location	*Degree*	*Year(s)*	*Field Of Study*
Illinois State University, Normal, IL	B.S.	1986	Special Education: Blind and Visually Impaired, *Magna Cum Laude*
Nazareth College Rochester, NY	M.S.	1994	Early Childhood Education
University of Colorado Health Sciences Center Denver, CO		2002	Supporting the Fragile Infant in Daily Care Routines
JFK Partners, University of Colorado, Denver, CO		2005	Transdisciplinary Early Intervention Supports and Services Primary Provider Model Services Training
Vision In Service In America, (VIISA), St. Augustine, FL		2008	Teacher Training In Early Intervention Services for Infants and Toddlers with Visual Impairment
Mealtime Notions, LLC Tucson, AZ		2009	The Get Permission Approach to Sensory Mealtime Challenges
Comprehensive Training Opportunities for Paraeducators for Early Intervention Services (CO-TOP*EIS) University of Colorado, Denver, CO		2010	Developmental Intervention Supervisor Academy (DISA) Developmental Intervention Trainer Academy (DITA)
Keys to Supporting Positive Parent-Child Relationships: Beginning Rhythms and Keys to Caregiving		2014	NCAST training: Early Intervention
Nurse Child Assessment Satellite Training (NCAST) Child/Interaction: Feeding Scale		2016	Assessment/Research Reliability Training
Canvas Instruction Design Boot Camp University of Northern Colorado		2016	Online Course Design Training Using Canvas
University of Northern Colorado Greeley, CO	Ph.D.	Expected 2017	Special Education; minor in Statistics

BIOGRAPHICAL SKETCH

Catherine A Smyth

Employment Positions:

1988-2000	Teacher for Students with Visual Impairments, Birth-21 Early Childhood Specialist	Monroe BOCES I Fairport, NY	Itinerant TVI in Center-based programs, Public and Private School inclusive programs, Home and Hospital Visits. Assessment team member for Vision Department, Early Intervention and Early Childhood Specialist, and Lead for Staff Development Committee
2000-2013	Teacher for Students with Visual Impairments, Birth-6 Early Childhood Home Visit Program Director (2012-2013)	Anchor Center for Blind Children Denver, CO	Supervision of staff Home Visit providers. TVI/Early Childhood teaching in Center-based Preschool, Lead teacher for the Infant and Toddler Parent programs, Early Intervention Home and Hospital visitations, provides all necessary visual and educational assessments for students in program
July 2012 -Present	Research Consultant	SRI International Menlo Park, CA	Research Analyst and Video Coder for IES Grant: *Examining the Reliability and Validity of the Child Outcomes Summary Form* (R324A090171), Professional Development Team
2008-2011	Research Investigator	Anchor Center for Blind Children Denver, CO The Gerber Foundation Fremont, MI	Co-developed and implemented a privately funded three year exploratory case study with an SLP and OT investigating the effect of visual impairment on feeding development
2014-2016	Instructional Design Coordinator	Colorado Department of Human Services, Office of Early Childhood, Race to the Top Team and Quality Child Care Initiatives Denver, CO	Coordinate and create professional development online leaning for Colorado Shines Quality Rating and Improvement System
2016-Present	MRVI Intervention Project Coordinator	University of Northern Colorado Greeley, CO	Research and Intervention Team participation including professional development, individualized coaching, assessment scoring and inter-observer agreement, data collection maintenance, and administrative duties. *An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model*. Institute of Education Sciences, National Center for Special Education Research (R324A160139)

BIOGRAPHICAL SKETCH

Catherine A Smyth

Juried and Invited Presentations:

Phangia Dewald, H. & **Smyth, C**. (2016, August). *Baby steps: Using tele-intervention with families of young children with visual impairment.* International Council for Education of people with Visual Impairments Conference, Orlando, FL.

Smyth, C. & Morgese, Z. L. (2016, August). *Eating upside down: Research and strategies for the development of independent mealtime skills in very young children with visual impairment.* International Council for Education of people with Visual Impairments Conference, Orlando, FL.

Snyder, D. & **Smyth, C.** (2016, August). *Practical intentions or intentional practices: Using a routine-based approach as effective support for young children with blindness and visual impairments.* International Council for Education of people with Visual Impairments Conference, Orlando, FL.

Barton, L., Younggren, N., Jackson, B., Swett, J. & **Smyth, C**. (2016. August). *Improving quality team practices and child outcomes summary (COS) data quality with the COS-TC toolkit.* Improving Data, Improving Outcomes Conference, New Orleans, LA.

Nicholas, A., Casey, M., Guillen, C., Gillespy, K., Ried, K. & **Smyth, C**. (2016, August) *Building COS team capacity to produce high-quality data through meaningful professional learning activities.* Improving Data, Improving Outcomes Conference, New Orleans, LA.

Boehm, A. E., Ferrell, K. A., & **Smyth, C.** (2016, June). *Knowing what they know: Improving tactual measurement for preschoolers with visual impairment.* International Society on Early Intervention Conference, Stockholm, Sweden.

Ferrell, K. A., & **Smyth, C.** (2015, November) *Measuring concept development in young tactile learners: Adaptation of the Boehm-3 Preschool and K-2 version.* Getting in Touch with Literacy Conference, Albuquerque, NM.

Barton, L., **Smyth, C.,** Taylor, C., Hebbeler, K., & Spiker, D. (2015, November) *Evaluating the validity of a team decision-making process for accountability: a mixed methods approach.* American Evaluation Association Conference, Chicago, IL.

[Invited] **Smyth, C.,** Spicer, C., & Morgese, Z. (2014, June). *Cortical Visual Impairment and the Development of Independent Mealtime Skills.* American Conference on Pediatric Cortical Visual Impairment, Omaha, NE.

[Invited] Spicer, C**.,** Morgese, Z, & **Smyth, C**. (2014, January). *The effects of visual impairment on feeding development in young children,* Kansas State School for the Blind.

[Invited] Morgese, Z., Spicer, C**.,** & **Smyth, C.** (2012, September) *The effects of visual impairment on feeding development in young children,* The Foundation for Blind Children, Phoenix, AZ.

Smyth, C., Morgese, Z., & Spicer, C. (2012, February). *The effects of visual impairment on feeding development in young children,* Poster Session, Conference on Research Innovations in Early Intervention (CRIEI), San Diego, CA.

BIOGRAPHICAL SKETCH

Catherine A Smyth

[Invited] Spicer, C., Morgese, Z., & **Smyth, C**. (2011, July). *The effects of visual impairment on feeding development in young children,* Children's Hospital Colorado, Denver, CO.

Morgese, Z., Spicer, C**.,** & **Smyth, C**. (2011, April). *The effects of visual impairment on feeding development in young children*, Poster Session, Council for Exceptional Children Conference, National Harbor, MD.

Smyth, C., Morgese, Z., & Spicer, C**.** (2010, December). *Eating upside down: Feeding visually impaired infants,* Poster Session, Zero to Three, National Training Institute, Phoenix, AZ.

[Invited-Keynote Speaker] **Smyth, C.,** Morgese, Z., & Spicer, C**.** (2009, April). *Eating upsidedown: Feeding visually impaired infants,* Hand in Hand: Learning Together, Statewide Sensory Conference, Salt Lake City, UT.

[Invited] **Smyth, C**., Morgese, Z., & Spicer, C. (2008, August). *Eating upside down: Feeding visually impaired infants,* Western Regional Early Intervention Conference, Colorado Springs, CO.

Publications:

Ferrell, K. A., & **Smyth, C. A.** (2017). Growth and development of young children. In Holbrook, M.C. (Ed.) *Foundations of education: Vol. 1.History and theory of teaching children and youths with visual impairments*. New York, NY: AFB Press.

Younggren, N., Barton, L., Jackson, B., Swett, J. & **Smyth, C.** (2016). *Child Outcomes Summary-Team Collaboration (COS-TC) Checklist and Descriptions*. Menlo Park, CA: SRI International.

Younggren, N., Barton, L., Jackson, B., Swett, J. & **Smyth, C.** (2016). *COS-TC Checklist and Descriptions Facilitator's Guide*. Menlo Park, CA: SRI International.

Phangia Dewald, H., & **Smyth, C. A.** (2013-2014). Feasibility of orientation and mobility services for young children with vision impairment using teleintervention. *International Journal of Orientation and Mobility, 6, 83-92.*

Smyth, C., Spicer, C. L., & Morgese, Z. L. (2014). Family voices at mealtime: Experiences with young children with visual impairment. *Topics in Early Childhood Special Education, 34,* 175-185. doi: 10.1177/0271121414536622

Ferrell, K. A., **Smyth, C. A.,** Henderson, B., & Boehm, A. (2014). *Boehm test of basic concepts-3 Preschool* [Tactile ed.]. Louisville, KY: American Printing House for the Blind.

Smyth, C., Botsford, K., & Wilton, A. (2011). We're better together: Research collaborations between home, school and community. *Division of Visual Impairment Quarterly (57)*1, 8-9.

UNC FACULTY VITA

January 7, 2017

NAME	Hasan Y. Zaghlawan
POSITION	Assistant Professor (tenure-track) School of Special Education College of Education and Behavioral Sciences University of Northern Colorado
TELEPHONE	(970) 351-1648
E-MAIL	hasan.zaghlawan@unco.edu

EDUCATION

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
University of Illinois, Urbana-Champaign, IL	Ph.D.	2011	Special Education
University of Jordan, Amman, Jordan	M.A.	2001	Special Education
University of Jordan, Amman, Jordan	B.A.	1998	Special Education

CERTIFICATIONS

2014-present	Nationally Certified Interviewer/Trainer for the Routines-Based Interview	Siskin Children's Institute Chattanooga, Tennessee
2015	Routine-based Home Visit Training Institute Model	Siskin Children's Institute Chattanooga, Tennessee
2015-present	Routines-Based Early Intervention & Engagement Classroom Model: Expert and Trainer	The Routines-based Approach by McWilliam (RAM) International Group

WORK EXPERIENCE

Year(s)	Position	Institution/Organization	Responsibilities
2013-present	Assistant Professor	University of Northern Colorado, Greeley, CO	Teaching, research, service. Program coordinator of the BA ECSE Program.
2014-2015	Assistant Professor	University of Northern Colorado, Greeley, CO	Acting coordinator of the MA ECSE Program
2011-2013	Assistant Professor	University of St. Thomas, Minneapolis, MN	Teaching, research, service. Program coordinator of the MA ECSE Program

AREA OF SPECIALIZATION

Early Childhood Special Education (ECSE)

RESEARCH AREA/INTEREST

Promoting early social and communication skills for young children with autism
Supporting children's social and emotional development

Preventing and managing challenging behavior during child and teacher-directed activities
Improving children's engagement in naturalistic environments
Personnel preparation in early childhood special education

PUBLICATIONS (Juried)

Ritchotte, J. A., & Zaghlawan, H. Y. (in press). Paving the path to engagement for high potential children. *Parenting for High Potential*.

Ostrosky, M. M., Santos, R. M., & Zaghlawan, H. Y. (2016). Early intervention and early childhood education. In K. A. Shogran & M. L. Wehmeyer (Eds.), *Research-based practices for educating students with intellectual disability*. New York: Routledge.

Zaghlawan, H. Y., & Ostrosky, M. M. (2015). A parent-implemented intervention to improve imitation skills by young children with autism: A pilot study. *Early Childhood Education Journal, 44,* 671-680. doi: 10.1007/s10643-015-0753-y

Meadan, H., Ostrosky, M. M., Zaghlawan, H. Y., & Yu, S. (2012). Using coaching with preschool teachers to support the social skills of children with and without Autism Spectrum Disorders. *International Journal of Early Childhood Special Education, 4*(2), 74-94.

Ostrosky, M. M., Mouzourou, C., Danner, N., & Zaghlawan, H. Y. (2012). Improving teacher practices using microteaching: Planful video recording and constructive feedback. *Young Exceptional Children, 16,* 16-29. doi: 10.1177/1096250612459186

Zaghlawan, H. Y., & Ostrosky, M. M. (2010). Circle time: An exploratory study in Head Start classrooms. *Early Childhood Education Journal, 38*, 439-448.

PROFESSIONAL PRESENTATIONS & WORKSHOPS (Juried)

Banerjee, R., Zaghlawan, H. Y., & Catalino, T. (2017, submitted). *Implementing recommended practices in home settings: Suggestions and interventions.* Presentation at the Annual International Conference on Young Children with Special Needs & Their Families. Portland, OR.

Quesenberry, A., Zaghlawan, H. Y., Benekee, S., Doubet, S., Shaffer, L. (2017, Submitted). *We are better together: Embedding blending practices in higher education curriculum*. Presentation at the Annual International Conference on Young Children with Special Needs & Their Families. Portland, OR.

Smyth, C., Dewald, H. P., & Zaghlawan, H. Y. (2017, Submitted). *MRVI Intervention project: Using family-centered practices in mealtime routines*. Presentation at the Annual International Conference on Young Children with Special Needs & Their Families. Portland, OR.

Zaghlawan, H. Y., & Ritchotte, J. A. (2017, Submitted). *Parent-implemented intervention to improve the spoken language complexity for young 2E children*. Presentation at the Annual International Conference on Young Children with Special Needs & Their Families. Portland, OR.

Banerjee, R., Zaghlawan, H. Y., Davis, J. (2017). *Sara is struggling, what do I do next? Navigating the referral process*. Presentation at the Rocky Mountain Early Childhood Conference. Denver, CO.

Zaghlawan, H. Y., & Banerjee, R. (2017). *Engaging ALL children in your classroom: Tips and Strategies*. Presentation at the Rocky Mountain Early Childhood Conference. Denver, CO.

Ritchotte, J. A., & Zaghlawan, H. Y. (2017, Submitted). *Supportive Reading Practices for Young, 2E Children: A Single-Subject Study*. Presentation at the National Association for Gifted Children 63rd Annual Convention. Charlotte, NC.

Ritchotte, J. A., & Zaghlawan, H. Y. (2016). *Paving the path to engagement for young gifted children*. Presentation at the National Association for Gifted Children 63rd Annual Convention. Orlando, FL.

Zaghlawan, H. Y., & Ritchotte, J. A. (2016). *Supportive reading practices for young, 2E children*. Presentation at the Colorado Association for Gifted and Talented 39th Annual Conference. Loveland, CO.

Zaghlawan, H. Y., & Ritchotte, J. A. (2016). *Paving the path to engagement for young, high potential children*. Presentation at the Colorado Association for Gifted and Talented 39th Annual Conference. Loveland, CO.

Shaffer, L., Zaghlawan, H. Y., & Cheatham, G. A., & Sobh-Ahmad, Z. (2016). *Challenging behavior support: A needs assessment of Arab-American families and their children*. Presentation at the Conference on Research Innovations in Early Intervention. San Diego, CA.

Zaghlawan, H. Y., & Banerjee, R. (2016). *Engaging ALL children in your classroom: Tips and Strategies*. Presentation at the Rocky Mountain Early Childhood Conference. Denver, CO.

Banerjee, R., Zaghlawan, H. Y., & Catalino, T. (2016). *Implementing recommended practices in home settings: Suggestions and interventions.* Presentation at the International Society on Early Intervention Conference. Stockholm, Sweden.

Zaghlawan, H. Y., & Banerjee, R. (2016). *Supporting young children with challenging behaviors from diverse backgrounds*. Presentation at the Courage to Risk Conference. Colorado Springs, CO.

Meyer, L. E., Zaghlawan, H. Y., Hurley, J. J., & Banerjee, R. (2015). *Hitting the streets:*

Embedding the new DEC RPs in personnel preparation. Presentation at the Annual International Conference on Young Children with Special Needs & Their Families. Atlanta, GA.

Stansberry, L. & Zaghlawan, H. Y. (2015). *It's not eye contact that is important – it's the joint attention skills*. Presentation at the 46th Annual Autism Society National Conference. Denver, CO.

Steed, E. A., & Zaghlawan, H. Y. (2015). *Can't we just all get along? Practical strategies to reduce conflict and support social emotional skills in preschool classrooms*. Presentation at the Rocky Mountain Early Childhood Conference. Denver, CO.

Thomason, L. S., & Zaghlawan, H. Y. (2015). *Making Daily Routines Fun: Embedded Strategies*. Presentation at the Rocky Mountain Early Childhood Conference. Denver, CO.

Zaghlawan, H. Y., Banerjee, R., Meyer, L. E., Hurley, J. J., & McLaren, E. M. (2015). *Pre-service ECSE teacher preparation program models: lessons to learn*. Presentation at the Annual International Conference on Young Children with Special Needs & Their Families. Atlanta, GA.

Zaghlawan, H. Y., & Shaffer, L., & Fettig, A. (October, 2014). *Getting (and keeping) your dream job in higher education*. Presentation at the Annual International Conference on Young Children with Special Needs & Their Families. St Louis, MO.

Zaghlawan, H. Y., Beneke, S., & Shaffer, L. (October, 2013). *Getting (and keeping) your dream job in higher education*. Presentation at the Annual International Conference on Young Children with Special Needs & Their Families. San Francisco, CA.

Alena M. Clark, PhD, MPH, RD, CLC

Position: Associate Professor/Program Coordinator
Nutrition & Dietetics Program
School of Human Sciences
University of Northern Colorado
Greeley, CO 80639

Home Address: 410 South Grant Avenue
Fort Collins, CO 80521

Telephone: **Office:** 970-351-2879
Cell: 970-420-0860

Education:

2006
Ph.D.
Colorado State University; Fort Collins, CO
Human Nutrition

1999
M.P.H.
University of Minnesota; Minneapolis, MN
Public Health Nutrition

1996
B.A.
Concordia College; Moorhead, MN
Food/Nutrition and Dietetics

Professional Academic:

2014-Present
University of Northern Colorado; Greeley, CO
Program Coordinator
Program Coordination

2013-Present
University of Northern Colorado; Greeley, CO
Associate Professor
Teaching & Research

2007-2013
University of Northern Colorado; Greeley, CO
Assistant Professor
Teaching & Research

Area of Specialization: My area of specialization is in maternal and infant nutrition. I have been a Registered Dietitian since 1998 and a Certified Lactation Counselor since 2000.

Publications:

Juried Peer-Reviewed Articles

Clark, A., Baker, S., McGirr, K., Harris, M. *"Breastfeeding Peer Support Program Increases Breastfeeding Initiation and Duration Rates Among Middle- to High-Income Women".* Breastfeeding Medicine, In Review.

Clark, A., Lucero-Nguyen, Y. "*Creating and Evaluating a Supportive Breastfeeding Environment on a College Campus".* International Breastfeeding Journal, In Review.

Harris, M., Baker, S., Davalos, D., Clark, A., McGirr, K. *"Intake of Total Omega-3 Docosahexaenoic Acid is Associated with Increased Gestational Length and Improved Cognitive Performance at 1 Year of Age".* Journal of Nutrition Health and Food Engineering, Accepted.

Bezyak, J., **Clark, A.** *Physical and Mental Health Behaviors among Individuals with Severe Mental Illness: A Comprehensive Needs Assessment".* Journal of Applied Rehabilitation Counseling, 2016, 47: 15-21.

Bezyak, J., **Clark, A.** *Promoting physical and mental health among college students: A needs assessment.* Rehabilitation, Research, Policy and Education, 2016, 30:188-192.

Lessen, R., Kavanagh, K. **(Clark, A., Content Advisor)**. *Position of the Academy of Nutrition and Dietetics: Promoting and Supporting Breastfeeding* and *Promoting and Supporting Breastfeeding.* Journal of the Academy of Nutrition and Dietetics, March 2015.

Clark, A., Bezyak, J., Testerman, N. *Individuals with severe mental illness have improved eating behaviors and cooking skills after attending a six-week nutrition education program.* Psychiatric Rehabilitation, 2015, 1: 1-3.

Sand, K, [Undergraduate Student], **Clark, A**. *"Knowledge, Attitudes and Behaviors Among College Aged Females Regarding Nutrition Before and During Pregnancy",* Undergraduate Research Journal at the University of Northern Colorado, April 2014, 3(3).

Cline, A., **Clark, A.** *Students in dietetics and nutrition program prefer active learning modes to other methods.* International Journal of Nutrition & Dietetics, 2013, 1(1): 41-54.

Stewart, M. [Undergraduate Student], **Clark, A.** *Determining the most effective way to engage undergraduate dietetics students in research – Classroom requirement or volunteer opportunity.* The Academy of Nutrition and Dietetics Research Dietetics Practice Group Journal, Summer 2012, 4(7).

Ehrlich, M. [Undergraduate Student], **Clark, A.** *Evaluating healthy meal choices on children's menus in sit-down restaurants.* Undergraduate Research Journal at the University of Northern Colorado, April 2012, 1(2).

Juried Fact Sheets

Bellows, L., Moore, R., Hunley, J., Reeder, A., **Clark. A.** *Benefits of Breastfeeding*. Colorado State University Extension, October 2013.

Bellows, L., **Clark, A.,** Moore, R., *Introducing Solid Foods*. Colorado State University Extension, October 2013.

Professional Presentations:

Juried Professional Oral Presentations

Clark, A., Bezyak, J. *"Improving Nutrition and Physical Activity among Individuals with Severe Mental Illness: A Comprehensive Needs Assessment"*, oral presentation at the September 2013 Colorado Public Health Association meeting in Breckenridge, CO.

Invited Speaker Professional Presentations

Clark, A. *"Chop Fine: Providing Nutrition Training to Educators in Cameroon, Africa",* oral presentation at the October 2015 SHS Faculty Forum and the November 2015 Northern Colorado Dietetic Association Meeting.

Clark, A. "*Environmental and Policy Approaches to Breastfeeding Promotion and Support: From Ideas to Reality"*, oral presentation at the August 2015 National Maternal Nutrition Intensive Course.

Clark, A. *"Accommodating Nursing Mothers at Work",* oral presentation at the March 2016 and June 2015 Weld County Health Department Employer Training.

Clark, A. *"Healthy Eating for Healthy Families"*, oral presentation at the April 2016 and 2015 Look Both Ways for Reproductive Health conference.

Clark, A. *"Early Childhood Obesity Prevention: Opportunities for Childcare Professionals – Infant Feeding"*, oral presentation at the February 2015 Weld County Health Department Child Care Providers Training.

Clark, A. *"Early Childhood Obesity Prevention: Opportunities for Childcare Professionals – Infant Feeding"*, oral presentation at the August 2014 Weld County Health Department Child Care Providers Training.

Clark, A. *"Accommodating Nursing Mothers at Work",* oral presentation at the February 2014 Weld County Health Department Employer Training.

Clark, A., Prior, S. *"Weight Gain During Pregnancy: Reexamining the Guidelines"*, oral presentation at the February 2011 Northern Colorado Dietetic Association Meeting in Loveland, CO.

Juried Professional Poster Sessions

Clark, A. "*Developing, Maintaining and Marketing a University Breastfeeding Support Program: A Collaborative Approach",* poster session presented at the 2016 Colorado Breastfeeding Conference in Denver, CO.

Clark, A., Bezyak, J. "*Developing an Undergraduate Course to Promote Physical and Mental Health - A College Experience*", poster session presented at the 2016 Academy of Nutrition and Dietetics Food and Nutrition Conference and Expo in Boston, MA.

Munn, K. [Dietetic Intern], **Clark, A**., Gay, A. *"Breastfeeding Practices in Different Cultures and Countries Around the World",* poster session presented at the 2015 Colorado Academy of Nutrition and Dietetics.

Pearse, C, [Undergraduate Student], **Clark, A**. *"InfaNET Website Update: Providing Infant Feeding Education to Child Care Providers",* poster session presented at the 2014 Colorado Academy of Nutrition and Dietetics. ***Won Best Poster of the Year Award***

Sand, K, [Undergraduate Student], **Clark, A**. *"Knowledge, Attitudes and Behaviors Among College Aged Females Regarding Nutrition Before and During Pregnancy",* poster session presented at the 2014 Colorado Academy of Nutrition and Dietetics.

Funded Projects:

Clark, A. 2015-2017. University of Northern Colorado Provost Research Dissemination and Faculty Development Competition. *"Delivering and Evaluating a Nutrition Education Program in Cameroon, Africa".*

Bezyak, J., **Clark, A. [Co-PI]** 2013. University of Northern Colorado's Natural and Health Sciences PI^2C^2. *"Promoting Physical and Mental Health: A College Experience".*

Bezyak, J., **Clark, A. [Co-PI]** 4/12-4/14. University of Northern Colorado's Summer New Project Proposal. *"Improving Nutrition and Physical Activity Among Individuals with Severe Mental Illness"* $2,500

Bezyak, J., **Clark, A. [Co-PI]** Summer 2011. University of Northern Colorado's Summer Support Initiative. *"Improving Nutrition and Physical Activity Among Individuals with Severe Mental Illness"* $2,000.

Clark, A., Givray, D. 1/10-1/12. University of Northern Colorado's Provost Fund for Faculty Scholarship and Professional Development. *"Voice Your Health – Using Photovoice to Enhance Health Interventions for Elementary Students"* $8,330

Current and Pending Support

Key Personnel Name	Role in Current Project	Pending or Current	Funding Agency	Title	Term	FTE Commitment
Alena Clark, Ph.D., MPH, RD, CLC	Co-Investigator	Current	Institute for Education Sciences	[this project] An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model	7/1/2016 to 6/30/2019	.10 FTE AY .10 FTE Summers
	Primary Investigator	Pending	University of Northern Colorado	Determining Factors Which Affect Breastfeeding Rates	6/1/2017 to 8/31/2017	.17 FTE Summer

Current and Pending Support

Key Personnel Name	Role in Current Project	Pending or Current	Funding Agency	Title	Term	Percent of Calendar Year
Jamie Erskine, Ph.D., MPH	Co-PD/PI	Current	Institute for Education Sciences	[this project] An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model	7/1/2016 to 6/30/2019	25%

Current and Pending Support

Key Personnel Name	Role in Current Project	Pending or Current	Funding Agency	Title	Term	Percent of Calendar Year
Kay Alicyn Ferrell, Ph.D.	Principal Investigator	Current	Institute for Education Sciences	[this project] An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model	7/1/2016 to 6/30/2019	40%
	Project Evaluator	Current	US Department of Education, Office of Special Education Programs	Project TREE: Training Rural Special Educators	8/1/2014 to 7/31/2019	8% Years 2-4 15% Year 5
	Project Staff	Current	US Department of Education, Office of Special Education Programs	Preparation of Teachers of Students with Visual Impairment	1/1/2013 to 12/31/17	7.5%

Current and Pending Support

Key Personnel Name	Role in Current Project	Pending or Current	Funding Agency	Title	Term	Percent of Calendar Year
Catherine Smyth, M.Ed.	Project Coordinator	Current	Institute for Education Sciences	[this project] An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model	7/1/2016 – 6/30/2019	100%

Current and Pending Support

Key Personnel Name	Role in Current Project	Pending or Current	Funding Agency	Title	Term	Percent of Calendar Year
Hasan Zaghlawan, Ph.D.	Co-Investigator	Current	Institute for Education Sciences	[this projectl] An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model	7/1/2016 to 6/30/2019	0.2 FTE
	Project Faculty	Current	US Department of Education, Office of Special Education Programs	Project TREE: Training Rural Special Educators	8/1/2014 to 7/31/2019	0.1 FTE

Project Narrative - Fed/Non Fed Budget Form SF 424

Title : Fed/Non Fed Budget Form SF 424

Attachment:

File :

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Project Narrative - Grant Performance Coversheet

Title : Grant Performance Coversheet

Attachment:

File :

1. **Cover_Sheet.pdf**
2. **R324A160139_Executive_Summary.pdf**
3.
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U.S. Department of Education
Grant Performance Report Cover Sheet (ED 524B)

OMB No. 1894-0003
Exp. 06/30/2017

Check only one box per Program Office instructions.

[x] Annual Performance Report [ ] Final Performance Report

General Information

1. PR/Award #: R324A160139 *(Block 5 of the Grant Award Notification - 11 characters.)*

2. Grantee NCES ID#: 127741 *(See instructions. Up to 12 characters.)*

3 Project Title: An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model *(Enter the same title as on the approved application.)*

4. Grantee Name *(Block 1 of the Grant Award Notification.)*: University of Northern Colorado

5. Grantee Address *(See instructions.)*

6. Project Director *(See instructions.)* Name: Kay Ferrell Title: Research Faculty, Special Education

Ph #: (970) 351- 1653 Ext: ( ) Fax #: ( ) -

Email Address: kay.ferrell@unco.edu

Reporting Period Information *(See instructions.)*

7. Reporting Period: From: 07/01/2016 To: 02/28/2017 (mm/dd/yyyy)

Budget Expenditures *(To be completed by your Business Office. See instructions. Also see Section B.)*

8. Budget Expenditures

	Federal Grant Funds	Non-Federal Funds *(Match/Cost Share)*
a. Previous Budget Period	n/a	n/a
b. Current Budget Period	$286,453.00	$0
c. Entire Project Period *(For Final Performance Reports only)*		

Indirect Cost Information *(To be completed by your Business Office. See instructions.)*

9. Indirect Costs

a. Are you claiming indirect costs under this grant? x Yes ___ No

If yes, please indicate which of the following applies to your grant?

b. x The grantee has an Indirect Cost Rate Agreement approved by the Federal Government:
The period covered by the Indirect Cost Rate Agreement is from: 07/01/2016 to: 06/30/2018 (mm/dd/yyyy)
The approving Federal agency is: ___ED x Other *(Please specify)*: Department of Health & Human Services
The Indirect Cost Rate is 37%
The Type of Rate *(For Final Performance Reports Only)* is: ___ Provisional x Final ___ Other *(Please specify):*

c.___ The grantee is not a State, local government, or Indian tribe, and is using the de minimus rate of 10% of modified total direct costs (MTDC) in compliance with 2 CFR 200.414(f).

d.___ The grantee is funded under a Restricted Rate Program and is you using a restricted indirect cost rate that either:
___ Is included in its approved Indirect Cost Rate Agreement; or
___ Complies with 34 CFR 76.564(c)(2).

e.___ The grantee is funded under a Training Rate Program and:
___ Is recovering indirect cost using 8 percent of MTDC in compliance with 34 CFR 75.562(c)(2); or
___ Is recovering indirect costs using its actual negotiated indirect cost rate.

Human Subjects (Annual Institutional Review Board (IRB) Certification) *(See instructions.)*

10. Is the annual certification of Institutional Review Board (IRB) approval attached? ___Yes ___ No x N/A

Performance Measures Status and Certification ***(See instructions.)***

11. Performance Measures Status

a. Are complete data on performance measures for the current budget period included in the Project Status Chart? _x_ Yes ___ No

b. If no, when will the data be available and submitted to the Department? ____/____/_____ (mm/dd/yyyy)

12. By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate and the expenditures, disbursements, and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-33812).
Furthermore, to the best of my knowledge and belief, all data in this performance report are true, complete, and correct and the report fully discloses all known weaknesses concerning the accuracy, reliability, and completeness of data reported.

Name of Authorized Representative: Dr. Robert Houser

Title: AVP for Research & Sponsored Programs

Signature: 

Date: 3/30/17

An Intervention for Infants and Toddlers with Visual Impairment: Independence Through the Mealtime Routines Model
R324A160139

Executive Summary of the Annual Report
Project Year One (7/1/2016 – 2/28/2017)

This Institute of Education Sciences annual report documents the first eight months of a project examining independent eating skills of infants with visual impairment. The primary goal of the Mealtime Routines for Visual Impairment (MRVI) Intervention Project is to create a fully developed intervention that will assist Teachers of Students with Visual Impairment in Early Intervention (TSVI-EIs) to work with families in supporting infants and toddlers with visual impairment in mealtime independence. At the completion of this project we will provide evidence of the usability, feasibility, fidelity of implementation, and promise of the MRVI Intervention.

Accomplishments. At the time of this report, project staff have accomplished the following benchmarks from its Performance Agreement:

> For Study One: (a) obtain mailing lists for survey participants; (b) recruit participants; (c) create survey; (d) conduct survey; and (e) analyze survey.

Study One was completed in November 2016. Results from Study One indicate that the majority of both visual impairment and early intervention personnel who responded to the survey felt that they did not have sufficient training or experience to support families in the area of mealtime independence. In addition, an indication that the respondents lacked knowledge of key developmental facts regarding feeding and mealtimes was demonstrated by a mean score on the Typical Mealtime Development Quiz (TMDQ) of 7.54 of a possible 15 points.

> For Studies Two-Four: (f) recruit teacher and family participants; (g) random assignment of teachers to coaching/no coaching conditions; (h) train TSVI-EIs; and (i) implement the 3 studies.

Study Two was completed in January 2017. Results from Study Two indicate that the TSVI-EIs participating in the training made small but significant progress on the same TMDQ quiz following training. Considerable value was attributed to the training by the TSVI-EIs in their Practitioner Impression Journals, and an evaluation of the training after returning home highlighted successes and frustrations. Information from both studies have been used to revise the training and elements of the MRVI Intervention.

Continuous data collection, analysis, and review for Studies Three and Four have been underway since February 2017 and will continue until December 2017. Data are collected

monthly and analyzed quarterly. TSVI-EIs were randomly assigned to coaching and no-coaching groups, and then randomly assigned to one of three coaches.

Products. Project staff were invited to present at the Western Regional Early Intervention Conference in June 2017, and two proposals have been submitted for presentation at the Council for Exceptional Children Division for Early Childhood Conference and the Food and Nutrition Conference and Exposition (both in October 2017). A project website is under development, and the report details several instances of technology applications, including Microsoft's OneDrive (which is FERPA and HIPAA compliant), Canvas, Dedoose, and the Tablet-Based Data Collection Tool (TBDCT), developed specifically for this project. Several data collection instruments have been created for the project and are described in the report.

Participants and Collaborating Organizations. Key personnel and consultants remain involved in the project. All have assumed responsibility for various aspects of project development and are currently scoring assessments for Studies Three and Four, following a protocol where at least two individuals score each assessment but are randomly assigned each month to view the videos of different participants. TSVI-EI Participants are employed at collaborating organizations that serve infants and toddlers with visual impairment in Alaska, Illinois, Kentucky, Missouri, New Mexico, Ohio, Utah, and Washington. A Denver agency provided space at no cost for the Study Two training.

Changes/Problems. As the project waited for IRB approval from the University of Northern Colorado, some project tasks (primarily around recruitment of subjects) were slightly delayed. The Study One survey did not meet its projected goal of 400-500 respondents, largely due to one mailing list that was only available by postal address rather than email. Performance on the Typical Mealtime Development Quiz was informative in both Study One and Study Two, and the Study Two training overall demonstrated high satisfaction and new knowledge for participants. Other problems included (a) families declining to participate after the corresponding TSVI-EI had already been trained, and (b) a planned assessment that was judged to be inappropriate for use with infants who are visually impaired. All of these issues have been addressed.

The project is on task with its timeline and anticipates no problems in meeting future performance objectives.

Project Narrative - IRB

Title : IRB

Attachment:

File :

1. **MRVI_Study_1_IRB.pdf**
2. **MRVI_Study_2_IRB.pdf**
3. **MRVI_Study_3_IRB.pdf**
4. **MRVI_Study_4_IRB.pdf**
5. **Ferrell_citiCompletionReport1853077.pdf**

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

DATE:	September 7, 2016
TO:	Kay Ferrell, PhD
FROM:	University of Northern Colorado (UNCO) IRB
PROJECT TITLE:	[947805-1] An Intervention for Infants and Toddlers with Visual Impairment: Independence through the Mealtime Routines Model -- Study 1
SUBMISSION TYPE:	New Project
ACTION:	APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE:	September 5, 2016
EXPIRATION DATE:	September 5, 2020

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Thanks so much for an excellent application. Best, Maria

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

DATE:	November 18, 2016
TO:	Kay Ferrell, PhD
FROM:	University of Northern Colorado (UNCO) IRB
PROJECT TITLE:	[981751-2] An Intervention for Infants and Toddlers with Visual Impairment: Independence Through the Mealtime Routines Model -- Study 2
SUBMISSION TYPE:	Amendment/Modification
ACTION:	APPROVED
APPROVAL DATE:	November 18, 2016
EXPIRATION DATE:	November 18, 2017
REVIEW TYPE:	Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of November 18, 2017.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

Dr. Ferrell -

Thank you for making the revision to the informed consent letter. The first reviewer, Dr. Collins, has provided approval. Subsequently, I've reviewed your original and revised materials and am also providing approval.

Best wishes with this project and don't hesitate to contact me with any IRB-related questions or concerns.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

DATE:	January 3, 2017
TO:	Kay Ferrell, Ph.D.
FROM:	University of Northern Colorado (UNCO) IRB
PROJECT TITLE:	[988159-2] An Intervention for Infants and Toddlers with Visual Impairment: Independence Through the Mealtime Routines Model -- Study 3
SUBMISSION TYPE:	New Project
ACTION:	APPROVED
APPROVAL DATE:	January 3, 2017
EXPIRATION DATE:	January 3, 2018
REVIEW TYPE:	Expedited Review

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of January 3, 2018.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

DATE:	January 4, 2017
TO:	Kay Ferrell, PhD
FROM:	University of Northern Colorado (UNCO) IRB
PROJECT TITLE:	[993617-1] An Intervention for Infants and Toddlers with Visual Impairment: Independence Through the Mealtime Routines Model -- Study Four
SUBMISSION TYPE:	New Project
ACTION:	APPROVED
APPROVAL DATE:	January 3, 2017
EXPIRATION DATE:	January 3, 2018
REVIEW TYPE:	Expedited Review

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

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Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of January 3, 2018.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

Thanks so much for such a well written request. Best, Maria

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Kay Ferrell (ID: 1853077)
- **Email:** kay.ferrell@unco.edu
- **Institution Affiliation:** University of Northern Colorado (ID: 1785)
- **Institution Unit:** Special Education
- **Phone:** 970-351-1653

- **Curriculum Group:** Social & Behavioral Research Investigators
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Stage 1

- **Report ID:** 4835304
- **Completion Date:** 13-Aug-2016
- **Expiration Date:** 12-Aug-2020
- **Minimum Passing:** 80
- **Reported Score*:** 96

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Belmont Report and CITI Course Introduction (ID: 1127)	08-Aug-2016	3/3 (100%)
Students in Research (ID: 1321)	08-Aug-2016	5/5 (100%)
History and Ethical Principles - SBE (ID: 490)	08-Aug-2016	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	08-Aug-2016	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	08-Aug-2016	5/5 (100%)
Assessing Risk - SBE (ID: 503)	08-Aug-2016	5/5 (100%)
Informed Consent - SBE (ID: 504)	12-Aug-2016	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	12-Aug-2016	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	12-Aug-2016	5/5 (100%)
Research with Children - SBE (ID: 507)	12-Aug-2016	5/5 (100%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	12-Aug-2016	5/5 (100%)
International Research - SBE (ID: 509)	12-Aug-2016	5/5 (100%)
Internet-Based Research - SBE (ID: 510)	13-Aug-2016	5/5 (100%)
Research and HIPAA Privacy Protections (ID: 14)	13-Aug-2016	5/5 (100%)
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	13-Aug-2016	4/4 (100%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	13-Aug-2016	5/5 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	13-Aug-2016	2/5 (40%)
University of Northern Colorado (ID: 13922)	13-Aug-2016	No Quiz

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: https://www.citiprogram.org/verify/?4042afd9-92bf-4d3d-ac62-73c2da6f65bd

CITI Program
Email: support@citiprogram.org
Phone: 888-529-5929
Web: https://www.citiprogram.org

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 2 OF 2
COURSEWORK TRANSCRIPT**

** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Kay Ferrell (ID: 1853077)
- **Email:** kay.ferrell@unco.edu
- **Institution Affiliation:** University of Northern Colorado (ID: 1785)
- **Institution Unit:** Special Education
- **Phone:** 970-351-1653

- **Curriculum Group:** Social & Behavioral Research Investigators
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Stage 1

- **Report ID:** 4835304
- **Report Date:** 13-Aug-2016
- **Current Score**:** 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Students in Research (ID: 1321)	08-Aug-2016	5/5 (100%)
University of Northern Colorado (ID: 13922)	13-Aug-2016	No Quiz
History and Ethical Principles - SBE (ID: 490)	08-Aug-2016	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	08-Aug-2016	5/5 (100%)
Belmont Report and CITI Course Introduction (ID: 1127)	08-Aug-2016	3/3 (100%)
The Federal Regulations - SBE (ID: 502)	08-Aug-2016	5/5 (100%)
Assessing Risk - SBE (ID: 503)	08-Aug-2016	5/5 (100%)
Informed Consent - SBE (ID: 504)	12-Aug-2016	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	12-Aug-2016	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	12-Aug-2016	5/5 (100%)
Research with Children - SBE (ID: 507)	12-Aug-2016	5/5 (100%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	12-Aug-2016	5/5 (100%)
International Research - SBE (ID: 509)	12-Aug-2016	5/5 (100%)
Internet-Based Research - SBE (ID: 510)	13-Aug-2016	5/5 (100%)
Research and HIPAA Privacy Protections (ID: 14)	13-Aug-2016	5/5 (100%)
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	13-Aug-2016	4/4 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	13-Aug-2016	5/5 (100%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	13-Aug-2016	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: https://www.citiprogram.org/verify/?4042afd9-92bf-4d3d-ac62-73c2da6f65bd

Collaborative Institutional Training Initiative (CITI Program)
Email: support@citiprogram.org
Phone: 888-529-5929
Web: https://www.citiprogram.org

Project Narrative - Indirect Cost Agreement

Title : Indirect Cost Agreement

Attachment:

File :

1 **UNC_IDC_Rates.pdf**
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COLLEGES AND UNIVERSITIES RATE AGREEMENT

EIN:

DATE:02/12/2016

ORGANIZATION:

University of Northern Colorado
Campus Box 44
Carter Room 1002
Greeley, CO 80639

FILING REF.: The preceding agreement was dated 03/17/2015

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: INDIRECT COST RATES

RATE TYPES: FIXED FINAL PROV. (PROVISIONAL) PRED. (PREDETERMINED)

EFFECTIVE PERIOD

TYPE	FROM	TO	RATE(%)	LOCATION	APPLICABLE TO
PRED.	07/01/2014	06/30/2015	35.00	On-Campus	All Programs
PRED.	07/01/2015	06/30/2016	36.50	On-Campus	All Programs
PRED.	07/01/2016	06/30/2017	37.00	On-Campus	All Programs
PRED.	07/01/2017	06/30/2018	38.00	On-Campus	All Programs
PRED.	07/01/2014	06/30/2018	16.00	Off-Campus	All Programs
PROV.	07/01/2018	06/30/2019	38.00	On-Campus	All Programs
PROV.	07/01/2018	06/30/2019	16.00	Off-Campus	All Programs

*BASE

Modified total direct costs, consisting of all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel and up to the first $25,000 of each subaward (regardless of the period of performance of the subawards under the award). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of $25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs.

ORGANIZATION: University of Northern Colorado

AGREEMENT DATE: 2/12/2016

SECTION I: FRINGE BENEFIT RATES**

TYPE	FROM	TO	RATE(%)	LOCATION	APPLICABLE TO
PRED.	7/1/2016	6/30/2017	29.50	All	(1)
PRED.	7/1/2016	6/30/2017	16.20	All	(2)
PROV.	7/1/2017	6/30/2018	29.50	All	(1)
PROV.	7/1/2017	6/30/2018	16.20	All	(2)

** DESCRIPTION OF FRINGE BENEFITS RATE BASE:

Salaries and wages including vacation, holiday, sick leave pay and other paid absences.

(1) Salaried employees working half-time or more.
(2) Salaried employees working less than half-time and non-student hourly.

ORGANIZATION: University of Northern Colorado

AGREEMENT DATE: 2/12/2016

SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

The fringe benefits are charged using the rate(s) listed in the Fringe Benefits Section of this Agreement. The fringe benefits included in the rate(s) are listed below.

TREATMENT OF PAID ABSENCES

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims are not made for the cost of these paid absences. Payment for unused leave at the time when employee separates is included in the fringe benefits pool.

OFF-CAMPUS DEFINITION: For all activities performed in facilities not owned by the institution and to which rent is directly allocated to the project(s) the off-campus rate will apply. Grants or contracts will not be subject to more than one F&A cost rate. If more than 50% of a project is performed off-campus, the off-campus rate will apply to the entire project.

DEFINITION OF EQUIPMENT
Equipment is defined as tangible nonexpendable personal property having a useful life of more than one year and an acquisition costs of $5,000 or more per unit.

The following fringe benefits are included in the fringe benefit rate(s): FICA/MEDICARE, WORKERS COMPENSATION, HEALTH/DENTAL/LIFE INSURANCE, DISABILITY INSURANCE, UNEMPLOYMENT COMPENSATION, TERMINATION LEAVE PAYMENTS, PERA, TUITION GRANTS, AND RETIREMENT PLAN.

This agreement updates fringe benefits only.

NEXT PROPOSAL
An indirect cost rate proposal based on your fiscal year ending 06/30/17 is due in our office by 12/31/17 and your next fringe benefits proposal based on fiscal year ending 06/30/16 is due by 12/31/16.

ORGANIZATION: University of Northern Colorado

AGREEMENT DATE: 2/12/2016

SECTION III: GENERAL

A. LIMITATIONS:

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its facilities and administrative cost pools as finally accepted: such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as facilities and administrative costs are not claimed as direct costs; (3) Similar types of costs have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Title 2 of the Code of Federal Regulations, Part 200 (2 CFR 200), and should be applied to grants, contracts and other agreements covered by 2 CFR 200, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:

If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

BY THE INSTITUTION:

University of Northern Colorado

(INSTITUTION)

Larey Snyder

(SIGNATURE)

Larey Snyder

(NAME)

Controller

(TITLE)

2.22.16

(DATE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(AGENCY)

Arif M. Karim -S

Digitally signed by Arif M. Karim -S
DN: c=US, o=U.S. Government, ou=HHS, ou=PSC, ou=People, cn=Arif M. Karim -S, 0.9.2342.19200300.100.1.1=2000212895
Date: 2016.02.19 10:57:24 -06'00'

(SIGNATURE)

Arif Karim

(NAME)

Director, Cost Allocation Services

(TITLE)

2/12/2016

(DATE) 1006

HHS REPRESENTATIVE: Jeanette Lu

Telephone: (415) 437-7820

Project Narrative - Publications

Title : Publications

Attachment:

File :

1 **MRVI_Publications.pdf**
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The MRVI Intervention Project has no publications at this time.

Project Narrative - Research Performance Progress Report

Title : Research Performance Progress Report

Attachment:

File :

1 R324A160139_Annual_Report.pdf
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An Intervention for Infants and Toddlers with Visual Impairment: Independence Through the Mealtime Routines Model
R324A160139

Annual Report
July 1, 2016-February 28, 2017 (Year 1)

I. ACCOMPLISHMENTS:

A. WHAT ARE THE MAJOR GOALS OF THE PROJECT?

The primary goal of the Mealtime Routines for Visual Impairment (MRVI) Project is to create a fully developed intervention that will support Teachers of Students with Visual Impairment in Early Intervention (TSVI-EIs) to work with families in supporting infants and toddlers with visual impairment in mealtime independence. At the completion of this project we will provide evidence for the usability, feasibility, fidelity of implementation, and promise of the MRVI Intervention.

B. WHAT WAS ACCOMPLISHED UNDER THESE GOALS?

All elements of the Performance Agreement for Project Year One have been completed or are currently in progress.

<u>Study One</u>

All tasks for Study One, the MRVI Intervention Early Intervention Survey and Typical Mealtime Development Quiz (TMDQ), have been completed. The goal of this study was to survey TSVI-EIs and other EI providers about their understanding of typical mealtime development skills and their experiences with families of infants and toddlers with visual impairment in mealtime routines. Respondents were recruited by contacting the following organizations:

- Association for Education and the Rehabilitation of the Blind and Visually Impaired (AER). An email invitation with the link for the survey was sent out by the organization's administrative staff to 294 individuals who were members of the Infant and Preschool Division of AER. This invitation was sent out three times between September 30th and November 15th.
- Council for Exceptional Children's Division for Early Childhood (CEC-DEC). This organization's mailing list was purchased by the MRVI Intervention project and 842 printed invitations to participate in the survey were mailed. Approximately 4% were returned as undeliverable. Initially we had been told that an email list was available,

but apparently this was a misunderstanding. Because of the additional expenses of printing, envelopes, and postage, we only mailed to this list one time.

- Early Intervention – Visual Impairment for Infants and Toddlers Listserv. This listserv is administered by the University of Arizona in Tucson, AZ for 664 TSVI-EIs worldwide. An email invitation with the survey link was sent out three times between September 30th and November 15th.

Items in the survey included demographic information about the respondents, how long they may have provided EI services, what pre-service and professional development experiences they have received regarding mealtime information, and their experiences working with families of infants and toddlers with visual Impairment.

Items for the TMDQ were created from various developmental assessments and reliable resources suggested by the Research Team. The Survey and TMDQ were reviewed internally by the MRVI Intervention Research and Intervention Teams for accuracy and relevance. Both were then reviewed by practitioners and revised based on their feedback. Expert review of the Survey and TMDQ was completed by ten external experts in early intervention, nutrition, occupational therapy, and speech/language therapy, who helped to clarify ambiguities in the Survey and TMDQ. Changes were again made in the online Qualtrics version (Qualtrics, 2015) based on these recommendations. After IRB approval, the Survey and TMDQ were distributed to the mailing lists and listserv identified above. The Qualtrics survey was available to respondents from September 30th through November 15th, 2016, and then it was officially closed. Some items from the TMDQ are shown below (the correct responses are indicated by bold font).

1. A child is typically able to hold and use a spoon with minimal assistance by the age of:
    a) 11 to 14 months
    b) **15 to 18 months**
    c) 19 to 22 months
    d) 23 to 26 months

2. Typically, children are able to drink independently from a cup with a lid by the age of:
    a) 6 to 8 months
    b) 9 to 11 months
    c) **12 to 18 months**
    d) 19 to 24 months

A full analysis of the MRVI Intervention Early Intervention Survey and (TMDQ) is appended to this report as **ADDITIONAL INFORMATION #1**. The results were used to inform the training conducted as part of Study Two and the substance of the MRVI Intervention itself. Highlights of the Survey and TMDQ include:

- A total of 197 respondents completed the survey. Of these, 119 identified themselves as Teachers of Students with Visual Impairment (TSVIs) and 92 of the TSVIs responded to all fifteen TMDQ items.

- 63% of 197 respondents indicated that more than half of the young children with visual impairment on their caseloads experienced mealtime challenges.
- 62% of the respondents felt they did not have sufficient training or experience to support families in the area of mealtime routines.
- The score for the TMDQ was based on correct responses to 15 possible facts. The group responded correctly to a mean 7.54 facts (*sd* = 1.61). The median correct was 8 facts. There was not a significant difference between the responses of TSVI-EIs and those of other EI professionals.
- Individual item analyses led to changes in the TMDQ for the participants in Study Two.

Study Two

All tasks for Study Two, the MRVI Intervention TSVI-EI Training, have been completed. The goal of Study Two was to enhance the TSVI-EI practitioner's understanding of the development of mealtime skills in young children with visual impairment, ensure their mastery of the online resources in the MRVI Intervention**,** and assess their use of family-centered practices and coaching skills during a simulated EI session.

Participants for the study were recruited as follows. Letters of commitment from organizations that provide early intervention service to families with infants and toddlers with visual impairment across the United States were received prior to project funding. After the informed consent documents for Study Two were approved, emails were sent out to these collaborating agencies, providing information about the project and informed consent documents for TSVI-EIs. Participants for Study Two were referred from the following organizations:

- Children's Center for the Visually Impaired (Missouri) (n = 2)
- Illinois State University EL VISTA Project (n = 1)
- Maryland School for the Blind (n = 0)
- New Mexico School for the Blind and the Visually Impaired (n = 2)
- Visually Impaired Preschool Services (Kentucky) (n = 1)
- Utah State School for the Deaf and Blind Parent Infant Program (n = 2)
- Washington State School for the Blind (n = 2)

Of these 10 referrals, 9 fully met the criteria for participation, and these nine individuals executed consent documents.

Individuals who responded to the Study One survey were encouraged to contact the Principal Investigator or the Project Coordinator by email if they were interested in becoming a participant in any of the other studies for this project. Eighteen (18) individuals contacted us and received information on the MRVI Intervention Project and the criteria for participating. Three individuals were recruited from this list. In total, twelve TSVI-EIs were recruited.

Arrangements were made for all twelve to travel to Denver, Colorado, for a week of intensive training.

The Study Two Training was based on the previous three-year exploratory case study (Smyth, Spicer, & Morgese, 2014) (the "Gerber study") and the results of Study One. Designed with a Tell-Show-Try-Apply model (Browder et al., 2012), the training included content and resources that addressed typical mealtime development skills and strategies to implement the MRVI Intervention. An online resource library was created for the TSVI-EIs to use with families that focuses on the four areas of the MRVI Intervention (Developmental Skills, Utensil Use, Parent Support, and variety of Healthy Food Choices). Study participants were given a revised version of the TMDQ from Study One as a pre-test to have a better idea of what the TSVI-EIs knew about typical mealtime development skills, provided with focused presentations on this subject during the training and given the same TMDQ after the training was over. The increase in mean scores from pretest to posttest was significant ($t = 2.90$, $p < 0.0083$), but unimpressive, since it reflected at gain of only two correct responses from the pre-test low of four correct responses (see report in **ADDITIONAL INFORMATION #2**). Given that the TSVI-EIs had not had an opportunity to apply the knowledge they learned in the area of typical mealtime development skills in practice, we will assess them again halfway through Study Three to see if there is an increase in mean scores. Some examples of the adapted TMDQ items (again, the correct response is in boldface):

- The American Academy of Pediatrics recommends breastfeeding or infant formula be the sole source of nutrition until the age of _____ months. **(6)**

- Infants and toddlers may need to be exposed to different foods up to _____ times before accepting them. **(15)**

The Study Two training was also an opportunity to instruct the TSVI-EIs on the technology and data collection skills they would need in order to participate in Studies Three and Four with proficiency. Each day of the training focused on one or two areas of data collection skills such as video-taping family mealtimes and uploading that video to the secure OneDrive or entering a monthly assessment on the Tablet-Based Data Collection Tool (TBDCT). The TBDCT allows TSVI-EIs to enter data directly on their personal tablet during a home visit. Each evening the TSVI-EIs were required to take short Mastery Quizzes in the MRVI Intervention Training Canvas course that addressed the specific skills that were taught that day. The participants were expected to meet 85% mastery on these quizzes and if they did not, they would be asked to retake the quiz until mastery was acquired. Eight retakes were required but no one had to retake a Mastery quiz more than once. Some of the Mastery Quiz questions included (with correct responses in boldface):

1. The "Behavioral Pediatric Feeding Assessment" is located on your TBDCT and will be taken by the caregiver every month. What are the 2 parts of each question that need to be completed? (2 pts). A **[rating]** of 1 through 5, and whether the behavior is a **[problem].**

2. Explain the three steps to set your Notifications on Canvas. (3 pts)
   a. **Find and Open Your Profile in your Canvas course**
   b. **Open Notification Preferences**
   c. **Choose from four levels of Notifications**

3. Where will your monthly videos be uploaded? (1 Pt)
   a. TBDCT **b. One Drive** c. Canvas Course

Each evening, after the training was complete, the TSVI-EIs were asked to reflect on three questions about the day and enter their comments in the Canvas MRVI Intervention Training Course in their Practitioner Impression Journal (Yeong et al., 2015). The questions were:

1. Tell us something that you learned today that was a surprise. What are your thoughts about why it was a surprise for you?

2. What have you learned today that you feel will be a success for you during the use of the MRVI Intervention with families? Why do you think this?

3. What have you learned today that you think might be a challenge for you during the use of the MRVI Intervention with families? Why do you think this?

The TSVI-EIs' responses were reviewed by the Project Coordinator that evening, and changes to the training were made if needed, for example, to repeat content that was misunderstood, or to review a data collection strategy that was not clear to the participant. A content analysis identifying the major themes of the Practitioner Impression Journals during Study Two is appended to this report as **ADDITIONAL INFORMATION #3.** This reflective practice is repeated weekly throughout Studies Three and Four so that the TSVI-EI "voice" is always present in the iterative process of developing the MRVI Intervention.

The final day of the Study Two training involved a role-play of the application of knowledge, strategies, use of technology, and a demonstration of quality family-centered and coaching practices. The twelve TSVI-EIs were divided into four groups of three and given a mealtime routine scenario created from a real-life situation. Each participant had an opportunity to be video-taped as the EI provider, the parent, and the child. The TSVI-EIs worked together to practice and share MRVI Intervention resources and strategies to meet the needs of the family in their group. Participants were encouraged to watch their performance and reflect on how they could improve their practice through Practitioner Plan goals.

Most of the Study Two Participants completed an evaluation of the training (see **ADDITIONAL INFORMATION #4**) after returning home. The evaluation proved helpful for revising the MRVI Intervention content and training.

Study Three

All twelve IRB consents were collected for Study Three (TSVI-EI use of the MRVI Intervention) by January 31, 2017. The goal of Study Three is to determine the usability and feasibility of the MRVI Intervention and whether it is affected by coaching. TSVI-EIs were randomly assigned to one of two groups, one that receives weekly distance coaching from members of the Intervention Team (n = 6) and one that does not (n = 6). TSVI-EIs in the coaching group were also randomly assigned to one of three members of the Intervention Team (the "coaches"). The coaches review Practitioner Plans, complete Coaching Feedback forms, and record audio from two of the four coaching sessions each month.

All TSVI-EIs complete Practitioner Plans, share online resources and Idea sheets with families, submit weekly entries to the Practitioner Impression Journals, and upload monthly videos of a family mealtime for assessment. Every time a participant uses an online resource with a family, a data point is collected to determine if the resource is useful and should remain part of the MRVI Intervention. Monthly videos are scored with (a) the Coaching Practices Rating Scale (Rush & Shelden, 2005), (b) the Family-Centered Practices Checklist (Wilson & Dunst, 2005), and (c) the MRVI Intervention Implementation Fidelity Checklist (Smyth & Spicer, 2016) to compare the differences between coaching and non-coaching groups. All assessments are scored by two researchers trained to ≥ .90 agreement. Researchers have also been randomly assigned within assessment instrument to 6 of the 12 participants, so that scoring is balanced across researchers/participants. Every three months, the cumulative results from all assessments are compiled and used to review and revise the MRVI Intervention.

The MRVI Intervention Implementation Fidelity Checklist includes the table on the next page for each section that addresses the outcomes of the MRVI Intervention: Developmental Mealtime Skills, Healthy Food Choices, Parent Support, and Utensil Use. An example of the Utensil Use section appears *at the top of the following page*.

Mealtime equipment that was recommended and demonstrated by the Intervention Team during Study Two was ordered and distributed to the twelve TSVI-EIs to facilitate successful adaptations with the families. Each TSVI-EI received a package containing the following items:

- One high contrast EZ-PZ Mini Mat to place on the high chair tray or table
- Two Duocare textured spoons
- Six maroon spoons with flat bowls
- Two mini unbreakable Solo cups for open-cup drinking
- One Sip 'n Tip cup with ten straws
- One "P" teether and one "Q" teether

Utensil Use Instruction:

Early Interventionist initiated	**Time Stamp**	**Notes**
Observed opportunity to scaffold skill		
Observed new skill		
Observed positive interaction		
Observed negative experience		
Provide accurate information		
Follow up with Idea Sheet		
Check for Understanding		
Total:		

Family Initiated	**Time Stamp**	**Notes**
Active Listening strategy		
Response to parent request		
Response to positive interaction		
Response to negative experience		
Provide accurate information		
Follow up with Idea Sheet		
Check for Understanding		
Total:		

In addition, we have purchased and sent a small highchair at the request of one of the TSVI-EIs for a family that did not have the resources to purchase one on their own. TSVI-EIs have reported that use of these items during the MRVI Intervention has been exceptionally helpful, and families have been delighted.

At the time of this report, data collection has been completed for January baseline videos and the month of February. After March data are collected, we will review to determine if changes to the MRVI Intervention are necessary. We will iteratively review data cumulatively after June, September, and December data collections.

Study Four

All twelve IRB consents were collected for Study Four, the study designed to evaluate change in family and child outcomes during the MRVI Intervention, by February 4th, 2017. The goal of Study Four is to use relevant measurements to inform iterative changes to the MRVI Intervention to support change in the following family/child outcomes: (a) caregiver/child interactions, (b) parent confidence in the introduction of developmentally appropriate mealtime skills, and (c) child acquisition of independent mealtime skills. Families will identify individualized goals from the use of "Idea sheets" that include the areas of Visual Adaptations, Communication Strategies, Behavioral Strategies, and Child Initiation Strategies.

Measurements include monthly parent self-reports completed with the TSVI-EIs on behaviors at mealtime and a food intake tool developed specifically for the MRVI Intervention called the *Baby Early Eating Tool of Intake and Texture (BEET-IT)* (Clark & Erskine, 2016). Caregivers complete a three-day worksheet of the child's food intake, and then the TSVI-EI enters the areas of the BEET-IT that indicate which foods and textures the child is trying that month. A section of the BEET-IT is shown below.

SNACK FOODS/DESSERTS:
On average, in the past 3 days, how often was your infant/child been fed any of the following snacks or dessert items listed below? Include feedings by everyone who feeds the infant/child and include snack time items. Please use the measurement of a tablespoon or fraction of a household cup measure for each item below.

	Number of Servings Offered During Past 3 Days	**Average Portion Size (TB or cup)**	**Circle the Texture of the Corresponding Food Below: (circle all that apply)**	**Consumed (circle all that apply)**	**Touched (circle all that apply)**
Breakfast bars, Granola bars, Sport bars			Pureed Cut up Bite from whole piece	Yes No	Yes No
Chips, Cheetos, Crackers, Cookies, Pretzels			Pureed Cut up Bite from whole piece	Yes No	Yes No
Cake, Brownies			Pureed Cut up Bite from whole piece	Yes No	Yes No
Pudding, Custard, Ice cream			With toppings	Yes No	Yes No
Pastries, Cobbler, Strudel, Doughnuts			Pureed Cut up Bite from whole piece	Yes No	Yes No
Candy, Gummy fruit			Pureed Cut up Bite from whole piece	Yes No	Yes No
Other List:				Yes No	Yes No

Comments:

In addition, monthly videos of a family mealtime are scored by the Research Team using the following measurements:

- Erhardt Developmental Prehension Assessment (Erhardt, 1994)
- MRVI Mealtime Communication Measure (Morgese, 2016)
- NCAST Parent/Child Interaction Feeding Scale (Oxford & Findlay, 2015)
- Parent Confidence and Efficacy Scale (Dunst & Raab, 2002)

The MRVI Mealtime Communication Measure was created for the MRVI Intervention project to assess parental communication strategies before, during, and after each mealtime routine. Some of the items addressed in this tool include:

Preparing for the Mealtime:
__ Child usually indicates he/she is hungry in some way
__ Caregiver tells the child that mealtime preparation will begin
__ Caregiver tells the child if he/she will be leaving the area for mealtime preparation
__ Child is typically in the area where mealtime preparation occurs
__ Caregiver narrates what is happening as he/she prepares the ingredients and cooks.

All assessments are scored by two researchers trained to ≥ .90 agreement. Researchers have also been randomly assigned within assessment instrument to 6 of the 12 participants, so that scoring is balanced across researchers/participants.

At the time of this report, data collection has been completed for January baseline videos, and the month of February. After March data are collected, we will review to determine if changes to the MRVI Intervention are necessary and appropriate.

C. WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?

TRAINING ACTIVITIES FOR PROJECT STAFF:

Two members of the Research Team, two members of the Intervention Team, and the Project Coordinator (who is a member of both teams) participated in a four-day Denver program of the Nursing Child Assessment Satellite Training (NCAST) with a certified instructor. This training focused on meeting the requirements for reliability (95% or better) in scoring the Parent-Child Interaction Feeding Scale at the research level. The NCAST Parent Child Interaction Feeding Scale is particularly appropriate to meet the data collection needs of the MRVI Intervention Project as the assessment has a history of using observation to measure quality child-caregiver interactions at mealtime. It has been used with a variety of specific populations and allows for the understanding of adaptations in the mealtime environment. Project staff are excited about using this measurement with young children with visual impairment for the first time and the insight it may provide for the development of the MRVI Intervention. Research Level Certificates (95%) have been obtained for all five participants for the training and are available upon request.

PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR RESEARCH PARTICIPANTS:

The MRVI Intervention Study Two trained a cohort of 12 TSVI-EI practitioners, based upon the mealtime routine needs identified in a previous three-year exploratory case study (Smyth, Spicer & Morgese, 2014) and the results of the Study One needs assessment survey. The practitioners travelled to Denver, Colorado, and were engaged in a week-long professional development experience designed with the Tell-Show-Try-Apply model (Browder et al., 2012).

As stated above, the goal of Study Two was to enhance the TSVI-EI practitioner's understanding of the development of mealtime skills in young children with visual impairment, ensure their mastery of the online resources in the MRVI Intervention**,** and assess their use of family-centered practices and coaching skills during a simulated EI session.

Members of the MRVI Intervention Research and Intervention Teams provided face-to-face training in the areas of typical motor, communication, tactile, and mealtime development skills for infants and toddlers; the importance of social-emotional development at mealtimes; routine-based home visits and family-centered practices; and the importance of nutrition for infants and toddlers. Participants were encouraged to review and read all of the MRVI Intervention resources in a Canvas course module that was designed specifically for this training.

The training session also included (a) familiarizing TSVI-EIs with all of the technology to share intervention resources, and (b) inputting data for analysis in Studies Three and Four. Participants had opportunities to practice reviewing and using the technology expectations, and were quizzed nightly to make certain they attained mastery of the tools. The participants received additional instruction and were allowed to complete the quiz again as many times as necessary until mastery was met at 85%. No one needed to take the quiz more than one additional time. Iterative changes were made to the Study Two training the next day when TSVI-EI practitioner feedback from daily "impression journals" (Yeong et al., 2015) indicated that there was any confusion about instructional content or the use of technology.

The TSVI-EIs were encouraged to apply their new understanding of the components of the MRVI Intervention through participating in a video role-play exercise at the end of the training experience. Each group was given a mealtime routine scenario and each TSVI-EI took a turn as the EI provider, the child, and the parent. A quote from the impression journals that evening reflects the benefits this application experience provided:

> *Reflecting on the video-taping, it was uncomfortable and it I looked at if I probably would not recognize myself. I know that the videotaping was to give us confidence and practice to upload the video and that helped a lot. I feel more confident and ready and excited to incorporate the new knowledge in my every day practice.*

D. HAVE THE RESULTS BEEN DISSEMINATED TO COMMUNITIES OF INTEREST?

There has not been any dissemination of results at the time of this report. Two articles about the project have appeared in the local newspaper (see **ADDITIONAL INFORMATION #5**). See also the Products section for dissemination activities in progress.

E. WHAT DO YOU PLAN TO DO DURING THE NEXT REPORTING PERIOD TO ACCOMPLISH PROJECT GOALS?

We plan to continue to follow the project timeline, tasks, and activities as specified in our Performance Agreement.

II. PRODUCTS

A. PRESENTATIONS

Catherine Smyth (Project Coordinator) and Carol Spicer (Consultant) have been invited to speak at the biennial Western Regional Early Intervention Conference in Phoenix in June. The title of their presentation *is Mealtime Routines for Infants and Toddlers with Visual Impairment.* They will present general information on the Gerber project, discuss the results of Studies One and Two, and outline the goals for the entire MRVI Project.

Catherine Smyth (Project Coordinator), Hong Phangia Dewald (Graduate Research Assistant), and Hasan Zaghlawan (Co-Investigator) have submitted *The MRVI Intervention Project: Using family-centered practices in mealtime routines*, for presentation at the Division of Early Childhood Conference October 4-6, 2017 in Portland, Oregon. It is currently under review.

Alena Clark (Co-Investigator) and Jamie Erskine (Co-Principal Investigator) have submitted *Development of an Assessment Tool to Measure Intake at Weaning,* an abstract for poster presentation at the Food and Nutrition Conference and Exposition October 21-24, 2017 in Chicago, Illinois. This proposal describes the development of the BEET-IT dietary intake assessment tool that was created for the MRVI Project. It is currently under review.

Project funds are not budgeted for these conferences. The Institute of Education Sciences will be acknowledged for each presentation in proceedings and presentation materials.

B. WEB OR INTERNET SITES

A web site is under development that will have public access. The URL is http://MRVI-UNC.org (this URL links to a placeholder at the present time). The purpose, research questions, and outcomes of the project will be posted to the website as they become available. Eventually, if the MRVI Intervention proves successful, this website will include information about the intervention itself, with resources.

C. TECHNOLOGIES OR TECHNIQUES

This project utilizes several software applications (underlined below) for communication, data collection, scoring and storing data, and to provide training and coaching. OneDrive for Business, a file sharing application, is used primarily for communication among the research team and for holding documents such as IRB proposals and approvals, participant consents, meeting minutes, datasheets, reports, and administrative records. Access is secured and managed by the project coordinator and the primary investigators. It is compliant with FERPA and HIPAA regulations. A screenshot of OneDrive is found in **ADDITIONAL INFORMATION #6.**

Some data are collected via videos that are recorded by the TSVI-EIs usually in the home environment. Each TSVI-EI has an electronic tablet (provided with project funds) that is used to record the videos. The videos are uploaded to an individual folder on OneDrive for each TSVI-EI where assigned members of the research team may access them. The videos are de-identified each month in a OneDrive folder accessible only to members of the research team. The research team scores and analyzes the following assessments using these videos:

- NCAST Parent/Child Interaction Feeding Scale (Oxford & Findlay, 2015)
- Behavioral Pediatric Feeding Assessment (Crist, 1994)
- Coaching Practices Rating Scale (Rush & Shelden, 2006)
- Erhardt Developmental Prehension Assessment (Erhardt, 1994)
- Family-Centered Practices Checklist (Wilson & Dunst, 2005)
- MRVI Mealtime Communication Measure (Morgese, 2016)
- Parent Confidence and Efficacy Scale (Dunst & Raab, 2002)
- MRVI Intervention Implementation Fidelity Checklist (Smyth & Spicer, 2016)

Once videos are scored/analyzed, they are archived to an external drive dedicated to this project and stored under lock and key in the Project Office.

The Tablet Based Data Collection Tool (TBDCT) was created by Aaron Dewald, who is the programming and technology consultant for the MRVI Intervention Project. The TBDCT is used (a) to enter data collected by the TSVI-EI practitioner; (b) to upload data as it is scored by the research team; and (c) to share resources with families during home visits with the TSVI-EI practitioners. All data on the TBDCT are secured on Mr. Dewald's server, and he is the sole manager. Access to the TBDCT for the TSVI-EIs and for the research team is maintained separately. Examples of the TBDCT are found in **ADDITIONAL INFORMATION #6 and #7**.

Canvas, a learning management system application, is used to provide communication between the research and intervention teams and the TSVI-EIs. Separate learning modules are provided for coached and non-coached TSVI-EIs. Online resources for all TSVI-EIs are also available on Canvas (screen shots from the Canvas courses are available in **ADDITIONAL INFORMATION #7**.

Dedoose (SCRC, Los Angeles, CA) is a cross-platform software application that is used to qualitatively analyze the reflective Practitioner Impression Journals and the coaching audio recordings.

D. INVENTIONS, PATENT APPLICATIONS, AND/OR LICENSES

Nothing to report.

E. OTHER PRODUCTS

All items created for this project contain copyright attributions, and none are being shared outside of the project at this time, pending further revisions (although they can certainly be provided to the Project Officer). The products (underlined) created for the MRVI Intervention project are described below.

The Typical Mealtime Development Quiz (Smyth, Clark, Erskine, Ferrell, & Shaw, 2016) is a pre- and post-training assessment quiz to measure current knowledge of TSVI-EIs during Study One. The Typical Mealtime Development Quiz was revised and used in Study Two to measure the effect of training on TSVI-EIs recruited for Study Three. The outcome of the quiz is an indicator of preparedness of the TSVI-EIs for providing the MRVI intervention.

Canvas courses are continually being developed on an iterative basis as the intervention period is in progress. For Study Two, the MRVI Training Course was created and used to prepare the TSVI-EIs for requirements of the study protocol and to provide education regarding typical mealtime development. For Studies Three and Four, Canvas courses include the MRVI Intervention Coaching Course and the MRVI Intervention Participant Course. The second of these courses is for use by the non-coached TSVI-EIs. The Canvas platform provides the TSVI-EIs with a secure venue to submit their weekly Practitioner Impression Journal reflections and their Practitioner Plans.

The Baby Early Eating Tool of Intake and Texture (BEET-IT) (Clark & Erskine, 2016) is an assessment tool developed specifically for the MRVI Intervention project to measure the children's dietary intake or refusal of variety and texture of foods and beverages. It was pilot tested with interviews of several mothers of infants and toddlers prior to the beginning of Study 2 and is being implemented in Study Four. TSVI-EI practitioners were trained to administer the BEET-IT in Study Two.

The MRVI Intervention Implementation Fidelity Checklist (Smyth & Spicer, 2016) was created to measure the use of the MRVI Intervention materials and strategies by the TSVI-EIs and families during monthly videos. This tool will assist the Research Team

in measuring change observed during Study Three in the areas directly addressed by the MRVI Intervention.

The MRVI Mealtime Communication Measure (Morgese, 2016) is an assessment tool developed specifically for the MRVI Intervention project to measure parental communication strategies before, during, and after each mealtime routine. It is being implemented in Study Four through monthly video observations.

Technology Mastery Quizzes were developed for Study Two to measure the TSVI-EIs' comprehension and mastery of the technology necessary to implement the MRVI Intervention project. A pass rate of 85% was expected for each quiz and if this was not met, the individual was required to take that particular quiz again. All initial retakes were successful at meeting the 85% criteria.

MRVI Intervention Coaching Feedback Forms are completed by the Intervention Team Coaches for each coaching session. They provide documentation of coaching recommendations, discussions of strategies and resources used, and how much of each session was devoted to the different areas of the MRVI Intervention. Data collected in these documents are triangulated with audio recordings and the Practitioner Impression Journals to establish qualitative rigor.

Copies of any of these forms are available to the Project Officer upon request.

III. PARTICIPANTS AND OTHER COLLABORATING ORGANIZATIONS

A. WHAT INDIVIDUALS HAVE WORKED ON THE PROJECT?

Alena Clark, Ph.D., M.P.H, RD., CLC., Co-Investigator, is a registered dietitian and an Associate Professor at the University of Northern Colorado with extensive clinical and research experience in the areas of nutrition during pregnancy and infancy, breastfeeding support, and nutrition in child care centers. She has participated in the creation of the Typical Mealtime Development Quiz, and added significantly to the Online Resources content. Clark contributed to the Study Two training, presenting on the importance of nutrition for infants and young children, and providing instructional support for the participants in the administration of the Baby Early Eating Tool of Intake and Texture (BEET-IT) with families. She is a co-author of the BEET-IT, which the Research Team is using to assess food intake choices during monthly mealtime routines. She participated in the four session trainings on the NCAST Parent/Child Interaction Feeding Scale and is certified at the research level (95%) for data collection and inter-observer agreement. She completes and scores the monthly videos using the NCAST Parent/Child Interaction Feeding Scale and reviews anthropometric data and the BEET-IT submissions.

***Aaron Dewald, M.S., M.Ed.,* Technology Consultant,** assists the Research and Intervention Teams with customized data collection tools and helps to solve technology issues. He has created a data collection system for the teacher participants that allows them to collect data with families in real time on tablets in their homes (the TBDCT, above). The Research Team is also able to enter monthly scoring data for analysis using the online data collection system designed specifically for this project. Mr. Dewald will also create a public-facing website for the MRVI Intervention Project for dissemination purposes.

***Jamie Erskine*, *Ph.D., RD,* Co-Principal Investigator**, is a registered dietitian, a Professor of Nutrition and Dietetics, and the Director of the School of Health Sciences at the University of Northern Colorado. She collaborates with the Principal Investigator to provide oversight for the MRVI Intervention Project, following university policies and procedures, state and federal fiscal regulations, and IES reporting requirements. She has participated in the creation of the online Typical Mealtime Development Quiz, and added significantly to the Online Resources content organization, writing brief explanations for each item. She is a co-author of the BEET-IT, which the Research Team is using to assess food intake choices during monthly mealtime routines. Erskine participated in the four session trainings on the NCAST Parent/Child Interaction Feeding Scale and is certified at the research level (95%) for data collection and inter-observer agreement. She completes and scores the monthly videos using the NCAST Parent/Child Interaction Feeding Scale, and reviews anthropometric data and all BEET-IT submissions.

Kay Alicyn Ferrell, Ph.D., Principal Investigator, is Research Professor at the University of Northern Colorado. She provides experienced IES grant leadership for the MRVI Intervention Project and expertise in development of young children with visual impairment. Ferrell collaborates with Erskine and the university to meet all policies and procedures, state and fiscal regulations, and IES reporting requirements. Ferrell manages all project funds, in collaboration with Dr. Erskine, including hiring documents, independent contracts, work for hire contracts, transportation and stipends for participants, and purchasing. She has obtained office space and equipment for the project, shepherded the IRB documents for the first four studies, and arranged for the purchase of mailing lists for Study One. She provides continuous oversight for the conduct of the studies involved in this project and monitors inter-observer agreement on all assessments. She has randomly assigned TSVI-EIS to coaching groups, TSVI-EIs to coaches, and on a monthly basis randomizes which assessments are scored by which team members. Ferrell has provided item development guidance for the online Typical Mealtime Development Quiz for both the general Study One online survey and the targeted Study Two training version, and created the evaluation survey for the participant training experience. She attended most of the Study Two training and gave an overview of the project and outlined the organization and criteria for IES grants. Ferrell completes and scores the Coaching Practices Checklist for monthly data collection and inter-observer agreement.

Zoe L. Morgese, M.A., Speech/Language Pathologist, is a consultant on the MRVI Intervention Project as part of the Intervention Team. She has participated in the creation of the online Typical Mealtime Development Quiz, and added significantly to the Online Resources content. She was present at the Study Two training, presenting on the historical content of the

MRVI Intervention Project, typical communication and feeding development, communication and behavioral strategies for the MRVI Intervention, and providing instructional support for the participants. She is the author of the MRVI Mealtime Communication Measure, which the Research Team is using to assess parental communication strategies before, during, and after each mealtime routine. She participated in the four session trainings on the NCAST Parent/Child Interaction Feeding Scale and is certified at the research level (95%) for data collection and inter-observer agreement. She completes and scores the monthly Family-Centered Practices Checklists and provides ongoing communication and feeding development expertise to the Research Team. She is currently providing weekly coaching for two of the MRVI Intervention teacher participants, completing the Coaching Feedback forms and reviewing the Practitioner Plans.

Hong Phangia Dewald, M.A., Graduate Research Assistant, assists the MRVI Intervention Research Team. Her duties have included creating data collection spreadsheets for all assessments, editing of all Canvas Course content, and organizing Practitioner Impression Journal data transfer to Dedoose for analysis. She is trained on the Erhardt Developmental Prehension Assessment (EDPA) for monthly data collection and inter-observer agreement. Phangia Dewald has also provided the second researcher viewpoint on the qualitative content analysis of the Practitioner Impression Journals, meeting inter-observer requirements to determine and refine themes.

Laura Pickler, M.D., M.P.H., Developmental Pediatrician, provides consultation to the MRVI intervention Team through feeding content knowledge and medical recommendations. She has participated in the creation of the online Typical Mealtime Development Quiz for both the general Study One online survey and the targeted Study Two training version. She reviews child participant growth charts and consults with the Research Team as needed.

Carol Puchalski, M.A., Developmental Psychologist, is a consultant on the MRVI Intervention Project as part of the Intervention Team. She has participated in the creation of the online Typical Mealtime Development Quiz, and added significantly to the Online Resources content. Ms. Puchalski presented at the Study Two training on the effects of Social Emotional development on family mealtimes, and provided instructional support on parental confidence and behavioral strategies for the participants. She participated in the four session trainings on the NCAST Parent/Child Interaction Feeding Scale and is certified at the research level (95%) for data collection and inter-observer agreement. She completes and scores the monthly Parent Confidence and Efficacy Scale and provides ongoing parent-child relationship expertise to the Research Team.

Rose Shaw, Ph.D., is the statistical consultant for the MRVI Intervention Project. She has provided item development guidance for the online Typical Mealtime Development Quiz for both the general Study One online survey and the targeted Study Two training version. Dr. Shaw has created a report of study findings for Study One that includes an analysis of the demographic data collected on the individuals that completed the online survey and an item analysis of the Typical Mealtime Development Quiz. She has also created an item analysis of

the Study Two version of the Typical Mealtime Development Quiz, has analyzed the Study Two training evaluation (also found in **ADDITIONAL INFORMATION #4**), and consults on all aspects of Studies Three and Four.

Catherine Smyth, M.S., M.Ed., Project Coordinator, serves as the point of contact for everyone on the Research Team, Intervention Team, all of the study participants, and maintains the availability of the data collection technology. She has participated in the creation of the Study One online survey and the Typical Mealtime Development Quiz and added significantly to the Online Resources content. Smyth was responsible for Studies Two, Three, and Four recruitment tasks, including contacting organizations with letters of commitment, explaining the MRVI Intervention to interested participants, and distributing and collecting informed consent documents. She is the lead for the Intervention Team, scheduling monthly meetings and assigning duties as necessary. She also schedules monthly staff meetings for the Research Team, develops agendas, and distributes minutes. Smyth organized the Study Two training, creating both the agenda and the Canvas online course for the participants. She was present for all of the training, presenting on the historical content of the MRVI Intervention Project, typical tactile development, visual adaptation strategies for the MRVI Intervention, and providing instructional support for the participants in the use of the technology necessary to participate in data collection. Smyth created the daily Mastery Technology Quizzes and the Role-Play Scenarios for the Study Two Training.

Smyth participated in the four session trainings on the NCAST Parent/Child Interaction Feeding Scale and is certified at the research level (95%) for data collection and inter-observer agreement. She completes and scores the monthly MRVI Mealtime Communication Measure and the MRVI Intervention Implementation Fidelity Checklist. She is currently providing weekly coaching for two of the MRVI Intervention teacher participants, completing the Coaching Feedback forms and reviewing the Practitioner Plans. She also collects and reviews the qualitative content analysis of the Practitioner Impression Journals, meeting inter-observer requirements to determine and refine themes. Smyth maintains communication with teacher participants on a weekly basis, answering questions, providing data collection technology support, and connecting participants with appropriate consultants as necessary. She has created two online Canvas courses for the participants' use, one for the MRVI Coaching cadre and a more general informational MRVI Intervention Participant course. She is responsible for the materials that are stored in OneDrive and providing appropriate access to the MRVI Research Team.

Carol L. Spicer, B.S., Occupational Therapist, is a consultant on the MRVI Intervention Project as part of the Intervention Team. She has participated in the creation of the online Typical Mealtime Development Quiz, and added significantly to the Online Resources content. Ms. Spicer was present for all of the Study Two training, presenting on the historical content of the MRVI Intervention Project, typical motor and feeding development, behavioral and positional strategies for the MRVI Intervention, and providing instructional support for the participants. She is trained on the Erhardt Developmental Prehension Assessment (EDPA) for data collection and inter-observer agreement, and provides ongoing fine motor and feeding

development expertise to the Research Team. She completes the scores and reviews the Behavioral Pediatric Feeding Assessment for any concerns and is the liaison to Dr. Laura Pickler at Children's Hospital Colorado. She is currently providing weekly coaching for two of the MRVI Intervention teacher participants, completing the Coaching Feedback forms and reviewing the Practitioner Plans, and will assist in scoring the monthly MRVI Intervention Implementation Fidelity Checklist.

Hasan Zaghlawan, Ph.D., Co-Investigator, is an Assistant Professor at the University of Northern Colorado in Early Childhood Special Education. Dr. Zaghlawan is also a certified coach and trainer in the Routine-based Home Visit Model. He has contributed to the Study Two training, presenting on quality home visits and the use of family-centered practices. Zaghlawan has assisted the Research Team in developing the inter-observer agreement protocol, and he scores the Parent Confidence and Efficacy Scale, Family-Centered Practices Checklist, and the Coaching Practices Rating Scale.

B. WHAT OTHER ORGANIZATIONS HAVE BEEN INVOLVED AS PARTNERS?

Letters of commitment were received prior to funding of the MRVI Intervention project, indicating a willingness to participate in the research. These organizations provide Early Intervention services to families with infants and toddlers with visual impairment across the United States. After the informed consent documents for Study Two were approved, emails were sent out to these collaborating agencies.

Participants for Studies Two, Three, and Four were recruited first from the following organizations that submitted letters of commitment:

- Children's Center for the Visually Impaired (Missouri) (resulted in two participants)
- Illinois State University EL VISTA Project (resulted in one participant)
- Maryland School for the Blind (did not refer a participant)
- New Mexico School for the Blind and the Visually Impaired (resulted in one participant)
- Utah State School for the Deaf and Blind Parent Infant Program (resulted in two participants)
- Visually Impaired Preschool Services (Kentucky) (resulted in one participant)
- Washington State School for the Blind (resulted in two participants)

Three additional participants were recruited from Study One respondents who contacted the Principal Investigator and/or Project Coordinator for further information. Twelve TSVI-EIs who met the criteria for participation in the studies were invited to participate based on the order in which consent forms were returned to the project.

The University of Northern Colorado's Office of Sponsored Programs helps principal investigators and project directors with all aspects of managing a funded award, from negotiation and acceptance of the award to the final close out.

The University of Northern Colorado's Institutional Review Board (IRB) has reviewed and approved Studies One, Two, Three, and Four of the MRVI Intervention Project (approval letters are attached to this package). UNC has implemented the IRBNet system to streamline the IRB application and review process. IRBNet provides a paperless, electronic method for submission, tracking and review of applications for IRB approval.

Anchor Center for Blind Children in Denver, Colorado, provided meeting space free of charge for the week-long Study Two training in January 2017. Anchor Center is a nonprofit organization dedicated to providing early intervention and education to children birth to five years old who are blind or visually impaired. TSVI-EIs who participated in the training welcomed the opportunity to observe an early intervention program in operation and admired the innovative, visually-impaired-friendly design of the building. The Principal Investigator has been a member of Anchor Center's Professional Advisory Board since 1992. During the training, the University of Northern Colorado added Anchor Center to its liability insurance policy, for the protection of both Anchor Center and UNC.

IV. IMPACT

A. WHAT IS THE IMPACT ON THE DEVELOPMENT OF THE PRINCIPAL DISCIPLINE(S) OF THE PROJECT?

While we anticipate an impact on both special education and nutrition and dietetics fields, we have nothing to report at this time.

B. WHAT IS THE IMPACT ON OTHER DISCRIPLINES?

Nothing to report.

C. WHAT IS THE IMPACT ON THE DEVELOPMENT OF HUMAN RESOURCES?

Nothing to report.

D. WHAT IS THE IMPACT ON PHYSICAL, INSTITUTIONAL, AND INFORMATION RESOURCES THAT FORM INFRASTRUCTURE?

Nothing to report.

E. WHAT IS THE IMPACT ON TECHNOLOGY TRANSFER?

Nothing to report.

F. WHAT IS THE IMPACT ON SOCIETY BEYOND SCIENCE AND TECHNOLOGY?

Nothing to report.

G. WHAT DOLLAR AMOUNT OF THE AWARD'S BUDGET IS BEING SPEND IN FOREIGN COUNTRY(IES)?

Nothing to report.

V. CHANGES/PROBLEMS

A. CHANGES IN APPROACH AND REASONS FOR CHANGE

Study One. In the performance agreement, it was anticipated that 400-500 participants would complete the online MRVI Intervention Early Intervention Survey and Typical Mealtime Development Quiz (TMDQ) (Smyth et al., 2016), and every effort was made to reach that sample size. Eighteen hundred (1800) invitations were sent to both Teachers of Students with Visual Impairment (TSVI) and other Early Intervention (EI) professionals, both online and through printed letters. One hundred ninety-seven (197) respondents (10.9%) completed the survey. Of these, 119 identified themselves as Teachers of Students with Visual Impairment (TSVIs). We believe that the small number of other EI professionals who responded to the survey is due to the fact that the survey was online, and we were unable to acquire an email list from the organization that serves these professionals. While we could have circulated a printed survey with a business-reply return envelope, the cost was prohibitive. The result of this low response is that we have almost equal responses from both groups which is not an accurate reflection of the field. It is unknown exactly how many TSVI-EIs there are nationwide, but there should be many more EI professionals that are not Teachers of Students with Visual Impairment, just based on the size of the population of children. Nevertheless, the data collected were valuable in that knowledge of Typical Mealtime Development appears to be limited across both professions.

Study Two. The Typical Mealtime Development Quiz (TMDQ) (Smyth et al., 2016) administered for Study Two as a pre- and post-training measure of change in knowledge of the TSVI-EIs indicated overall improvement in knowledge, however, not to the extent that we felt was meaningful for practice. TSVI-EI practitioners in Study Three will be asked to retake the TMDQ again 6 months after training, to determine (a) if knowledge increases with practice, and (b) if that knowledge differs between coached and non-coached groups. The training content, organization, and assessment are continually being reviewed for possible revisions as the project continues.

Studies Three and Four. There was a slight delay in beginning studies Three and Four due to the IRB applications being submitted just prior to the Thanksgiving holiday and the end of the fall semester. Approval was not received until early January of 2017. Studies Three and

Four were originally scheduled to begin early to mid-January of 2017, but actually began the last week of January. Baseline videos were obtained for most subjects during January and the MRVI intervention began shortly thereafter. This delay does not affect intervention or data collection for the full year duration of studies Three and Four.

Infants. Our original proposal enrolled infants in Study Four between 6 and 12 months of age, and that was made clear to the TSVI-EIs in their consent documents. Unfortunately, the parents of two TSVI-EIs declined to participate after the TSVI-EIs were already trained. Each of these TSVI-EIs approached the next family on their caseloads who had a qualifying child. One family offered a 14-month-old. This did not present an issue, since we felt there was little developmental difference between 12 and 14 months. The second family meeting all criteria except age had an 18-month-old. After discussion with the Project Officer, this child and family were enrolled in the project. We believe that even if the 18-month-old proves to be an outlier for Study Four, we will still be able to use the MRVI Intervention data collected from the TSVI-EI for Study Three. The age criterion of 6 – 12 months will be adhered to in Study Five.

Assessments. The Early Intervention Developmental Profile (EIDP) (Rogers et al., 1981) was originally chosen as a criterion-referenced measure for the MRVI Intervention to look at monthly developmental progress in each child in Study Four. However, we have since determined that the EIDP is inappropriate for infants with visual impairment because:

- The assessment was not developed on a population of children with visual impairment;
- Some items must be administered in a specific protocol, but the nature of the video recording precludes direct administration;
- It is impossible to administer the entire test using the monthly videos alone; and
- The revised edition of the administration guidelines and the item descriptions are not available as they are out of print. The age ranges for the scoring sheet and the test item descriptions do not correspond to each other.

We recognize that most of this information should have been considered prior to selecting this assessment as a tool for this project. Unfortunately, we did not realize that we would be unable to acquire current administration guidelines. Fortunately, the areas of development critical to our iterative development were feeding/eating and fine motor skills. This information is already being collected through the use of the NCAST Parent-Child Interaction Feeding Scale (Oxford & Findlay, 2015) and the Erhardt Developmental Prehension Assessment (Erhardt, 1994).

B. ACTUAL OR ANTICIPATED PROBLEMS OR DELAYS AND ACTIONS OR PLANS TO RESOLVE THEM

No further delays are expected. We do plan to submit our IRB application for Study Five at the end of summer 2017 so that participant recruitment can begin sooner than it did in Study Two, but we recognize that TSVI-EIs cannot necessarily predict when an infant between 6 and

12 months of age will be referred to their caseloads. TSVI-EIs will be required to obtain parent consent before traveling to Denver for Study 5.

C. CHANGES THAT HAVE A SIGNIFICANT IMPACT ON EXPENDITURES

Costs for lodging required for participants in Study Two were greater than expected due to a change in state-approved lodging rates. In addition, some participants were not able to find fares within the state-negotiated contract. This was reported in our second quarterly report. We request carryover funds to address the probability of increased travel costs in Project Year Two.

D. SIGNIFICANT CHANGES IN USE OR CARE OF HUMAN SUBJECTS

Nothing to report.

E. CHANGE OF PRIMARY PERFORMANCE SITE LOCATION FROM THAT ORIGINALLY PROPOSED

Nothing to report.

VI. Special Reporting Requirements

Nothing to report.

VII. BUDGETARY INFORMATION

From the first project year, 1/1/2016 through 2/28/2017, $286,453 has been expended by the project. The project is committed to at least $142,978 in salaries, wages, fringe benefits, consultants, 1 participant stipend, and indirect costs through the end of the first Project Year on June 30, 2017. This leaves a balance of $17,099 in the budget through the end of the first Project Year, which will be expended for requested materials and supplies and other direct costs. Because we have been able to obtain some project materials at reduced cost, we expect to request a carryover of somewhere around $10,000. Details are provided below.

SF 424 Budget Categories	Grant Funds Awarded	Total Grant Expenses, 7/1/2016 – 2/28/2017	Commitments through 6/30/2017	March-June 2017 Expenses and Carryover Requested
Professional Salaries	$154,639	$102,846	$51,792	
Fringe Benefits	$45,619	$25,615	$20,004	
Grad Student assistant stipends	$9,804	$6,536	$3,268	

SF 424 Budget Categories	Grant Funds Awarded	Total Grant Expenses, 7/1/2016 – 2/28/2017	Commitments through 6/30/2017	March-June 2017 Expenses and Carryover Requested
Total Salary, Wages, & Fringe Benefits:	$210,062	$134,998	$75,064	
Travel	$18,151	$21,010		-$2,859
Material & Supplies	$10,543	$4,497		$6,046
Other Direct Costs: Consultants	$62,286	$33,526	$29,299	
Other Direct Costs	$27,666	$15,557	$1,000	$11,109
Indirect costs	$118,651	$76,865	$38,984	$2,802
Totals, 7/1/2016 – 2/28/2017	**$447,899**	**$286,453**	**$144,347**	**$17,099**

Budget Narrative

Salaries, wages, and fringe benefits. All expenses for salaries, wages, and fringe benefits for project personnel have been expended and encumbered as projected in the negotiated budget. No funds are expected to be available in this line at the end of the first Project Year.

Travel and changes in budget. As detailed in the second quarterly report, the budget for training the Study Two participants experienced an unexpected increase in expenses. While originally projected at $16,764, the actual cost was $19,269, almost entirely due to increases in the state lodging rate and air fares that exceeded the state agreement because of late reservations or uncontracted routes. We will transfer funds from Other Direct Costs to cover this overage. While we will be training fewer participants in Project Year Two for Study 5, one reason for requesting carryover of anticipated savings in Materials & Supplies and Other Direct Costs is to cover such additional expenses as next year's training might incur.

Materials and Supplies. Projected expenses for Dedoose and intervention materials have not yet been charged to the budget. We were able to obtain the Project Coordinator's computer at a savings, and we recycled the Principal Investigator's printer, resulting in additional savings. The cost of assessment materials was also less than expected when we were able to take advantage of a special offer from one of the vendors. Paper and printer cartridges and postage and shipping costs will be incurred before the end of this project year.

Other Direct Costs: Consultant Services. Independent contracts and work for hire agreements have been executed with all consultants. Some are a little quicker than others at submitting their invoices, but all funds requested have been paid or are encumbered through

the end of June 2017. Because we will be deciding at the beginning of the next budget period whether we will continue coaching for all participants, we propose to use some of the carryover funds for the additional time required of our consultants if we determine that coached interventionists perform better than non-coached interventionists.

Other Direct Costs. Requested funds for digital transcription and one participant stipend were not charged to our budget as of February 28, 2017; one stipend for $1,000 is therefore listed as a commitment. We followed university policy (one-half of tuition and fees in lieu of additional wages for each GRA employed at 20% for the calendar year) in budgeting for our Graduate Research Assistant's tuition, but we were fortunate to hire a doctoral student with more experience – which also means she needs fewer courses. This resulted in a $6,700 savings. As with materials and supplies, we were also able to save funds with our NCAST training, because the trainers recommended only completing one training (Parent/Child Interaction Feeding Scale).

Summary. As of February 28, 2017, we have a $17,099 balance in our first year budget. While some expenses have not yet been accounted for and are indeed expected before the end of the first budget year, we request the carryover of all unspent funds so that (a) we can cover the unbudgeted training expenses for Study 5 in Project Year Two (at least a $1900 increase in lodging alone); and (b) we can allow for any additional costs for our two consultant/coaches if coaching is found to make a significant difference in outcomes in Studies Three and Four. Due to the iterative nature of the development of the MRVI Intervention, we do not yet know the impact of any changes or recommendations resulting from our quarterly data analysis, but we are evaluating monthly. We will keep our Project Officer apprised of our progress in our quarterly reports.

OTHER COMPONENTS OF THE ANNUAL REPORT PACKAGE

2. PUBLICATIONS

No publications at this time.

3. CURRICULUM VITAE

Updated CVs for key personnel have been attached to the Annual Report Package, including statements of current and pending funding for each.

4. IRB

IRB approvals for Studies One through Four have been attached.

5. ADDITIONAL INFORMATION

Included in this part of the package are the following files, found in this order:

1. Study One: Data analysis report
2. Study Two: Pre-post scores on the TMDQ
3. Study Two: Content analysis of Practitioner Impression Journals
4. Study Two: Training evaluation
5. Newspaper articles
6. Technologies: OneDrive Screenshot
7. Technologies: TBDCT for Practitioners Screenshot
8. Technologies: TBDCT for Researchers Screenshot
9. Technologies: Canvas Screenshot

6. SF 4424 RESEARCH & RELATED BUDGET FORM – SECTIONS A & B; C, D, E, AND F-K

This form is attached in the package.

References

Browder, D. M., Jimenez, B. A., Mims, P. J., Knight, V. F., Spooner, F., Lee, A., & Flowers, C. (2012). The effects of a "Tell-Show-Try-Apply" professional development package on teachers of students with severe developmental disabilities. *Teacher Education and Special Education, 35*, 212-227. doi: 10.1177/0888406411432650

Clark, A., & Erskine, J. M. (2016). *Baby early eating tool of intake and texture* (BEET-IT). Greeley, CO: MRVI Intervention Project, University of Northern Colorado.

Crist, W. (1994). *Behavioral pediatric feeding assessment.* Halifax, Nova Scotia. IWK Health Center. Available from William.crist@iwk.nshealth.ca

Dunst, C., & Raab, M. (2002). *Parenting confidence and efficacy scale*. Asheville, NC: Winterberry Press.

Erhardt, R. P. (1994). *The Erhardt developmental prehension assessment* (EDPA). Maplewood, MN: Erhardt Developmental Products.

Morgese, Z. L. (2016). *MRVI mealtime communication measure* (MCM). Greeley, CO: MRVI Intervention Project, University of Northern Colorado.

Oxford, M. L., & Findlay, D. M. (Eds.). (2015). *NCAST caregiver/parent-child interaction feeding manual* (2nd ed.). Seattle, WA: NCAST Programs, University of Washington, School of Nursing.

Qualtrics (2015). Provo: Utah. Available from http://www.qualtrics.com

Rogers, S. J., Donovan, C. M., D'Eugenio, D. B., Brown, S. L., Lynch, E. W., Moersch, M. S., & Schafer, D. S. (1981). *Early intervention developmental profile*. Ann Arbor, MI: The University of Michigan Press.

Rush, D.D., & Shelden, M. L. (2006). *Coaching practices rating scale for assessing adherence to evidence-based early childhood intervention practices.* Center for the Advanced Study of Excellence in Early Childhood and Family Support Practices. Retrieved from http://eiexcellence.org/intervention-tools/

Smyth, C. A., Clark, A., Erskine, J. M., Ferrell, K. A., & Shaw, R. (2016). *Typical mealtime development quiz* (TMDQ). Greeley, CO: MRVI Intervention Project, University of Northern Colorado.

Smyth, C., & Spicer, C. L. (2016). *MRVI intervention implementation fidelity checklist.* Greeley, CO: MRVI Intervention Project, University of Northern Colorado.

Smyth, C., Spicer, C. L., & Morgese, Z. L. (2014). Family voices at mealtime: Experiences with young children with visual impairment. *Topics in Early Childhood Special Education, 34*, 175-185. doi: 10.1177/0271121414536622

Wilson, L. L., & Dunst, C. J. (2005). *Checklist for assessing adherence to family-centered practices.* Center for the Advanced Study of Excellence in Early Childhood and Family Support Practices. Retrieved from http://eiexcellence.org/intervention-tools/

Yeong Y., S., Ostrosky, M. M., Meyer, L. E., Favazza, P. C., Mouzourou, C., & van Luling, L. (2015). Using teacher impression journals to improve intervention effectiveness. *Topics in Early Childhood Special Education*. Advanced online publication. doi:10.1177/0271121415590810