NTID ASL Assessment Project
2020 Status Report

Peter C. Hauser, PhD – Director, Center on Culture and Language
Corrine Occhino, PhD – Research Asst. Professor & Director, Multimodal Language Lab
**Aim:**
Develop an ASL assessments battery for the evaluation of faculty ASL skills

1. Measure multiple areas of ASL proficiency
2. Provide assessment of individual linguistic skills
3. Allow faculty/staff to develop an ASL-skills portfolio
Peter Hauser PhD
Center on Culture & Language
Director
Asst. Dean of Research Mentoring

Corrine Occhino PhD
CCL Research
Research Assistant Professor
CCL Multimodal Language Lab
Director

Ryan Lidster ABD
PhD Candidate Uni. of Indiana
Dept of Second Language Studies
Instructor Japanese Lang. Program
Marshall University
RIT/NTID Student and Staff

Student involvement

- Maliheh Rahrovan (Digital Art Design) Film & Animation MFA student
- Noella Kolash (Program Design for MechTurk) Computing & Information Sciences PhD student
- Priyanka Nagesh Patil (Program Design for data norming) Computing & Information Sciences BA student
- 13 RIT/NTID undergraduate students (sign models)

Staff involvement

- Don Feigel (Director/Videographer/Editor) Communications, Marketing, & Multimedia
- Steve Lindsey (Application Development Manager) IT & Technology
- Tom Weymann (Sr. Applications Software Engineer) IT & Technology
- Christian Lutz (Application Software Engineer) IT & Technology
## Tests currently in use

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Type</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign Language Proficiency Interview (SLPI)</td>
<td>Production</td>
<td>Face to Face - interview</td>
</tr>
<tr>
<td>Classroom Sign Language Assessment (CSLA)</td>
<td>Production</td>
<td>Face to Face - observation</td>
</tr>
<tr>
<td>Group Communication Observation Tool (GCOT)</td>
<td>Production</td>
<td>Face to Face - observation</td>
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# New tests ready for use

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<td>ASL-Comprehension Test (ASL-CT) (Hauser et al. 2016)</td>
<td>Receptive</td>
<td>Web-based - multiple-choice</td>
</tr>
<tr>
<td>ASL- Discrimination Test (ASL-DT) (Bochner et al. 2015)</td>
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<td>Web-based - multiple-choice</td>
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Tests soon ready for use

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<tr>
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<td>Receptive</td>
<td>Web-based - multiple-choice</td>
</tr>
<tr>
<td>Fingerspelling &amp; Number Comprehension Test (FAN-CT)</td>
<td>Receptive</td>
<td>Web-based - short response</td>
</tr>
<tr>
<td>ASL ASSESSMENT BATTERY</td>
<td>Test Type</td>
<td>Format</td>
</tr>
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<td>----------------------------------------------------------------------------------------</td>
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ASL-Online Vocabulary Exam (ASL-OVE)
ASL-OVE Development

- **600 concepts** representing a range of difficulty
- **1800 foils** balanced for phonology & semantics
- **480** digital line-drawings w/ color balancing
- **10** student models from diverse backgrounds
- **1200** stimuli videos with natural articulation
ASL-Online Vocabulary Evaluation

Instructions

ASL-OVE™ is a multiple-choice task. Each item consists of a video of a concept signed in ASL accompanied by either four pictures or four printed words. In each case, please select the picture or word that you feel best matches the ASL sign. Be sure to pay good attention because the video will play just once! Double click what you believe to be the answer. Clicking once will highlight your choice in green; clicking a second time will submit your answer as final. Do not deliberate too long as you have just seven seconds to register a response for each question. Items will continue to load until you have completed the list.

Take the Test
flexible
dissertation
business
marketing
ASL-OVE Piloting & Data norming

- Pilot testing at NCCL Summer/Fall 2019
- Total participants tested = 188!!!
  - 86 Faculty
  - 54 Staff
  - 26 Students
  - 22 Non-signers

Thank You!
Now completing a months-long data analysis

Still measuring & trimming items

98,816 rows of data!!!
ASL-OVE To-do list

- Finish trimming items
- Run IRT analysis
- Select final version of test
- Give to programmers to develop final version
- Release for NTID use by Summer 2021
ASL-Fingerspelling and Numbers Comprehension Test (ASL-FaNCT)
FaNCT Development

Development
6 student sign models
700 targets
2 signers per target
1400+ videos

Corpus-based development
(What signs do people FS?)
Brick City News
Daily Moth
Sign1 News
Morford & MacFarlane 2003 corpus
Lepic 2016 corpus
NTID DeafTEC
NTID ASL Curriculum
NTID staff/faculty discussions

12 key categories
Numbers
Fingerspelling
Lexicalized
Non lexicalized
sign+FS
FS+Sign
Sign_number
Number+sign
number +FS
FS+number
Abbreviations
Proper names
Sign+Number+FS
ASL-Fingerspelling and Numbers Comprehension Test

Instructions

ASL-FaNCT is a free-response task. Each item consists of a video of a concept involving fingerspelling and/or numbers signed in ASL. Concepts may include fingerspelling or numbers in isolation or in conjunction with lexical signs. Each video will start automatically and run just once. After viewing, please use the response box to type what you think was signed (the entire expression, not just the fingerspelling or numbers) and click "submit." Answers are not case-sensitive so do not worry about capitalization. You have 30 seconds per item to submit an answer.

For number expressions, please use numerical keys – do not spell out the number.

✔ 37
✘ thirty-seven

Continue
The following three demos are provided to help you better understand the task before it begins
ASL-FaNCT Piloting & Data norming

- Pilot testing at CCL Winter 2019/Spring 2020
- Had scheduled 105 people but Covid cut our piloting short
- Total participants tested = 79 (mix of faculty and staff)

- After trimming items that did not discriminate well, FaN-CT will provided 200+ items, divided into five test forms, with 30 items each
FaNCT has excellent discriminability

We were able to divide the items into five balanced lists!

This means you can take the test over up to five times and will never see the same test twice! @
ASL-FaNCT To-do list

- Finish running statistics on items
- Give five test versions to programmers to develop final computer test
- Release for NTID use by Late Spring 2021
## ASL Assessment Development Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Activities</th>
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| 2018 | • Assemble team  
      • Research tests  
      • Design battery  
      • Develop stimuli  
      • Balance Items |
| 2019 | • Develop tests  
      • Program tests  
      • Norm stimuli  
      • Recruit participants  
      • Pilot tests |
| 2020 | • Analyze data  
      • Trim items  
      • Finalize test versions  
      • Program final version |
| 2021 | • Publish results  
      • Release final test versions for NTID use  
      • Develop testing portfolio page |
Questions?

For more information, contact the NCCL ASL Assessment Team:

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