

**Effective Techniques and
Tools for Immigrant Deaf and
Hard of Hearing Adults in
Bilingual and Bicultural
Literacy Programs:
A Practitioner Research
Project for Practical Results
(Phase I)**

**Final Report
Brent David Novodvorski
December 2008**

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The report can be found at:

National Adult Literacy Database

www.nald.ca

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in Deafness

<http://www.uofaweb.ualberta.ca/edpsychology/wccsd.cfm>

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Executive Summary

This report contains the findings and recommendations of the qualitative case study conducted by Bow Valley College Deaf and Hard of Hearing Adult Literacy Program. The research project was titled: "Effective Teaching Approach and Tools for Deaf and Hard of Hearing Adult Immigrants in Bilingual and Bicultural Education". Qualitative multiple case studies were the methodology of the research; interviews, direct in classroom observations and surveys were the methods employed. The project began in October 2008 and was completed in August 2008.

The research team that conducted this project included Brent David Novodvorski, principal investigator, Audrey Gardner, project supervisor and Dr. Debra Russell, independent consultant and external evaluator. The main question guiding this project was:

What are effective teaching approaches and tools for Immigrant Deaf and Hard of Hearing Adults in bilingual and bicultural (ASL and English) literacy programs?

In this study, the following activities were completed:

1. Review of literature to select research design and procedure and, develop interview and survey questions.

Research design was informed through consultation with the external evaluator and a review of literature obtained through research databases to develop questions to understand what bilingual and bicultural components should be considered and practiced for effective teaching and use of tools.

2. Data collection of effective teaching approach and tools for ASL-English bilingual education and Deaf/Non-deaf bicultural awareness.

Data were collected through on-site interviews with literacy practitioners in three colleges in different cities in Canada. These on site visits included classroom observations of teaching approaches and tools and a review of tools and materials. In addition, Deaf Education researchers were surveyed via email. Also, the principal investigator's reflection notes about the research and two presentations (Deaf Canadian Conference July 2008, and the Bow Valley College Applied Research Showcase June 2008) were included as data.

3. Key Findings Identified and Dissemination of Results

Data were analyzed to identify the common themes found across the multiple cases in this study as well as the perspectives between the literacy practitioners and researchers. Key findings identified were:

- ASL as a foundation to develop bilingual literacy skills to address the diverse language profiles of Deaf and Hard of Hearing Immigrants
- Lack of standardized ASL assessment tools

- Gaps between literacy practitioners and researchers on strategies for ASL acquisition and ASL-English bilingual skills
- Absence of strategies for Deaf and non Deaf bicultural education

This report was shared with participating literacy programs. The results are available in the National adult literacy database.

4. Recommendations from the Study

The participants, principal investigator and external evaluator identified several needs to be addressed:

- Increase communications between literacy practitioners and researchers to produce Deaf centered, research-based body of evidence
- Increase production of ASL based tools
- Implementation of National Deaf Literacy consortium to,
 - Provide opportunities for literacy practitioners and researchers to develop and standardize ASL language assessments for Deaf Adult Immigrants
 - Develop and share ASL curriculum for Deaf and Hard of Hearing Immigrant Adults
- Cultivate and maintain systematic approaches for colleges and government to implement bilingual and bicultural education in Deaf Adult literacy programs to support instructional practices.

5. Future Studies

American Sign Language for Deaf and Hard of Hearing Adult Learners plans to continue the research in Phase II. Phase II seeks to implement and pilot the tools and teaching approaches found in Phase I. Deaf and Hard of Hearing immigrant learners at Bow Valley College will be selected and invited to participate in interviews to give their feedback about its effectiveness.

Glossary of Terms

Here are the terms that are common throughout the research. Understanding will be easier if some are clarified from the start.

Deaf:

Deaf (Ladd, 2003) refers to those born Deaf or deafened in early (sometimes late) childhood for whom the sign languages, communities and cultures of the Deaf collective represents their primary experience and allegiance, many of whom perceive their experience as essential akin to other language minorities. Their experiences are expressed in ASL and Deaf Literature.

Non-Deaf:

A term used to identify people who are hearing.

ASL:

An acronym for American Sign Language – the sign language of Deaf culture in Canada.

Deaf Culture:

Deaf culture cannot be defined simply. It is an integral and living part of Deaf individuals which continually challenge and develop how a culture is defined. Baynton (1996) dedicated a chapter on how Deaf culture broadens the norms of a culture. Key points presented in the chapter were:

- Language of Deaf culture is literally handed down by means of sign language an “oral” tradition, parents often are hearing and they do not pass down sign language to the Deaf child
- Cultural stories are often learned from other Deaf people outside the family
- Deaf individuals share a sensory world that differed from that of the non-Deaf majority.

Deaf culture is shared through ASL and Deaf literature.

ASL Literature:

Bryne (1996 cited in CCSD¹ website) has defined American Sign Language Literature as a body of stories, legends, poems, riddles, humor and other genres told in ASL that have

¹ <http://www.ccsdeaf.com/indexe.html> (Fact Sheets)

been passed on from one generation to another by culturally Deaf people. It arises from the thoughts, emotions and experiences of culturally Deaf people.

Deaf Literature:

Deaf Literature is defined as a body of written stories, poems, songs and other genres which include Deaf characters, Deaf culture, Deaf identity and Deaf experiences in their work (Jacobowitz, 1998 cited in CCSD website). Deaf Literature uses the phonetic based English writing system to narrate about the Deaf culture.

English Literature:

Literature written in English.

Audism (Audist):

A name for the paternalistic, hearing centered endeavor that professes to serve deaf people; it was coined by Deaf scholar, Tom Humphries. Audism is the corporate construction for dealing with Deaf people, dealing with them by making statements about them, authorizing views of them, describing them, teaching about them, governing where they go to school and, in some cases where they live; in short, audism is the hearing way of dominating, restructuring and exercising authority over the Deaf community (Lane, 1999).



Introduction

A number of colleges in Canada provide adult literacy programs to Deaf and Hard of Hearing immigrants from various places of the world. Literacy practitioners with have experience in addressing their unique and complex language needs. This report reveals the views of participants about some of the effective teaching approaches and tools used to address the complexity of learner needs. The following elements were used in this research: qualitative multiple case studies collected and analyzed, descriptions and explanations about bilingual and bicultural components in Deaf adult literacy, teaching approaches, and the tools used to support Deaf and Hard of Hearing Immigrant learners. Recommendations were made to improve literacy practices.

Research Question

The research question was:

What are the effective tools and approaches for Deaf and Hard of Hearing adult immigrants in bilingual and bicultural education programs?

Boundaries of the Case Studies

We limited the context of our study. The study was not premised on the deficit or lack of sounds, something Deaf people don't have, but on the many different ways that Deaf people engage with literacy, recognizing their uniqueness and diversity and challenging how it is valued. Deaf and Hard of Hearing people are a linguistic minority rather than a disabled group of people; teaching approaches and tools that include auditory and verbal (oral) therapy² are beyond the boundaries of this study. Interested parties were asked about the use of auditory and verbal therapy in initial communications through e-mail correspondence and if it was determined that these were their approaches, they were not invited to participate.

The principal investigator predefined the tools and teaching approaches. Tools are text based materials such as electronic devices (DVD, videotapes, etc) and manipulatives (blocks, cards, etc.) that are utilized as strategies to facilitate language acquisition and use, either American Sign Language and English language. Tools include Deaf literature, ASL literature and English based literature. Moreover, tools include aids to assist learners to delve into the distinctive grammatical features of American Sign

² Auditory-Verbal therapy is a specialized type of therapy designed to teach a person to use the hearing provided by a hearing aid or a cochlear implant for understanding speech and learning to talk.

Language and English print, and develop communication competency and transition of meanings between these two languages.

Teaching approaches pertain to the methods and strategies used to support ASL-English bilingual and Deaf/non-Deaf bicultural education. Interview questions about teaching approaches included philosophical perspective, and the languages used for instruction and curriculum delivery. Participants were informed of this and other terminologies prior to data collection to provide an accurate representation of what is involved for effective teaching approach and use of tools.

Research Objectives

There have been anecdotes of success in Deaf and Hard of Hearing Immigrant learners improving their literacy but there is little documentation of within the Canadian literature.

The research objectives were,

- Increased knowledge of effective teaching and learning techniques and tools
- Plan for testing effective teaching and learning techniques and tools with BVC Deaf students (Phase II)
- Develop relationships with successful programs and key researchers in Deaf Education
- Identify resources available on effective tools and techniques in classroom based learning for Deaf adults

Research Design

This section shows the activities conducted to design the research; its methodology and methods.

- Qualitative Case Studies Methodology
- Interview Questions and Survey Methods (Direct observations)*
- Sampling

* For the flow of the report, the activities in direct observation method are reported in the data collection section.

QUALITATIVE MULTIPLE CASE STUDY METHODOLOGY

To examine the research question, qualitative multiple case study methodology was used. It is a process of exploring the research question to provide a detailed representation about what components needs to be considered for effective teaching approach and draws on tools for Deaf and Hard of Hearing immigrants.

The principal investigator visited several Deaf and hard of hearing adult immigrant literacy programs across Canada, and thus, the research involves multiple case studies. Because, each case (program) is unique, the researcher designed a replicable procedure, using similar questions and focus to identify similar themes and common differences across the cases. It is important to note that program evaluations were not part of the research.

INTERVIEW QUESTION AND SURVEY METHOD

The principle investigator, the project supervisor and external evaluator developed the interview and survey protocols. It involved questions in the areas of Deaf bilingual and bicultural education, its impact on teaching approaches and tools to meet the language needs in Deaf immigrant adult education. Developments of these questions were guided by the literature review and discussions between the principal investigator and external evaluator.

Also, after conducting an interview or receiving a survey, the responses were reviewed to determine whether revisions or clarifications of the questions or additional questions were necessary. If changes were necessary, the external evaluator reviewed the proposed changes.

The questions were designed to build a rich, accurate, detailed and comprehensive representation to study the cases. It delved into how and why this teaching approach or tool was effective. Thus, the interview and survey question design were semi-structured to allow participants to provide rich information.

Another factor that guided the interview and survey protocol, the questions was structured to allow the principle investigator and external examiner to draw comparison between practitioners' and researchers' perspectives. This helped the principal investigator and external evaluator to identify:

- Gaps of teaching strategies and tools emerged between researchers and literacy practitioners;
- Teaching approach and tools researchers studied that works well and what they found that does not work well;
- Effective teaching approach and tools that literacy practitioners used those researchers were not aware of and which teaching approach and tools needs to be researched.

Again, literacy practitioners' and researchers' perspectives deepened and broadened the case studies, and thus made similar themes and common differences explicit. See Appendices A, B and C for the questions.

SAMPLING

The sampling was purposive and criterion driven. Sampling involved identifying the participants, the institutions where they work and scope of their research. Participants in this study were recruited in several ways. A meeting between the principal investigator and external examiner created an initial list of participants. To expand the initial list, the principal investigator completed a scan on the internet for any college based literacy programs and explored the profiles of researchers. Lastly, the participating literacy practitioners and researchers further expanded the list of possible participants with their recommendations. This was conducted to maximize the perspectives available to inquire the research question.

PARTICIPANTS

The study had six informants from four provinces in Canada – British Columbia, Alberta, Manitoba and Ontario. There were three researchers in Deaf Education with a specialization in ASL-English bilingual education. There were three literacy practitioners from Adult Literacy College programs. Two Deaf literacy practitioners and two Deaf researchers participated in the research project.

LIMITATIONS OF THE RESEARCH PROJECT

Although the research project participants were from various regions of Canada, not every college and community program was available to contribute to this study. Thus, the study represents only a small pool of literacy practitioners and researchers who participated in this study. Please note that there were no articulations, written or spoken, by literacy practitioners that the tools they used were tested in research for validity and reliability. Also, only two participants consented to direct observations of their teaching approach and their use of tools in the classroom. Another limitation of the study is that we established a criterion of only studying teaching approaches and tools in ASL-English bilingual and Deaf and non-Deaf bicultural education.

Data Collection

Data were collected through:

- Interviews with literacy practitioners
- Online surveys for researchers in Deaf Education
- Observations of classroom practices
- Reflection notes of the research process

INTERVIEWS WITH LITERACY PRACTITIONERS

Literacy Practitioners were invited to participate in interviews via electronic mail. Two interview procedures were available: Videotaped interviews with the principal investigator writing down what they said after the interview or without being videotaped with the principal investigator taking notes during the interview. Responses were typed using MS Word and sent back to the interviewee through e mail for accuracy and verification. The received data were used for analysis.

ONLINE SURVEY FOR RESEARCHERS IN DEAF EDUCATION

Participant-researchers were contacted through e-mail. Surveys were submitted and collected through e-mail. The data were verified by the researchers and then used for analysis. Further correspondence with researchers through email was used to enrich the case context, extend understanding about their line of research and elaboration concepts / terminologies recorded in the survey. The literacy practitioners did not participate in the survey.

DIRECT OBSERVATIONS OF CLASSROOM PRACTICES

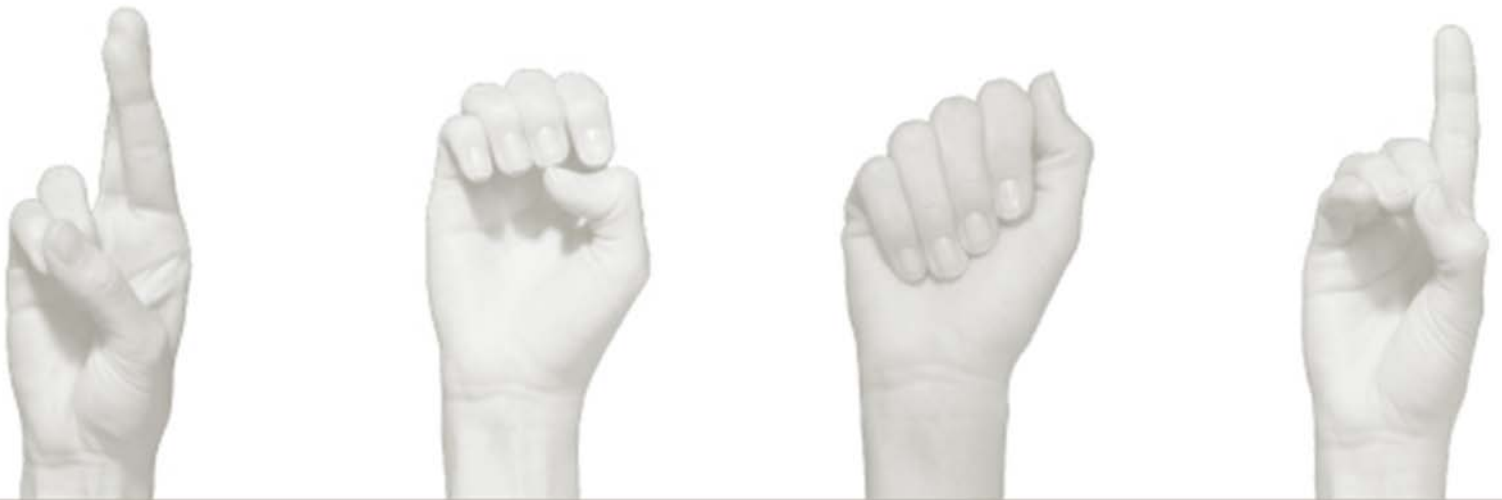
Data were collected through direct observation. The principal investigator conducted direct observations of the teaching approach and tools in classrooms. The direct observation was non-participatory and the principal investigator did not engage in the day-to-day classroom activities nor used the teaching approach and/or tools identified in the interview. The role of the principle investigator was an “outsider”.

A script was supplied to the participants prior to direct observation to introduce the principal investigator, and highlight the purpose of the research to their students (Appendix C). The teacher and students made a decision to include the principal investigator in the classroom prior to the on site visit. Moreover, the procedure and rationale of observing, taking field notes, and recording quotes as data were included in the script. If any quotations were recorded, they were shared with the literacy practitioners for verification and accuracy. Identities of students were not recorded during observation.

Direct observation was not used to collect data from researchers. Only two literacy practitioners consented to this data collection method.

DOCUMENTS

A scan of relevant literature was conducted throughout this study. Literature reviews were done through academic databases, websites of Deaf literacy programs, Deaf Education internet database, and other archival material.



Data Analysis

The protocol in data analysis was to organize, examine and interpret the description and explanations provided by the participants. Meetings were held between the project supervisor and principal investigator to discuss what the data revealed.

Data were managed by taking the qualitative information apart to scan and examine for common themes that shapes and impact the bilingual and bicultural components throughout the study. Color codes were used by the researcher to identified common key words and phrases, and then categorical aggregation was used to establish themes. The principal investigator and external evaluator conducted this procedure separately and then they met to integrate their analysis together.

The data were then reexamined by the external evaluator and the principal investigator to verify consistency of themes. The purpose of this reexamination provided an opportunity to reflect on the research objectives, particularly in relation to descriptions and explanations by participants. In other words, this pause in the analysis assisted us to answer the questions: Are we on track? What additional questions have emerged during the analysis? Were the participants perspectives made explicit? Will this lead to creating useful resource for practitioners to improve their literacy program, and to help those working in the field to incorporate effective tools and approaches reported into their programs?

These reflections were included in the preliminary findings. Several meetings between the principal investigator and the external evaluator were held to discuss the preliminary findings to produce the final report.

FINDINGS

This section contains the key themes identified by the principal investigator and external examiner from the data.

KEY THEME: CHALLENGES FOR LITERACY PROGRAMS

1. Diverse Learner Profile

There are a range of students in Deaf adult literacy programs; some of them have literacy skills from their country of origin and there are other students who arrive at the program without school education. Diverse learner profiles denote diverse language backgrounds. Some students may demonstrate strong communication skills, spoken, signed or written; some students may acquire few or no communication skills from their country of origin. This presents unique challenges on the design of programs and draws on resources – teaching talent, tools, and experiences. To address these challenges, literacy practitioners and researchers both reported that their teaching talent, tool selections, and experiences are converged towards ASL language development prior to any ASL-English bilingual and bicultural approaches.

Literacy practitioners and researchers both responded that literacy skills in American Sign Language are a strong indicator for successful acquisition of English. In Deaf adult immigrant education, American Sign Language is the target base language for bilingual skills in ASL and English. American Sign Language is the language of Deaf culture in Canada.

Literacy practitioners reported that *"Deaf community involvement is essential to expand ASL competency"*. Acquisition of ASL does not only bestow language to the Deaf, it empowers them and develops a sense of humanness. ASL is a widespread and is considered a fundamental starting point for bilingual and bicultural practices as a way to address the diversity of learner profiles.

This bridge to English as the language required for integration in Canada – exercising citizenship and democratic rights. Second language is the acquisition and use of phonetic based English language common to all programs in this study. Without ASL literacy skills, bilingual teaching approaches and tools cannot be effectively utilized and consequently, English language learning becomes a challenge.

A literacy practitioner responded,

"Throughout my 17 years of teaching experience, I noticed that L1 (ASL) proficiency is a good indicator for successful acquisition of L2 (English)...ASL is used to explain concepts to read print language, it makes teaching English easier"

A researcher stated, (same question here)

"The main quality that ensures success is an established first language base (typically in ASL)... We need to build their first language before we can move into bilingual teaching approaches"

2. Limitation of Standard Assessment Processes

With adult immigrant learners in most college programs, English as a Second Language (ESL) is the standard assessment process to identify language benchmarks and milestones. ESL standard assessment processes have been created for and applied to learners who use auditory processes which are reflected in ESL teaching approaches and tool utilization. However, not many Deaf Adult immigrant learners have access to the auditable features of some ESL tools. Participants were asked how appropriate they were and in what contexts they can be appropriately used. Data have shown that literacy practitioners do not utilize ESL tools for learners without strong foundation in first language (ASL) nor it is used to profile learner's emerging language learning and capacity. Researchers did not report that ESL related materials were used as an assessment tool for novice Deaf ASL-English bilingual learners.

Various literacy practitioners in this study reported,

"There is no ESL or similar program suitably designed for Deaf immigrants."

“Some ESL materials are too advanced for Deaf Adult Immigrants with no or little language acquisition.”

“If students have no base language, there is limited general knowledge. Most ESL materials include idiomatic language and assume general knowledge³.”

3. Non-standard Assessment Processes

Non-standard assessment processes involves nontraditional ways to support the Deaf learners' language profile which means American Sign Language, their grammatical, semantics and syntax features are used to identify language learning and to develop literacy skills. Non standard assessment process also includes ASL-English bilingual skills. Questions in this area asked what non-standard assessment processes were used for Deaf and Hard of Hearing adult immigrants.

The data show an absence of non-standard assessment processes based on research, no articulation about protocols in assessments of American Sign Language for Deaf and Hard of Hearing Adult immigrants and a need for non-standard assessment processes as the norm for Deaf and Hard of Hearing immigrant learners.

A literacy practitioner said,

“Bravo ASL! Curriculum was used to support assessment.⁴”

Another literacy practitioner said,

“ASL assessments are teacher directed, their experience was used to assess ASL skills”

Literacy practitioners did not identify any standardized assessment tools; rather they used teacher-created assessment processes for the purposes of evaluating student

³ General knowledge pertains to why and how a particular place, person or thing is used. For example, a grocery store distributes food for paying customers or going to a park to relax or play. Deaf immigrant adults sometimes do not have an understanding about the purpose of a grocery store or park

⁴ Bravo ASL! Curriculum is a multimedia resource package consisting of an instructor's guide, student workbook, and seventeen video tapes provides a comprehensive beginning-level ASL course for use by novice or experienced Deaf or hearing teachers teaching Deaf and/or hearing students. The fifteen videotaped lessons unfold around the daily life of the Bravo family, which comprises two Deaf children, a Deaf father and a hearing mother. Each lesson teaches conversational vocabulary used in real-life situations, Bravo family interactions, Deaf cultural notes, grammatical notes, and other lessons.

progress or needs. There are no data on how teacher's experience was used to guide their assessments.

Researchers responded,

Assessment of ASL Grammar

"I don't know any – we have a checklist, but not sure how it would work with adults."

Assessment of ASL Semantics

"I don't know any"

"There is ASLPI, there are several Deaf adults now being trained to rate ASL grammar and semantics which is not commercially available and they will train eligible candidates. I think this acronym spells out as follows 'American Sign Language Proficiency Inventory.'" [sic]

Some of the participants in this study suggested ASLPI (American Sign Language Proficiency Interview)⁵ as a qualification for assessment however there were no data that ASLPI was used to assess ASL literacy skills in this study.

Also, a researcher talked about American Sign Language Proficiency Assessment (ASL-PA) – a system tool to assess young student's ASL skill development.

"One of the benefits of this assessment tool are to monitor the child's progress in using ASL in order to maximize his/her language skills and to have a better idea about students' stages in ASL and the areas they need to work on in order to develop an effective instructional program in ASL based on the information collected."

ASL-PA has not been studied with Deaf immigrant adults.

⁵ www.deafculturecentre.ca

American Sign Language Proficiency Interview (ASLPI) evaluates the candidates' ASL linguistics and language proficiency levels. An interviewer follows a list of question based on the needs of a certain workplace. He/she will interview a candidate. The two individuals sit face to face. The videotaped interview lasts between 20 and 30 minutes. All interviews are aimed at providing an opportunity to assess the candidate's proficiency such as pronunciation/production, grammatical accuracy, vocabulary, fluency and comprehension. The videotape is then sent to two qualified raters. Their ratings will be averaged out and the candidate is given a number from 0 to 5 on the rating scale. If the two raters provide a very different score, then a third rater is assigned to increase the reliability of the result. A rater assesses the candidate's language proficiency level based on the aspects of ASL listed above.

Another researcher mentioned that Test of Early Reading Ability (TERA) and Test of Written Language are available.

“TERA has been normed on D/HH students so may be helpful with adults at an emerging literacy level in English. It uses environmental print and letter identification so although some items are “childish”, others would work with adults.” Yet training is required to use these assessment tools as a researcher commented, “You need to be a teacher or language specialist, or at least familiar with standardized test administration to use it”.

Another researcher reported,

“The tools I (Pre-Post Assessment Tools of Figurative Expressions) have developed are still in their early stages of development and adjustment. These have not be subjected to reliability and validity tests”



TABLE I

Participants' responses about tools for evaluative purposes were tabulated. These tools were collected in columns according to reading and writing, ASL grammar and semantics.

Tools for Learner Evaluations Identified by Instructors and Researchers

Reading	Writing	American Sign Language Grammar	American Sign Language Semantics
<ul style="list-style-type: none"> • Test of Early Reading Abilities (TERA) • Custom made Pre-Post Assessment Tools of English – ASL Translations • Custom made Pre-Post Assessment Tools of Figurative Expressions 	<ul style="list-style-type: none"> • Test of Written Language (TOWL) • Custom made Pre-Post Assessment Tools of English – ASL Translations • Custom made Pre-Post Assessment Tools of Figurative Expressions • Evaluation based on note taking skills, vocabulary tests 	<ul style="list-style-type: none"> • American Sign Language Development Checklist • American Sign Language Proficiency Inventory • Vista/Bravo curriculum to support evaluation • Teacher Directed 	<ul style="list-style-type: none"> • American Sign Language Proficiency Inventory • Vista/Bravo curriculum to support assessment • Teacher directed

4. Emerging Signed Language Literacy

Although literacy practitioners and researchers unanimously reported that ASL as first language should be cultivated prior to any bilingual teaching approach, however, literacy practitioners and researchers offered their perspectives about the strategies employed.

a. Strategies for building visual language acquisition among learners with no previous signed language

Literacy practitioners used conversations in ASL, gestures and pictures to develop concepts, their ASL skills as a model and commercially purchased tools for ASL language teaching. They wrote,

“I show the learners the images and have conversations about the images in ASL to develop a concept of what it shows. Then I would assess what they already know”

"I use ASL, gesture, pictures, acting and role playing (always switching around) to explain concepts about an image or experience...Play!...Conceptual [sic] is very important, not grammatical."

"Conversations in ASL is a teaching approach that I like the most and it is used regardless of their language milestones because it provides connection of experience to signs and print, also it transmits Deaf cultural values."

"ASL acquisition was teacher directed and no formal curriculum was utilized. However, ASL conversations were maintained throughout the students' education regardless of English proficiency."

Researchers' perspectives showed particular focus on ASL – how meaning based whole language is implemented in ASL based text productions and ASL videos for learners to study their grammatical structures.

A researcher reported the benefits of ASL based tools, videotaping ASL narratives and presentations of ASL videos,

"Expressing themselves in ASL allows students to focus on content (rather than mechanics and structure) so that the stories or descriptions are richer and more elaborate"

"Creating their own stories in ASL gives students a sense of ownership (they are expressing themselves rather than 'doing it for the teacher')"

"Exposing to quality literature in ASL lets them see how language works and they can actively figure out the rules and exceptions"

b. Strategies for building visual language acquisition among learners with an acquisition of signed language in country of origin

Data showed that instructors use similar teaching strategies for students with no previous signed language skills from country of origin.

5. Emerging Print literacy

a. Strategies for building print language acquisition among learners with no previous print literacy skills in country of origin

The strategies for acquiring English described by the participants in the study were:

“Teaching English through ASL in three steps: (1) Developing concept using ASL (2) Talk about the print language (i.e. vocabulary, grammar, meaning) in ASL and (3) Application of knowledge (writing, homework, assignments, ASL to English Interpretation tests)”

An instructor-participant reported important factors for the effectiveness of these teaching strategies,

“Never be literal about ASL concepts, always continue expand ASL knowledge and skills... Interpretation skills of teachers is very important to the bilingual framework”

“I realize that I need to continuously improve my ASL in order to teach better...to better convey concepts during ASL-English/English-ASL... Teachers need to use a variety of signing styles to accommodate learners, be able to EXPAND → know different signs for one English vocabulary.”

*“*Be Visual – incorporating technology is important – more visual for learners...use computers, camera equipment, incorporate ASL resources like DVD’s etc...”*

Another literacy practitioner reported,

“Use ASL to allow the learner to bridge to print language...it makes it easier to teach English...”

“It is important to see the print language and signs at the same time....connections must be ongoing!!”

b. Strategies for building print language acquisition among learners with print literacy skills from country of origin

Data showed similar strategies for building print language acquisition among learners with no print literacy skills from country of origin.

6. Emerging Bicultural Awareness

Bicultural awareness is an understanding and appreciation of the Deaf and non Deaf culture available in ASL, Deaf and English literatures. The literature review showed that it is still inadequately researched⁶; non-Deaf culture is a heavily debated notion in these reviews. Bicultural awareness is presupposed to help learners to understand how their Deaf culture can be valued, contested or shared through ASL and English literature.

A researcher said,

“Bicultural education should be giving Deaf and hearing students/teachers opportunities to become conscious of their unconscious Deaf and hearing ways”.

Yet, compared to emerging signed language literacy, the participants had fewer responses on bicultural awareness. Some literacy practitioners have expressed the need of improved bicultural understanding and education.

Literacy Practitioners wrote,

“Having knowledge of both Deaf and Hearing culture are important to learners”

“Understanding of cultural difference between Deaf and Hearing benefited my teaching practice.”

There were no further explanations and descriptions about how their knowledge about Deaf and non Deaf cultures were used to develop learner's bicultural awareness and how it benefited their teaching practice. Their perspectives in the data about bicultural learning are consequently limited to supplements of Deaf culture information to literatures and respecting or tolerating differences and others.

They reported,

“Bicultural education is the need to respect Deaf culture and the addition of Deaf centered resources”

Researcher's perspectives were varied. Some did not offer their perspectives, some rejected the Deaf and Non-deaf bicultural notion and others encourage its development. Thus, bicultural awareness is an area of needs to be further inquired – the relationship between literacy (and literatures) and Deaf / non-Deaf cultures remain unexplored.

A researcher wrote,

⁶ Ladd, P. (2005) Deafhood: In Search of Deaf Culture.

"Bicultural aspect basically involves orientation to/insight to similarities and differences between Deaf and Hearing ways. Students' awareness of such differences can be helpful in mitigating their frustrations attributable to their not realizing that the "hearing way is closely associated with their culture of hearing. After given it some more thought, I think people should stop trying to define Deaf persons' culture. People do not attempt to define hearing people's culture. Do you realize that underneath the persistent attempt to define Deaf biculturalism is an attempt to control it? Mind you, it will never be controlled simply because if you objectify a culture, you will miss the whole point. Professionals have been controlling Deaf person's superficialities too long. "

Another researcher reported,

"The study of ASL and English and its literature and text provides students with access to cultural values and cultural interpretations of the world. ASL (also English) and its culture link students to all aspects of themselves – affective, moral, cognitive, conceptual, experiential, perceptual, physical and social. They thus become keys to the development and the expression of both personal and collective identity; they allow both individuals and a community of individuals to express and transmit their view of reality, their thoughts, their feelings and their treasured values and priorities.



TABLE II

Table II presents the data gathered about effective teaching approaches. The teaching approaches identified are developing foundational literacy skills using ASL, simultaneously teaching ASL and print language, contact signs, gestural and picture drawing / showing of images, and conceptually inaccurate signs. Participants described and explained the teaching approaches and how it impacts language learning.

Teaching Approaches	Description / Explanation
Developing Foundational Literacy Skills Using ASL	<ul style="list-style-type: none"> • Conceptual based rather than phonetic based • Natural language of the Deaf people (Using ASL for communication and learning) • Must be part of students language learning regardless of English proficiency • "It is who I am" (Deaf literacy practitioners only provided this perspective) • Used to bridge to print language • Used to access to print language • Used in conversations with students • Transmits Deaf cultural values to students – learners are valued as linguistic minority rather than focusing on their hearing loss or residual hearing • Enables clearer connections between learners' experience to signs; signs to print – learners becomes less alienated with signed and English language and learners learn that language does not select those who can hear. • Language does not discriminate; it is the people who use language. • Utilized prior to exposure of print language • Should be continually improved and practiced by instructors and learners • Cannot be literalized into English print (ASL grammar and English print grammar are different) • Should be used with technology whenever possible (incorporate computers, smart board, videotaping, etc to teach, use and read American Sign Language)
Simultaneously Teach ASL and Print Language	<ul style="list-style-type: none"> • American Sign Language is used to explain concepts of print language shown on the whiteboard, overheads, papers and etcetera • Used to emphasize concepts and message and conceptual equivalency – the complementary meanings expressed in ASL and English print. • A concept that emerged in 1980s – short evolution compared to monolingual users⁷ • Learners are able to "keep" their natural sign language (ASL) • ASL is used for classroom instruction and curriculum delivery • Learners learn how to use their eyes
Gestural	<ul style="list-style-type: none"> • Non linguistic expressions of concepts

⁷ Bilingual Education documented in literature showed that it existed in the early 18th and 19th century (Ladd, 2003). It was replaced with artificial sign systems.

Teaching Approaches	Description / Explanation
	<ul style="list-style-type: none"> • Non linguistic basis for development of concepts • Used prior to teaching ASL or English concepts • Used if concepts cannot be understood or expressed during conversation in ASL
Drawing / Pictorials	<ul style="list-style-type: none"> • Non linguistic expressions of concepts • Non linguistic basis for development of concepts • Used prior to teaching ASL or English concepts • Used if concepts cannot be understood or expressed during conversation in ASL
Contact Signs	<ul style="list-style-type: none"> • Emphasize English grammar through sign language • Not similar to English Based Sign Systems • "In between" ASL and Sign Exact English Approaches • No "ed", "ing" included (tenses) • Not practiced by Deaf individuals involved in this study
Conceptually Inaccurate Signs (CIS)	<ul style="list-style-type: none"> • Students reads the whole sentence and then sign what it conveys rather than signing word by word • Focuses on possible sign choices for a word or concept and feedback is provided by the instructor for any sign choices that are conceptually inaccurate (signs that do not fit well with the context) • Critically examines for phonetic based signs or English patterning in ASL • Focuses on bilingual Interpretation skills; interpretations between ASL and English • Cracks the tradition of prioritizing English despite of the learners English proficiency • ASL skills must be continually practice as the learners gains English language proficiency • Provides conceptual consistency in ASL and print language • Anecdotal success provided by the instructors; improved self confidence in learners, bilingual skills and appreciation of ASL and Deaf Culture

KEY THEME: BELIEFS AND VALUES THAT IMPACT TEACHING APPROACHES AND TOOL USE

Beliefs and values and their impact on the choice of teaching approaches and tools to augment the success of learner's ASL-English language learning and bicultural awareness were identified.

1. Teaching approaches and tools to support the acquisition of ASL literacy skills for bilingual literacy skills

A belief and value that was consistently stated by participants in this study is the use of ASL to develop literacy skills for ASL-English bilingual skills. Some respondents reported that this approach should be supported and maintained through use of ASL based tools, language play in ASL and a proper ASL language models throughout the learner's acquisition of ASL and ASL-English bilingual literacy skills. To use ASL based tools effectively is a teacher skilled in ASL and English linguistic structures and knowledgeable on the use of the different forms of ASL, Deaf and English literatures.

Researchers commented on this prerequisite,

“Clearly, a teacher would need to be proficient in ASL to be most effective in teaching these kinds of bilingual methods.”

Language play is a term to illustrate the learner's empowerment with the development of concepts in ASL and thus, increases their capacity to build a solid language base for ASL-English bilingual learning. Literacy practitioners reported,

“American Sign Language is not intended to be literal; never be literal about ASL concepts. There is always different signs for a term, improving my ASL skills enhance [sic] my teaching skills therefore enhancing the learners language skills.”

“Part of teaching ASL, teachers should find ways to implement the students experience. Students always had words, signs and concepts for it but they didn't know. Teachers should always find ways to allow students to discover ASL structure narrate their experience.”

“Learners should be able to convey concepts in ASL and understand that ASL and print language are distinctive yet complementary languages. I realized that I need to continuously improve my ASL skills in order to provide various concepts in ASL so students have different signs choices to express similar concepts such as homonyms⁸.”

These beliefs and values, as reported by the participants, are essential for effective teaching approach and use of tools for bilingual learning. In summary, the participants homogenously reported developing ASL literacy skills supports bilingual literacy skills.

2. Teaching print literacy through artificial signed systems⁹

All participants do not belief and value teaching print literacy through artificial sign systems. Artificial sign systems attempts to manually reproduce the grammatical features of the phonetic based English language. Specifically, this teaching approach is based on the theory that sign language should have a conventional writing system. “Like spoken and written forms of English, sign language should have their written forms”

⁸ An example of the word ‘run’ in ASL has many different signs depending on the sentence. The sign for ‘run’ in the sentences, “The dog is running down the street.” and “The government runs the country.” are signed differently.

⁹ Unlike the sign languages that have evolved naturally in Deaf communities, which have distinct spatial structures, artificial sign systems are the invention of hearing people, and mostly follow the grammar of the spoken language — or, more precisely, of the written form of the spoken language.

is the belief and value which supports artificial sign systems. American Sign Language does not have a conventional writing system (Enns, 2006).

A literacy practitioner said,

"Teachers should avoid English patterning in American Sign Language and this should be modeled by ASL using teachers."

Another literacy practitioner wrote,

"Most of the L1 learning in country of origin uses the sound based approach which leads to some speculation that their L1 sign language skills may be weak or absent."

3. Lack of teacher education in teaching literacy to diverse learners impact development of shared beliefs and values to guide the program

Literacy practitioners reported a lack of teacher education,

"There is not a lot of exposure, information circulated about the bi-bi approach" (bilingual and bicultural Education)

"Most students, colleague and teachers have no idea about bilingual and bicultural teaching"

A researcher reported the barriers for this lack of teacher education and its impact on the use of ASL literatures and ASL literacy skills to support learner's English skills,

"The notion of bicultural and bilingual education is still too new to notice any evolution in its definition (it apparently emerged in the 1980s). Further, I do not think this definition has been allowed to be carved in stone yet. Why this? Several reasons. One is that there has been too much suppression on this approach in favor of promoting oralism; this has been going on relentlessly in many parts of North America since Alexander Graham Bell's¹⁰ days and before.

¹⁰ www.agbell.org

Alexander Graham Bell was a philanthropist and supporter of the aural verbal and oral education. According to Oral Education history on the website, www.agbell.org, "Many teachers of the deaf, speech-language pathologists and audiologists believe that children who are deaf or hard of hearing should have the opportunity to learn to listen, talk and live in mainstream society. Historically, the majority of children with hearing loss communicated through sign language or in combination with the spoken word. Bell's vision that deaf children have the ability to learn to listen and speak has only recently begun to gain widespread acceptance. Today, with the help of early diagnosis, advanced hearing technologies and early intervention, oral deaf education has proven that most

As one of other possible reasons, a vast number of professionals and entrepreneurs have vested interests in aural-oral education because there is big money in it."

KEY THEME: DIFFICULTIES IN BUILDING A BILINGUAL/BICULTURAL STRUCTURE

1. Limited time for teachers to explore best practices and research in order to improve teaching approaches

Time limitations imposed on teachers were significant in this study. These limitations were attributed to the majority of their preparation time spent on revision, creations and preparation of age and language appropriate materials, texts sensitive to Deaf cultural values, and broadening the language context for effective bilingual learning. Consequently, this reduces time to evaluate their work for its effectiveness and to explore alternative effective teaching approaches and tools.

Practitioners of Deaf literacy commented,

"Some of the tools were teacher created and their evaluation for their effectiveness is limited by time constraints."

"There are no good materials that are readily available for students with no acquisition of sign language skills; All of the tools are teacher created or modified commercially purchased materials to accommodate learners. This used up a lot of time."

"An advice I would give to beginning teacher is to prep, prep, prep and more prep to create tools for effective bilingual and bicultural Deaf adult education"

2. Researchers understand bilingual education and approaches in ways that teachers appear not to understand – gap between research and teaching practices

a. Communication competencies in ASL and English for effective bilingual teaching approaches and tools

The data revealed that there were many gaps between research and teaching practices regarding bilingual education. These gaps focused on how ASL-English bilingual education is put into practice and employed. Communication competency reflects fluency in pronunciation, basic vocabulary and grammar. For the Deaf, these competencies are available and, as all participants reported, should be developed through ASL literacy skills. Communication competencies in ASL are used to develop

children who are deaf or hard of hearing can develop language skills comparable to their hearing peers by the time they enter 1st grade."

concepts however; there were gaps between literacy practitioners and researchers on how the developments of concepts in ASL were used to support the acquisition of English literacy skills.

A literacy practitioner reported,

“Understandings of concepts are taught in ASL. Depending on students understanding of concepts in ASL, print language is introduced.”

Another literacy practitioner wrote,

“We sign ASL concepts → the learners watch, and then translate it into English and vice versa.”

Data from literacy practitioners' perspectives showed no clear guidelines on what communication competencies in ASL the learner must acquire before ASL-English bilingual teaching approaches and tools are used.

Researchers offered their perspectives on communication competencies in ASL to support the acquisition of English language,

“The more intellectual functions are developed in ASL, the more they are likely to transfer to the development of English literacy skills”

“Language and literacy learning is meaning-based, therefore, new structures must be taught in meaningful context.”

“Language skills in ASL facilitate language skills in English, only if students develop ASL skills at the cognitive/academic level of proficiency¹¹.”

“Humans are lingually versatile and adaptable; thus, they are not restricted by any one particular language. The underlying common proficiency implies that “translating” between any two languages including ASL and English involves cognitive processes much more than linguistic processes. Cognition does not depend on spoken/heard language; language depends on cognition.”

¹¹ BICS – CALP is a linguistic interdependence hypothesis (Cummins, 1999) which states that the skills developed in the first language will transfer to the second language which means the skills acquired in American Sign Language would be transferred to English as a second language. When a student demonstrates cognitive abilities in American Sign Language, it is used to support their acquisition of English as an academic language. Academic language skills require an understanding of deeper structures such as rules of language use. Academic tasks and interactions are often not based on real life situations (Enns, 2006) and this is reflected in English as an academic language in addition to its position as a second language.

TABLE III

Comparison of Tools Used by Instructors and Studied by Researchers

Instructors	Researchers
<p>English Literature</p> <ul style="list-style-type: none"> • Vocabulary Basics (Townsend Press) • Groundwork for Better Vocabulary (Townsend Press) • Building Vocabulary Skills (Townsend Press) • Steps to Improving College Reading Skills (Townsend Press) • Words for Students of English (The University of Michigan Press) • Comic and Conversations (Jag Publications) • Basic Vocabulary in Use (Cambridge University Press) • English Collocations in Use (Cambridge Press) • ESL Dictionary • The Ins and Outs of Prepositions (Barron's Press) • Oxford Picture Dictionary • Grammar Connections (Scarboro, Prentice Hall Regents Canada) • True Stories (Sandra Heyer) • Grammar Work (Prentice Hall Regents) • Images: English for Beginners (Guenther Zuren) • All New Very Easy Stories (Pearsons Longman Press) • Canada Coast to Coast 2nd Edition • Penguin Reader – East Starts • English for Everyday Activities (New Readers Press) • People Express (Carol Lipszyc) • Custom Made Reading Drills <p>ASL - English Literature</p> <ul style="list-style-type: none"> • NorQuest Reader 1 and 2 • Custom Made 2-D Sheets (Images with English Print Letters and finger spelled words) • Birds of a Different Feather & For a Decent Living (Dawn Sign Press) <p>Deaf Literature</p> <ul style="list-style-type: none"> • Movers and Shakers: Deaf People Who Changed the World (Dawn Sign Press) • Custom made Deaf Culture/Deaf Biographies • Deaf Women in Canada 	<p>English Literature</p> <ul style="list-style-type: none"> • No Data <p>Deaf Literature</p> <ul style="list-style-type: none"> • No Data <p>ASL Literature</p> <ul style="list-style-type: none"> • Videotaped ASL Narratives (Student's work and commercially purchased video) • ASL Videos

BARRIERS AND RECOMMENDATIONS

With literacy practitioners' and researchers' input, the most significant barriers and recommendations to addresses them are outlined in this section. The principal investigator and external evaluator also provided recommendations whenever possible.

TABLE IV

The tools were categorized and tabulated according to literature type: English, American Sign Language and Deaf literature. Table IV revealed with the overpopulation of English based literature at the fundamental levels at participating literacy programs.

Literatures Recommended by Literacy Practitioners and Researchers

English	Deaf	American Sign Language
<ul style="list-style-type: none"> • Challenger Series for Adult Literacy • Vocabulary Basics (Townsend Press) • Groundwork for Better Vocabulary (Townsend Press) • Building Vocabulary Skills (Townsend Press) • Steps to Improving College Reading Skills (Townsend Press) • Words for Students of English (The University of Michigan Press) • Comic and Conversations (Jag Publications) • Basic Vocabulary in Use (Cambridge University Press) • English Collocations in Use (Cambridge Press) • ESL Dictionary • The Ins and Outs of Prepositions (Barron's Press) • NorQuest Reader 1 and 2 • Oxford Picture Dictionary • Grammar Connections (Scarboro, Prentice Hall Regents Canada) • True Stories (Sandra Heyer) • Grammar Work (Prentice Hall Regents) • Images: English for Beginners (Guenther Zuren) • Custom Made 2-D Sheets (Images, Print Letters, ASL letters) • All New Very Easy Stories (Pearsons Longman Press) • Canada Coast to Coast 2nd Edition • Penguin Reader – Easy Starts • English for Everyday Activities (New Readers Press) • People Express (Carol Lipsytc) • Custom Made Reading Drills 	<ul style="list-style-type: none"> • Deaf Women in Canada • NorQuest Reader 1 and 2 • Movers and Shakers: Deaf People Who Changed the World (Dawn Sign Press) • Custom made Deaf Culture/Deaf Biographies • American Sign Language Dictionary 	<ul style="list-style-type: none"> • Conversations in American Sign Language • Videotaped ASL Narratives (Student's) • ASL Videos • Birds of a Different Feather & For a Decent Living (Dawn Sign Press) • NorQuest Reader 1 and 2 •

BARRIER #1

Lack of available resources and materials that support ASL acquisition, ASL-English bilingual skills and cultural knowledge of Deaf community

"2D sheets do not capture the movement that ASL provides; not many 3D tools are readily available."¹²

"There are some bilingual tools such as the Norquest Reader 1 and 2¹³ that is [sic] too advanced for emerging bilingual skills. There should be something similar for beginners."

Many participating programs in this study do not have many tools to support ASL acquisition, ASL-English bilingual skills and cultural knowledge of Deaf community. This lack can be addressed with a shift of focus from the current prevailing practice of modifying commercially purchased ESL resources or English literature to increased ASL based texts for language learning.

A researcher commented that,

"Exposing students to quality ASL literature lets them see how language works"

Recommendations

Literacy practitioners made recommendations these for future production of ASL based tools,

"Flash! Pro would be a good model for tool production"

"DVD to compliment the practice sheets for home study"

"More ASL based DVD's"

"Final Cut Mac Pro Software, Mac Computer, Capscribe Editor Software"

¹² 2D sheets are prints of English words with accompanying pictures, finger spelled words and ASL signs. 3D tool are representations of ASL in videotapes and other streaming sources.

¹³ (Norquest Reader is I and II is a DVD tool to help Deaf and Hard of Hearing adult literacy students who want to practice reading English text – there are two images side by side, one shows English literature and another to show the ASL version of it on the computer screen.)

Recommendation from the principal investigator and external evaluator include:

- Technology training for instructors to develop ASL based tools
- Teaching technology skills for students to study these tools.
- Increased communication between literacy practitioner and researcher on ASL text production and creation of guidelines for these productions.

BARRIER #2

Dominant audist views that shape program decisions, ranging from choice of teachers, materials, activities, assessments, curriculum sequencing and so on.

Dominant audist views are noticed on two levels in this study – systemic and classroom based. It does not imply that these views are distinctive and separated but they often involuntary influence each other. Systemic audist views occurs in the larger context as many college programs do not have many ASL based materials, research based assessments or curricula as those making program decisions at participating programs in this study (funding plan for materials, assessment and curriculum development) underestimated the importance of ASL for English literacy skills. Literacy practitioners reported that they are continually “*educating them*” and “*lobbying*” to colleagues and administrators without knowledge of Deaf literacy.

A literacy practitioner reported,

“Some educators in Deaf literacy streams feel that improving ASL skills (for both teacher and learner) is not important. English is the priority.”

Researchers reported,

“The main bias I have encountered from non-Deaf people is that you can’t be truly bilingual if you don’t speak the language, i.e. just knowing the written form is not enough.”

“I disagree that the only purpose of including ASL in educational settings is to facilitate English skills. It must be an integral part of the education plan regardless of English proficiency.”

“The bilingual education aspect implies that it is the school’s responsibilities to foster students’ enhanced understanding of the linguistics of both languages. Typically education emphasizes English and sometimes “tolerates” students’ use of ASL.”

Also, in some programs in this study, when students achieve ASL literacy skills, English print language becomes the sole focus of language development and consequently, this is reflected in the tools used, standard assessment processes and curriculum sequencing. Systemic audism consequently propagates audist views in classrooms in which print language acquisition and use dominates in the teaching approaches and draws of tools. (See Table IV).

Recommendations

Researchers conveyed the importance of life-long and multiple opportunities to practice bilingual integration into the educational system and their learning regardless of learners' achievement English language milestones. They reported,

“Bilingualism must be a goal unto itself. The goal of bilingual programs is to develop bilingual individuals, not just English users.”

“With the implementation of ASL curriculum, my definition/perspectives of bilingual-bicultural education have changed. In the past, the students acquired ASL and English in two separate monolingual processes with very little evidence of bilingual relationship between L1 & L2 skills”

The principal investigator and external evaluator recommend increased communications with other college departments (For example, ESL, Career Training and Health Services), government, funding programs, about Deaf bilinguals and ASL based texts to shift the view to a Deaf centered learning program on systemic and classroom levels.

BARRIER #3

Lack of authentic and linguistically appropriate tools for assessing learning

There is no reported data in the study that shows evidence based ASL assessment tools being used for learner ASL language profile and acquisition progress. There are checklists and evaluation tools for English writing and reading that are modified for Deaf learners.

Recommendations

The principal investigator and external evaluator recommend the development of a consortium among Deaf adult literacy programs to discuss issues, research and establish ASL and ASL-English bilingual assessment tools. Such a consortium would provide opportunities for literacy practitioners and researchers to meet and utilize their knowledge and experience to create guidelines and protocols and to develop tools to assess student's ASL-English bilingual learning.

Discussion

The case study depicted the integration of many different complex components required for effective teaching approaches and use of various tools. There are relationships cultivated and maintained on many different levels; between learners and teachers, learners and texts (ASL and English), and mediation between ASL and English languages, cultural values of Deaf and non-Deaf as well as teachers embracing cultures learners bring with them to education programs. These contributed to the complexity and uniqueness of the context of multiple cases in this study.

Despite the multiple relationships presented, literacy practitioners and researchers have had effective practices in ASL-English bilingual education for Deaf and Hard of Hearing Adult immigrants. Information from literature review has been examined to advance inquiry about their successes in this discussion. The themes identified in the data show some evidence that the language profiles of the learners needs to be examined prior to determining bilingual and bicultural teaching approaches and which tools to use. Immersive learning of American Sign Language is strongly recommended by literacy practitioners and researchers before print language is introduced. This would provide the learners with skills to acquire English.

American Sign Language as a foundation for bilingual practices is consistent with the notion of literacy as a social practice found in literature reviews. It showed that literacy is more than reading and writing components of language; it includes communicative competence, literacy becomes the ability to use appropriate language forms depending on the social context (Enns, 2006). Social contexts of Deaf adults are embedded in visual space and this is used as a means to develop proficiency in ASL and then learn translation skills and English.

The perspectives from the participants in this study broaden ideas about literacy to embrace visual and American Sign Language literacy, which is also expressed in the literature. Richard Sinartha (Kuntze, 2008) defines visual literacy as the ability to actively reconstruct past experience with incoming visual information to obtain meaning. Thus, a visually literate person is someone who can discriminate and interpret visible actions, objects, and symbols, natural or manmade (Kuntze, 2008). This supported what the data have shown – that literacy practitioners and researchers attempt to maximize visual literacy skills through the use of various ASL models, ASL literature and transitions of meanings between ASL and English. ASL should be introduced, cultivated and maintained through teacher led models and student led models (provided that they acquire a set of ASL skills).

There was a story told by an instructor who taught a sign for a verb and the students were able to expand the different signs available for a verb depending on the context. For example, ringing a doorbell in most North American homes are depicted with a verb in ASL when the Signer press a doorbell placed on the side of the door whereas in other countries ringing a doorbell means pulling a short rope of the bell sideways to ring. Students do not only learn different signs for a verb but teachers also learn. Effective

teaching approaches and tools use are, thus, enriched through the co-construction of teachers' and learners' visual literacy skills. To summarize, rather than only the commercial purchase of ASL videos or DVD, students should be able to express their visual literacy skills which would help them to understand English print, *visually and cognitively*.

Moreover, learners would have confidence and language foundation to tackle English as a phonetic based language. ASL conversations and ASL based texts reported in this study provides this opportunity. Though, the opportunity would be best supported with a well designed ASL curriculum and a clear understanding of curricula sequencing and assessment according to linguistic components of ASL benchmarks.

The benefits to learner's literacy skills are multi-folded: there would be richer data available for research and creation of Deaf adult bilingual principle, in depth understanding of how texts establish different worldviews to critically examine these potentially conflicting worldviews for Deaf bicultural awareness and improved dynamics for Adult learners. And, this would lead to improved systematic approach to implement bilingual and bicultural teaching approaches and tools for Deaf and Hard of Hearing Adult immigrants. It is time to integrate literacy to the visual world!

Conclusion

This report focuses on a study of Canadian adult literacy programs that serve Deaf and hard of hearing learners. The study was undertaken between October 2008 and August 2008. The results revealed several interesting findings. These included: ASL as a foundation to develop bilingual literacy skills for DHH Adult Immigrants, lack of standardized ASL assessment tools, gaps between literacy practitioners and researchers on strategies for ASL acquisition and ASL-English bilingual skills and absence of strategies for Deaf and non-Deaf bicultural education. As a result of the study, several participants have expressed a desire to continue to meet and create a National Deaf Adult Literacy consortium to develop collaborative efforts to improve learning for Deaf and Hard of Hearing Immigrants.

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Referential Websites:

<http://www.ccsdeaf.com/indexe.html>

<http://www.listen-up.org/oral/a-v.htm>

<http://www.agbell.org>

<http://www.deafculturecentre.ca>

Websites

List of websites where literature can be obtained.

Tools	Website Address
<ul style="list-style-type: none"> Challenger Series for Adult Literacy 	http://library.nald.ca/item/2764
<ul style="list-style-type: none"> Vocabulary Basics Groundwork for Better Vocabulary Steps to Improving College Reading Skills 	http://www.townsendpress.com/
<ul style="list-style-type: none"> Words for Students of English 	http://www.press.umich.edu/
<ul style="list-style-type: none"> Comic and Conversations 	http://www.jagpublications-esl.com/
<ul style="list-style-type: none"> Basic Vocabulary in Use English Collocations in Use 	http://www.cambridge.org/
<ul style="list-style-type: none"> The Ins and Outs of Prepositions 	http://www.barronseduc.com/
<ul style="list-style-type: none"> NorQuest Reader I and II 	http://www.norquest.ca/nqreader/index.htm
<ul style="list-style-type: none"> Grammar Connections Grammar Work 	http://www.prenticehall.com/
<ul style="list-style-type: none"> True Stories All New Very Easy Stories Penguin Reader – Easy Starts 	http://www.pearsonlongman.com/
<ul style="list-style-type: none"> English for Everyday Activities 	http://www.newreaderspress.com/
<ul style="list-style-type: none"> People Express 	http://www.oup.com/
<ul style="list-style-type: none"> Movers and Shakers: Deaf People Who Changed the World 11 Birds of a Different Feather 	http://www.dawnsign.com/
<ul style="list-style-type: none"> Deaf Women in Canada 	http://www.duvalhouse.com/

Appendices

APPENDIX A: INTERVIEW QUESTIONS WITH LITERACY PRACTITIONERS



Interview Questions

Videotaped Interview (Consent Form)

Yes No

Field Notes Recorded (Consent Form)

Yes No

Learner Profile

1. How would you describe your learner profiles?
 - Deaf / Hard of Hearing
 - Education level
 - Literacy in ASL or Foreign Sign Language?
 - Literacy in ASL / Print Language
 - English / Non-English Print

Philosophy

2. How would you describe your teaching philosophy and how it shapes your teaching approach?
 - Teaching American Sign Language Proficiency prior to print language
 - Simultaneously teach ASL proficiency and print language
 - Teaching print language using the phonetic approach / Signed Systems (SEE, SEE2)
 - A combination of these methods – If so, which ones do you find that benefits the learners the most?
3. What is your fundamental approach in teaching?
 - Are the approaches based on ASL competency?
 - Are the approaches focused on facilitation of print language?
 - What are the indicators of success employing a combined method?

Bicultural / Bilingual Framework

4. How do you define bicultural and bilingual framework? What are the key elements of such framework that shapes your teaching practice?
5. How has your definition evolved through research and/or teaching experience?
6. What would you like to include to the bicultural/bilingual framework?
7. Which aspects of your teaching practice and/or teaching practice benefited from the bicultural and bilingual framework? How?
8. What are the cultural assumptions / perspective / bias on bicultural and bilingual definitions?
 - This questions includes your conversations with other Deaf and non Deaf colleagues
9. What is the current paradigm employed by your colleagues, instructors and the wider society about Deaf Immigrant education?
 - Do they correspond with your existing teaching philosophy?
 - How does it support or impact your work?

If not,

10. How do you shape a paradigm shift in perceptions and expectations of the Deaf student by colleagues, teachers and the wider society?

Techniques and Tools

Preference

11. Which techniques and tools are commonly used in classrooms?
12. Which techniques and tools do you like the most?
13. How were they effective in helping the students learn ASL and print?
14. Which techniques and tools do you least like?
 - How did they not help the students learn ASL and print?
15. Is there a specific techniques or tools that you would utilize for a particular situation or learner profile?
16. How would you rate the techniques and tools you utilized?

Selection and Implementation

17. Is there a criteria that helps you to select your techniques and tools?
18. How are they evaluated for their effectiveness?
19. What techniques and tools do you wish to develop? How would you like to develop it?
 - Guiding framework
 - Model
20. Which techniques and tools do you want to test for its effectiveness?
 - Which of these items have you developed?
 - Which techniques and tools do you wish to modify with the learners feedback?
 - How are the students involved in the feedback process?
 - Would you be interested to obtain feedback from Bow Valley College learners?
21. Which techniques and tools would you like to test through a structured research process?

Specifications of Tools and Techniques

22. Which techniques and tools are
 - Teacher created?
 - Commercially purchased?
23. Which of these techniques and tools that specifically address base language development (ASL), transitions to print language or print?
24. Are there any techniques and tools that assist students how ASL can facilitate print through empowerment? (Successful models of critical pedagogy?)
25. Are there any specific prerequisite (i.e. qualifications or training) to use any of your techniques and tools?
26. Is there any equipment or supplementary requirements to use your techniques or tools effectively?

Other Important Questions

27. What qualities or experience do students possess that helps them succeed in bi-bi frameworks?

28. What advice would you give to beginning teachers?

Are there any important questions

APPENDIX B: SURVEY QUESTIONS FOR RESEARCHERS IN DEAF EDUCATION



Survey Questions for Researchers in Deaf Education

Thank you very much for participating in this research project. The purposes of the study are two folded – to increase knowledge of effective teaching and learning tools and approaches in Bilingual and Bicultural Education, particularly for Deaf Adult Immigrants and to cultivate a resources pool of these tools and reflect teaching approaches. There are two ways to collect data in the study; on site interviews with Deaf Literacy Educators and researchers in the Deaf literacy field. The data will be analyzed qualitatively to identify patterns, gaps and themes.

As part of the study, you, as the researcher in Deaf education, will have the opportunity to talk about your line of research in the survey. Your responses will provide opportunities for potential collaborations to improve literacy of Deaf Adult Immigrants through the cultivation of novel tools, modifying existing tools or reflecting teaching approaches that arise. Yet, to ensure that you can respond to the survey questions to the best of your ability, there are terminologies that are predefined.

Tools are defined as electronic devices (DVD, videotapes, etc) and manipulatives (blocks, cards etc) that are utilized in strategies to facilitate the acquisition of language, either American Sign Language or print. Moreover, tools can include aids to support student to interpret American Sign Language to print and vice versa. Approaches pertain to the theoretical and philosophical stance utilizing these tools.

Received:

Consent Form:

Yes No

Survey Questions:

Yes No

Sincerely,

Brent David Novodvorski

bnovodvorski@bowvalleycollege.ca



Research Profiling

Identities are confidential.

Final report is available upon request.

Please type your response below the questions. Save regularly. Upon completion, please e-mail to bnovodvorski@bowvalleycollege.ca.

Please submit prior to **May 31st, 2008**.

Name:

Affiliation(s):

1. Describe your line of research. What are your main focuses?
2. If you are conducting research in the area of Deaf Literacy, what tools are you studying?
3. What philosophical stance shaped your line of research?
4. Please check the learner profile(s) in your research.
 - Deaf and Hard of Hearing – K-12 Grade Level
 - Deaf and Hard of Hearing Deaf Adults (non-Immigrants)
 - Deaf and Hard of Hearing – Deaf Adult Immigrant Learners with some sign language proficiency from their country of origin but have not learn ASL and English print.
 - Deaf and Hard of Hearing – Deaf Adult Immigrant Learners with no language proficiency from their country of origin, ASL and English print.
 - Deaf and Hard of Hearing Adult Learners with some sign language proficiency from their country of origin, ASL and English print.
 - Deaf and Hard of Hearing Adult Learners with some spoken / print language proficiency but no sign language from their country of origin. (Oral learners)
 - Other? (Please describe)
5. List two to three tools that benefited Deaf learners in your research? Other research? In what ways they benefited the Deaf learners?
Tools
Benefits
6. Are these tools commercially available?
7. Are there any prerequisites for the utilization of tools? (I.e. ASL proficiency, courses, certifications, etc)

Bicultural and Bilingual

1. What is your current definition of bicultural and bilingual education?
2. How has your definition of bicultural and bilingual education evolved throughout your experiences?
3. What are the cultural assumptions / perspectives / bias on bicultural and bilingual definitions held by Deaf and Non-Deaf individuals?
4. How has your current definition of bicultural and bilingual Education shaped your research and teaching approach?
5. What qualities or experience in your research do students possess that helps them succeed in bicultural and bilingual frameworks?

Expanding the Research

1. Can your research findings be extrapolated to Deaf Adult immigrants with limited formal language structures from their country of origin (including sign and spoken language)? Why? Why not?
2. Are you interested in a partnership with Bow Valley College to cultivate tools for Bilingual and Bicultural Deaf Immigrant Education?
3. Are you interested in a partnership with Bow Valley College to pilot the effectiveness of tools from your research in bilingual and bicultural Deaf Immigrant Education?

Assessment

1. Are there any assessments you would suggest for Deaf Adult Immigrant Learners in Bicultural and Bilingual education?
 - Assessments for Reading
 - Assessments for Writing
 - Assessment for ASL Grammar
 - Assessment for ASL Semantics
2. Are there any prerequisites to use the assessments? Are they commercially available?

Other Questions

1. Are there any important questions that you felt that were left out?

APPENDIX C: SCRIPT

Dear (name of person),

Thank you very much.

As per your consent, I would need your help to prepare the students for the classroom observation. Please refer to the following script:

Brent David Novodvorski is a researcher and instructor from Bow Valley College in Calgary, Alberta, Canada. Bow Valley College has a similar program and students. The reason for the classroom observations is not to assess the learning but to observe the tools and techniques being used in the classroom that facilitates language learning. Brent will be writing field notes and the instructor will have a copy of the notes. The research project will further and explore the knowledge of Deaf Immigrant Literacy.

Cheers,

Brent David Novodvorski