Functional Literacy

AOTA Community of Practice on Literacy
Lisa Johnson, OTRL, OTD
Co-facilitator
Contributing Authors/CoP members

- Tammy Bruegger, OTD, OTRL
- Paula Costello, OTD, OTRL
- Leslie Hardman, OTD, OTRL
- Denise Henderson, OTD, OTRL
- Dee Steinbach, M.S. Ed, OTRL
- Amanda Frias, M.S., OTRL
What drew you to this presentation?

Are there literacy challenges that you see in your daily practice?

Do you feel equipped to address literacy challenges in your practice?
Objectives

Define
Define literacy and functional literacy

Explore
Explore literacy as an occupation and examine whether it fits within the occupational therapy scope of practice

Brainstorm
Brainstorm how functional literacy principles and strategies can be embedded in your practice across the lifespan
Paradigm Shift

Traditional view of literacy
- Performance skills
- Bottom up
- Reading/Writing

Functional view of literacy
- Occupations
- Top down
- Participation and engagement
Introduction

Low literacy may lead to limited accessibility of community resources and infrastructures

Poor literacy may lead to occupational deprivation.

As OT’s, we do not develop reading abilities

We do promote literacy skills that promote occupational participation.
Community of Practice (CoP): is a group of people who share common concern or a passion for something they do and want to know how to do it better so they interact regularly (Wenger, Trayner & deLaat, 2011)

Began in January 2017 under leadership of Sandra Schekind and Lenin Grajo

26 members from across America met monthly via teleconferencing to explore OT role in Literacy

Currently, around 16 members still involved. Accomplishments include publications, presentations at AOTA and state conferences, invitation to join the discussion with the Clinton foundation “Too Small to Fail”

https://www.pbs.org/newshour/show/when-a-laundromat-becomes-a-library
What is Literacy

National Assessment of Adult Literacy (NAAL), (White & McCloskey)

• Literacy as task based and skills based
  1. Basic reading skills
  2. Language skills
  3. Text search skills
  4. Computation identification skills
  5. Computation performance skills
  6. Inferential skills
  7. Application skills
Is Literacy an Occupation?

- Occupation is defined as Meaningful everyday activities that people do individually, in families and with communities to occupy time and bring meaning and purpose to life. Occupations include things people need to and want to do and are expected to do. (AOTA, 2014)
Functional Literacy

**Defined**

- “The ability to interpret common written material needed to effectively carry out basic daily life skills, particularly in meaningful occupations and social roles.” (Grajo & Gutman, 2019)

- “The ability to decode, process and use written information needed to perform self care and to be independent in communities.” (Grajo & Gutman, 2019)

- Functional Cognition: Thinking and processing skills to accomplish common everyday activities such as home/financial management, work, school, volunteer roles, driving and community navigation (AOTA, 2016)
Literacy and the OTPF
AOTA Literacy CoP Concept Map
Concept Map

Occupational Connections

What areas of occupation connect to literacy?

- Education
- ADLs
- IADLs
- Play
- Leisure
- Social Participation
- Work
Concept Map

OT Roles in Literacy
# Populations and settings

<table>
<thead>
<tr>
<th>Populations</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Early Intervention</td>
<td>• Family Practice</td>
</tr>
<tr>
<td>• Homeless Population</td>
<td>• Public Health</td>
</tr>
<tr>
<td>• Severe Mental Illness</td>
<td>• Higher</td>
</tr>
<tr>
<td>• Adults with Developmental Delays</td>
<td>Education</td>
</tr>
<tr>
<td>• Schools</td>
<td>• Hospital based</td>
</tr>
<tr>
<td>• Community based</td>
<td>• SNF</td>
</tr>
<tr>
<td>• English as a second language</td>
<td>• Private Practice</td>
</tr>
<tr>
<td></td>
<td>• Criminal Justice</td>
</tr>
</tbody>
</table>
What client factors and skills are required for Literacy?

Language and hearing: auditory processing, phonological skills, communication skills

Vision: motor and perceptual

Motor: fine and gross

Cognition: Memory, Comprehension, Executive Function, Meta-cognition

Sensory processing, awareness

Concept Map

Client factors related to Literacy
Why has Literacy become a Hot Topic for OT?

1. MEET STATE AND FEDERAL DEMANDS
2. OCCUPATIONAL JUSTICE
3. IMPROVE HEALTH AND WELLNESS
4. FOSTER SOCIAL CONNECTEDNESS
36 million adults in the US cannot read, write or do basic math above a third-grade level (ProLiteracy, 2019)

CDC Health Literacy Plan (2016)

“Goal 1: Develop and disseminate health and safety information that is accurate, accessible and actionable”

Healthy People 2030: Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all. Create social, physical, and economic environments that promote attaining full potential for health and well-being for all.

State Identified Measure Result (SIMR): Michigan’s goal for improving the quality of services for children with disabilities. Michigan’s emphasis continues to be on early literacy Michigan Emphasis
Theme 2: Occupational Justice

Keefe and Copen (2011) - Literacy is a human right

Fundamental part of the human experience. Central to human interaction. Leads to empowerment. Collective responsibility of all individuals in a community.

Townsend & Wilcox, 2004: Occupational Justice - all humans have innate biological and psychological need to be involved in meaningful activity that supports desired social roles and connection to others.

In the current Western society, low literacy lead to marginalization of people to social fringes where existence is not dependent on some level of literacy (homelessness, unemployment, underemployment, institutionalization, education drop out or failure). Caste system (Grajo & Gutman, 2019)

Erroneous assumptions that people need specific "readiness" skills in order to begin experimenting with writing serve to limit early attempts at exploration (Hanser, 2006)
Occupational Justice

- Literacy as a human right
- Collective responsibility to make society literate
- Access to Literacy
- Universal Design
- Promotes safety, access to communities and contexts
- Promotes exchange of information to access the world

How do we define Literacy from an Occupational Justice Perspective?
1. Do not leave the need for other professionals.

2. Assess barriers to occupations

3. Identify intervention strategies through adaptation, compensation, and remediation.

4. Assistive technology

5. Partner with community infrastructure (e.g., banks, pharmacy, grocery stores, transportation).

6. Identify family, school and community resources, collaborate with colleagues
Theme 3: Health facilitation, well being and adaptive capacity

Clients with low literacy have lower health outcomes

Common intervention use pictographs, booklets and videos leads to increased knowledge about health outcomes.

**Problem:** Does not take into account varying literacy levels or the effects of literacy barriers on community participation.
Health Disparity
Call to Action

There is a need for OT’s to address literacy and determine whether it impacts community participation.

Healthy people 2030: is the achievement of health and well-being through the elimination of health disparities, the achievement of health equity, and the attainment of health literacy.

Call to Action: Eliminating health disparities by facilitating clients’ health literacy and addressing functional literacy.
Strategies

• Occupation and Participation Approach to Reading Intervention (Grajo & Candler, 2016)
• Develop the literacy strategies of adaptation, compensation, and remediation.
Adaptation Strategies

To reduce the amount of screen/page words to enhance visual attention and organization

Magnifiers to increase readability

Replacing or coding words with pictographs and photos that enhance learning and comprehension

Using tactile aids and colored highlighting to increase visual attention to important details

Teaching clients to take structured breaks to reduce cognitive overload. (Grajo & Gutman, 2019)
Compensation strategy

- Using mnemonics to assist memory and voice activated technology to interpret unfamiliar words and obtain needed information. (Grajo and Gutman, 2019)
Practice of real-life occupations requiring functional literacy skills, such as:

- Check writing
- Bill paying
- ATM machine use
- Transportation schedule interpretation
- Meal preparation using package directions
- Medication label interpretation
- Written job application submission. (Grajo & Gutman 2019)
OT questions to guide practice

“What strategies and tools does the client use to overcome literacy challenges?”

“Are the client’s strategies and tools effective?”

“How can I facilitate the development of new tools and strategies that may be more effective?”
Theme 4: Social connection, Social participation, Community belonging

Social learning perspective—literacy skills are learned in the context of social activities and relationships.

Functional literacy as a co-occupation between clients and their important others.
Examples of social based functional literacy

- Send text messages and emails
- Read and post on social media platforms, such as Twitter, Facebook, and Instagram
- Send and receive letters and greeting cards
- Leave notes and reminder post-its for others to complete needed tasks
- Check and record social events and activities on one’s calendar or planner
- Create a profile on an online dating site
- Navigate video conferencing platforms, such as Skype or FaceTime. (Grajo & Gutman, 2019)
Recap

**Functional literacy** looks at how people use written communication in their everyday activities.

It is embedded in every **occupation** and necessary for **participation, health and well being** and **social participation** and **connection**.

It influences our clients across the lifespan and in every treatment setting.

Using an **Occupational Participation** approach, literacy challenges can be addressed through compensation, adaptation and remediation.
Other Types of Literacy

Digital Literacy: The ability to communicate, understand and navigate computer use safely and efficiently for the purpose to gain and share information. (USdigital literacy 2018)

Informational Literacy: The ability to locate, evaluate and to effectively use that information to address a issue or problem. (Commonsense.org 2019)
Other Types of Literacy

**Family Literacy** - addresses the intergenerational nature of literacy. Home literacy building activities that provide opportunities for young children, while enhancing the literacy needs for all family members. ([US Department of Education](https://www.ed.gov))

**Financial Literacy**: the ability to manage your money. The ability to manage your income, know where and how to invest money and how to save. Addresses deficits such as impulsivity, organization, memory. (Gaskins, Haynes and Porcello, 2017).
Health Literacy

Definition: The degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.

It is more than just reading health information. It includes:

- Finding information and services
- Communicating needs and preference
- Interpreting the meaning and usefulness of information
- Understanding choices, options and consequences
Health Literacy Statistics

Patient-client relationship influences health literacy

People with increased health risks have reduced health literacy

12% of adults have proficient health literacy

Almost 50% of adults who do not graduate high school have below basic health literacy

People with lower health literacy tend to get their information from the radio or TV
Progression

- Poor health literacy
- Challenges using and interpreting health information
- Poor adherence to recommendations
- Poor health outcomes
Health Literacy

Assessment tool: Realm Health Literacy Test
Intervention: Remediation: Slow down and education
Compensation and Prevention: Improve patient provider education
Simplify information on handouts, infographics
Teach-back method
E-health technology to keep track of information
Plain Language guide
Health, activities, materials, tasks example of an activity analysis
Are your handouts easily understood? Put them through the readability formula test
Functional Literacy Across the Lifespan

**Children**
- Coloring/handwriting
- Communication needs/wants
- Academic learning
- Playing games
- Developing relationships
- Expressing emotions
- Keyboarding
- Understanding rules
- Reading
- Understanding technology

**Adolescent**
- Job applications
- Reading assembly directions
- Driving
- Reading maps
- Product labels
- Bus schedules
- Game scoreboards
- Videogame instructions

**Adults**
- Face book
- Medication management
- Financial management
- Home exercise instructions
- Daily planner/memory logs
Pre-literacy
Pediatric Ideas

- Meaningful communication for the child with story telling about his day
- Pair words with pictures to label areas in room to increase exposure to print
- Tactile input with letters with pairing with sound
- Incorporate movement such as therapy ball and swing with letters
- Letter bean bags when on the swing
- Cut out word bank and glue on paper to write about a picture
More Pre-Literacy Pediatric Ideas

- **Shared Reading on iPad with Digital Book with Text to Speech by Swiping or Point to an Arrow to Turn the Page**
- **Low Tech Communication-Such as Yes/No, Low Tech ?? to Point to Pictures for Visual Schedule and Transitions**
- **Object Book Related to Book for Multisensory Approach**
- **3-D Learning Activities**
- **Cause and Effect Apps**
<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Type sight words on IPAD screen</td>
</tr>
<tr>
<td>Pair</td>
<td>Pair sight words with pictures and actions for verbs. Work on meaning of words</td>
</tr>
<tr>
<td>Have</td>
<td>Have the child draw or write out HEP for the week</td>
</tr>
<tr>
<td>Make</td>
<td>Make shopping lists and go shopping, Read recipes and cook together</td>
</tr>
<tr>
<td>Use</td>
<td>Use pictures in place of written text</td>
</tr>
<tr>
<td>Read and write</td>
<td>Read and write stories to animals, without focusing on the quality of the printing</td>
</tr>
<tr>
<td>Fill in</td>
<td>Fill in the blank sentence with a picture</td>
</tr>
</tbody>
</table>
Using Technology to Support Pediatric Literacy

- Take photo of the child doing his or her favorite things. Use to low tech picture symbols to write an opinion (I am, I like, I don’t like). Use with Clicker Connect (https://www.cricksoft.com/us/clicker/ipad/clicker-connect)

- Touch Chat- (https://touchchatapp.p.com/) - low tech communication with core language for communication and writing on an IPAD

- Allilipad (https://appytherapy.com/abilipad/)

- IPAD-Pictello (https://www.assistiveware.com/products/pictello),

- Choose it maker 3 (https://www.helpkidzlearn.com/shop/online-software/chooseit-maker-3) to design questions about the books using picture symbols paired with words

- Tarheel Reader (https://tarheelreader.org/)

- Clicker Books

Inclusive Reading books on IPAD using text to speech output for shared reading
Examples of Possible OT Intervention for Adults

TRAINING IN:
- EMAILS, TEXT MESSAGES, VIDEO CALLING
- ONLINE SUPPORT GROUPS
- ONLINE DATING ROOMS AND CHAT ROOMS
Infographics

"A picture is worth 1000 words..."

Definition: data or information that has been synthesized, visually translated and is presented in a way that tells a story

65% of all people are visual learners

Quantitative in nature, story based information designed to spur action

Based on evidence

Delivered digitally

Is not a poster or flyer
Examples and Resources

- ACRL Visual Literacy Competency Standards for Higher Education
- *Stunning Child Literacy Stats Infographic
- 10 Steps To Designing An Amazing Infographic
- Piktochart
- Canva
- * SeekFreaks examples
Why would OT be interested in Literacy

• “To achieve literacy, there must be reading. To achieve reading, it must be meaningful. To achieve meaningfulness, there must be communication. To achieve communication, there must be experience. To achieve experience, there must be opportunity. To achieve opportunity, there must be care and understanding.”

(National Center for Deaf-Blindness, Hinzman, n.d.)
Conclusion

Functional Literacy is “The ability to interpret common written material needed to effectively carryout basic daily life skills, particularly in meaningful occupations and social roles.” (Grajo & Gutman, 2019)

If we consider literacy as an occupation, how do you clients literacy levels influence their occupational participation outcomes, and their health and wellness?

Do your clients have effective strategies or tools to overcome their literacy challenges?

Are there simple adaptation, compensation and remediation strategies that you can incorporate into your treatment sessions?
Call to Action

Promote engagement in reading and writing
Adapt environments to increase literacy participation
Foster social connections
Continue to address performance skills needed for reading and writing

Keep health literacy on your radar, through education and infographics
Facilitate habits, patterns and routines that promote engagement with literacy through remediation, compensation and adaptation
Be an ambassador for occupational justice when you encounter occupational deprivation due to poor literacy
Questions

If you have specific questions regarding OT’s role in literacy, or you are interested in developing a Michigan based CoP on Literacy, you can contact me at:

Lisa.johnson@Findlay.edu
Resources

- Health Literacy
  - 1. REALM Health Literacy Test/Short Assessment of Health Literacy (I've attached link below)
  - 2. Pepper (this is actually a reading assessment for low vision-not EXACTLY what you might be looking for, but related.
    - https://www.lowvisionsimulators.com/products/pepper-vsrt
- Below are some other resources:
  - https://www.newreaderspress.com/read
  - https://www.hsph.harvard.edu/
  - healthliteracy/adult-literacy-population-assessments/
  - https://www.air.org/project/national-assessment-adult-literacy
References


• Health literacy Tool shed (2019). Retrieved from https://healthliteracy.bu.edu/


• Hinzman (n.d.). National Center for Deaf-Blindness.

References