



## Using System of Least Prompts to Teach Functional Digital Literacy Skills

**Objective:** To teach students to send emails, receive emails, bookmark webpages, access bookmarked webpages, and use cloud storage to upload and download documents.

### Setting and Materials

**Setting:** High school special education classroom

**Materials:**

- Desktop or laptop computer
- Gmail accounts for emailing
- Diigo accounts for social bookmarking
- Dropbox accounts for cloud storage
- Index cards with user names and passwords for account access

### Content Taught

Teach students digital literacy skills involving emailing, bookmarking webpages, and using cloud storage by following a task analysis and using system of least prompts.

### Teaching Procedures

- Initial instruction (30 minutes)
  - Present steps of the task analysis with screenshots
  - Describe process of each task at least three times
    - Teach functional digital literacy skills in the following order: email, bookmarking, cloud storage
- Guided practice (part 1): Teach Emailing
  - Allow students 10 seconds to initiate the first step in the task analysis following the initial prompt (e.g., “Check your email, bookmark a job-related webpage, or save a file to Dropbox/access a file on Dropbox”)
    - Teachers/peer tutors can provide assistance if the student does not complete the steps in the allotted time)
  - Allow students 30 seconds to complete each step
    - Teachers/peer tutors can provide assistance if the student does not complete the steps in the allotted time
  - Assistance will include supporting students using a system of least prompts:
    - verbal prompt
    - gesture (e.g., point to the login box)
    - gesture plus verbal explanation
    - modeling plus verbal explanation (e.g., model the correct response)

- physical assistance plus verbal explanation (e.g., using hand-over-hand to complete the step)
- Task analysis for Emailing:
  - Sign in:
    1. Click Gmail
    2. Type login
    3. Type password
    4. Click sign in
    5. Click email
    6. Click "Reply"
    7. Compose message "answering teacher question"
    8. Click "Send"
  - Send email:
    9. Click "Compose"
    10. Type email address
    11. Type subject
    12. Type message
    13. Click "Send"
  - Guided practice (part 2): Teach Bookmarking Webpages
- Allow students 5 minutes to review and find at least one job-related website to bookmark
- Allow students 10 seconds initiate the first step in the task analysis following the initial prompt (e.g., "Bookmark a job-related webpage") \*Time begins when the students have decided on a page (5 min are provided to decide)
  - Teachers/peer tutors can provide assistance if the student does not complete the steps in the allotted time
- Allow students 30 seconds to complete each step
  - Teachers/peer tutors can provide assistance if the student does not complete the steps in the allotted time
- Assistance will include supporting students using a system of least prompts:
  - verbal prompt
  - gesture (e.g., point to the login box)
  - gesture plus verbal explanation
  - modeling plus verbal explanation (e.g., model the correct response)
  - physical assistance plus verbal explanation (e.g., using hand-over-hand to complete the step)
- Task analysis for Bookmarking:
  - Save Bookmark
    1. Find page to bookmark
    2. Click Diigo on toolbar
    3. Click sign in
    4. Click username
    5. Click password
    6. Click bookmark

- 7. Click save bookmark
- Access bookmarks
  - 8. Click Diigo
  - 9. Click “My Library”
  - 10. Click on saved bookmark
- Guided practice (part 3): Teach Uploading/Downloading Files Using Cloud Storage
  - Allow students 10 seconds to initiate the first step in the task analysis following the initial prompt (e.g., “Save a file to Dropbox/access a file on Dropbox”)
    - Teachers/peer tutors can provide assistance if the student does not complete the steps in the allotted time)
  - Allow students 30 seconds to complete each step
    - Teachers/peer tutors can provide assistance if the student does not complete the steps in the allotted time
  - Assistance will include supporting students using a system of least prompts:
    - verbal prompt
    - gesture (e.g., point to the login box)
    - gesture plus verbal explanation
    - modeling plus verbal explanation (e.g., model the correct response)
    - physical assistance plus verbal explanation (e.g., using hand-over-hand to complete the step)
  - Task analysis for using cloud storage:
    - Sign in
      - 1. Click Dropbox
      - 2. Type email
      - 3. Type password
      - 4. Click sign in
    - Download document
      - 5. Click folder “Class”
      - 6. Click document
      - 7. Click open
      - 8. Respond to teacher questions
      - 9. Click save icon
      - 10. Click “Save As”
      - 11. Click “Yes” to replace the existing file
    - Upload document
      - 12. Click upload icon
      - 13. Click choose files
      - 14. Scroll Desktop to find document
      - 15. Click on document
      - 16. Click open
      - 17. Click done

## Evaluation

Student has mastered digital literacy skills when the task analysis can be followed with 100% accuracy for three consecutive sessions. (See Appendix A for a sample data sheets)

### Lesson Plan Based on:

Cihak, D. F., Wright, R., Smith, C. C., McMahon, D., Kraiss, K. (2015). Incorporating functional digital literacy skills as part of the curriculum for high school students with intellectual disability. *Education and Training in Autism and Developmental Disabilities, 50*, 155-171. Retrieved from: <http://www.jstor.org.librarylink.uncc.edu/stable/24827532>

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Appendix A: Task Analysis for Emailing, Bookmarking, and Using Cloud Storage

Student name:	Digital Literacy Skill: Emailing							
	Mastery: Complete all components of the task analysis with 100% accuracy for 3 consecutive trials.							
Date: →								
<b>Sign in:</b>								
1. Click Gmail								
2. Type login								
3. Type password								
4. Click sign in								
5. Click email								
6. Click "Reply"								
7. Compose message "answering teacher question"								
8. Click "Send"								
<b>Send email:</b>								
9. Click "Compose"								
10. Type email address								
11. Type subject								
12. Type message								
13. Click "Send"								
% Independently Correct: →	/13	/13	/13	/13	/13	/13	/13	/13
<b>Key:</b> <b>I</b> = Independent <b>G</b> = Gesture <b>VP</b> = Verbal Prompt <b>VG</b> = Verbal Prompt + Gesture <b>MV</b> = Modeling + Verbal Prompt <b>PV</b> = Physical Assistance + Verbal Prompt								

Student name:	Digital Literacy Skill: Bookmarking							
	Mastery: Complete all components of the task analysis with 100% accuracy for 3 consecutive trials.							
Date: →								
<b>Save Bookmark:</b>								
1. Find page to bookmark								
2. Click Diigo on toolbar								
3. Click sign in								
4. Click username								
5. Click password								
6. Click bookmark								
7. Click save bookmark								
<b>Access bookmarks:</b>								
8. Click Diigo								
9. Click "My Library"								
10. Click on saved bookmark								
% Independently Correct: →	/10	/10	/10	/10	/10	/10	/10	/10
<b>Key:</b>								
<b>I</b> = Independent <b>G</b> = Gesture <b>VP</b> = Verbal Prompt <b>VG</b> = Verbal Prompt + Gesture <b>MV</b> = Modeling + Verbal Prompt <b>PV</b> = Physical Assistance + Verbal Prompt								

Student name:	Digital Literacy Skill: Using Cloud Storage							
	Mastery: Complete all components of the task analysis with 100% accuracy for 3 consecutive trials.							
Date: →								
<b>Save Bookmark:</b>								
<b>Sign in:</b>								
1. Click Dropbox								
2. Type email								
3. Type password								
4. Click sign in								
<b>Download document:</b>								
5. Click folder "Class"								
6. Click document								
7. Click open								
8. Respond to teacher questions								
9. Click save icon								
10. Click "Save As"								
11. Click "Yes" to replace the existing file								
<b>Upload document:</b>								
12. Click upload icon								
13. Click choose files								
14. Scroll Desktop to find document								
15. Click on document								
16. Click open								
17. Click done								
% Independently Correct: →	/17	/17	/17	/17	/17	/17	/17	/17
<b>Key:</b>								
<b>I</b> = Independent <b>G</b> = Gesture <b>VP</b> = Verbal Prompt <b>VG</b> = Verbal Prompt + Gesture <b>MV</b> = Modeling + Verbal Prompt <b>PV</b> = Physical Assistance + Verbal Prompt								