



Assessing and Building Digital Literacy Skills for Low-skilled Adults

A Practical Approach

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Original Idea

- Purpose
 - Develop basic computer literacy
 - Demonstrate competency
 - Create a credential to assist in job search
- Target audience
 - Adults with very low literacy level
 - Displaced workers without computer skills
 - Need skills for ABE, career certificates, etc.



Three Phases

1. Develop standards (not curriculum)
2. Create an online assessment, certification
3. Market to employers, public



Collaboration

- Saint Paul Community Literacy Consortium
- Libraries: St. Paul, Ramsey Co., Metro State
- ABE: St. Paul, Roseville
- State agencies: MDE, DEED
- Community based organizations



Phase One: Standards Complete

- Five modules
 1. Basic Computer Use
 2. World Wide Web
 3. Using Windows 7
 4. Using Email
 5. Microsoft Word
- <http://spclc.org/programs/digital-literacy-standards>



Phase Two: Assessment

- Funding: LSTA, Otto Bremer Foundation
- Process
 - Team: Tom, Jen, Jennifer, Michael
 - Timeline
 - Two oversight groups
 - Task Force – technical review
 - Community Advisory Group
 - One support
 - CTEP Civic Engagement Project



Where we are

- Four modules completed and in pilot phase
- 5th module piloting to begin next week
- Plans in place for Mac OS X standards and assessment module
- Plans for Spanish translation
- Beginning to design marketing campaign and employer outreach



How this will work

- Assessment will live on the web
- Proctor sites will offer the certificates
- Various measures in place to assure integrity of certificate

Student Assessment Report

FOURTHSTAR DIGITAL LITERACY ASSESSMENT RESULTS



Module 4: Using Email

Score: 54.9 %

Not a Passing Score

2011-10-26
10:32 am
Record: 000359
Code: 77BEB3

Correct (28 questions out of 45)

MASTERED EMAIL SKILLS

- ✓ Log into email.
- ✓ Address an email and create an email message. Then, Send an email.
- ✓ Forward an email.
- ✓ Add an attachment to an email.
- ✓ Be selective and cautious about forwarding email to large groups of people.
- ✓ Sign out of email.

Incorrect: (17 questions out of 45)

EMAIL SKILLS TO IMPROVE

- ✗ Define email.
- ✗ Tell the difference between a URL and an email address.
- ✗ Register for a new email account.
- ✗ Open an email and reply to all.
- ✗ Open an attachment in an email.
- ✗ Delete an email and retrieve an email from the trash.
- ✗ Understand basics of email etiquette.
- ✗ Use caution when opening an email from an unfamiliar source.
- ✗ Avoid giving out personal information to unfamiliar people.
- ✗ Identify and delete junk mail, including spam.
- ✗ Define computer virus.

Student Certificate Prototype

Northstar Digital Literacy Standards

CERTIFICATE OF COMPLETION

Awarded to
Michael Graif

for successfully completing
Module 3: Windows 7

NORTHSTAR
DIGITAL LITERACY ASSESSMENT

Verification Code: 751ECD

March 09, 2012

Date

Rondo Community Library

Workforce Center

Features of the Assessment



NORTHSTAR
DIGITAL LITERACY ASSESSMENT



*Module 1: Basic
Computer Use*

Number of Questions: 40

START

Module 1: Basic Computer Use

The image shows a software interface for a digital literacy assessment. At the top, there is a header with the 'NORTHSTAR DIGITAL LITERACY ASSESSMENT' logo. Below this, a large yellow folder icon contains a computer monitor. To the right of the icon, the text 'Module 1: Basic Computer Use' is written in a purple, cursive font. Below the title, 'Number of Questions: 40' is displayed in a bold, black, sans-serif font. In the bottom right corner, there is a prominent green circular button with the word 'START' in white, bold, uppercase letters, and a white hand cursor icon pointing at it. At the bottom left, a smaller version of the folder icon and the text 'Module 1: Basic Computer Use' are visible, suggesting a breadcrumb or navigation element. The background of the interface is white with a light blue border at the top and bottom, featuring a subtle pattern of computer-related icons.



Geared for Low-level Users

- **Design Goal:** Develop an accessible template that is easily navigable and usable for the target audience.
 - Orientation video [demo]
 - Next button
- **Content Goal:** Write questions that are appropriate and accessible to low literacy adults using simplified language and direction lines and active voice.
 - Example 1: Module 3, question 13
 - Example 2: Module 4, question 28
 - Establishing a “target audience”



Created as an Interactive Assessment

- **Goal:** Demonstrate digital literacy--rather than basic literacy
 - Example 1: Module 4, question 30
 - Example 2: Module 2, question 28
- Commands vs. Instructional language
- Visual Support
 - Example3: Module 5, question 28
- Interfaces that offer multiple ways of doing things



Made to be a Realistic Assessment

- **Goal:** Make the skills demonstrated in the assessment as realistic as possible
 - Simulated (but simplified) interfaces from actual applications
 - Buttons and Icons
 - Example 1: Module 3, question 3 (Windows)
 - Example 2: Module 5, question 1 (Word)
 - Example 3: Module 4, question 12 (Gmail)



Created a Contextualized Environment

- **Goal:** Group assessment questions together appropriately, organized into a logical flow with added mini-scenarios for contextualization when needed
 - Activating schema
 - Providing a context
 - Example 1: Module 2, question 6
 - Example 2: Module 4, questions 8-11

Module 2, question 6

QUESTION 6 OF 33

NORTHSTAR

DIGITAL LITERACY ASSESSMENT



Click on the homepage for Saint Paul Public Library.



Web Browser

amazon.com

Search Books

The Great Gatsby (Paperback)

E. Scott Fitzgerald (Author)

List Price: \$16.00

Price: \$10.20 (37% off)

You Save: \$4.80 (32%)

In Stock.

Format	Amazon Price	New	Used
Hardcover	\$16.17	\$16.99	\$12.99
Paperback	\$10.20	\$6.50	\$4.29
Mass Market Paperback	-	\$9.76	\$1.99
Audio CD, Audiobook, MP3	\$22.49	\$16.99	\$48.12
Audio, Unabridged	-	-	\$22.49
Board book	-	-	-
Audio, Audio Edition, Unabridged	\$9.95	or Free with Amazon 30-day free trial	-

Web Browser

Saint Paul Public Library

HOME | CATALOG | BOOKS | MOVIES | MUSIC | EVENTS + CLASSES | SERVICES | RESEARCH | ABOUT | MY ACCOUNT

Enter keywords to search library catalog or website

Hours and Locations

Arington Hills

Arington Hills Ave.
1104 Overton Dr.
Saint Paul, MN 55108
Tel: 651-793-3300
Fax: 651-793-3300

Mon, Wed: 12 - 4 pm
Tue, Thu, Fri: 10 am - 5:30 pm
Sat: 11 am - 3:30 pm
Sun: Closed

Sign Up for E-mail Newsletters

Don't miss another good book or event at the library!

WHAT'S NEW

FICTION | NONFICTION | MUSIC | MOVIES

Web Browser

Google

saint paul public library

About 14,900,000 results (0.33 seconds)

Everything

Home | Saint Paul Public Library

www.sppd.org

Skip to main content. Saint Paul Public Library logo Type Size A, A, A. Ask a Librarian | Contact Us - Main Site - Kids - Teens - Home - Catalog - Classic Catalog -

★★★★★ 7 Google reviews - Write a review

90 4th St W Saint Paul, MN 55102-1005 (651) 266-7000

locations

Library hours are changing, effective January 30, 2012. See ...

eBooks

eBooks from OverDrive are available to Saint Paul Public ...

Requesting Library Items

Use your library card to request items from the Saint Paul Public ...

More results from sppd.org

St Paul Central Library

Directions

Public Website

The screenshot shows the Northstar Digital Literacy Assessment website. At the top, there is a navigation bar with the following links: HISTORY AND PURPOSE, THE STANDARDS, EMPLOYERS, JOB SEEKERS, and PROCTOR SITES. Below the navigation bar, there is a video player on the left and a text box on the right. The video player shows a man in a suit smiling, with a play button overlay and a 'Facebook gets down to business' title. The text box contains information about the Northstar Digital Literacy/Core Computer Literacy Standards. Below the video and text, there is a section titled 'TAKE THE ASSESSMENTS' with six numbered icons representing different assessment areas: 1. Computer icon, 2. Globe icon, 3. Windows logo icon, 4. Apple logo icon, 5. @ symbol icon, and 6. Document icon.

NORTHSTAR
DIGITAL LITERACY ASSESSMENT

HISTORY AND PURPOSE THE STANDARDS EMPLOYERS JOB SEEKERS PROCTOR SITES

Facebook gets down to business

The Northstar Digital Literacy/Core Computer Literacy Standards are designed to help low-skilled adults perform a variety of daily tasks on the computer and online. Included are basic computer digital literacy standards in five main areas - Basic Computer Use, Internet, Windows Operating System, Email, and Word Processing (Word). Individuals can obtain the **Northstar Digital Literacy Certificate** from proctored sites, providing a credential for employment, once they successfully complete the online assessments.

TAKE THE ASSESSMENTS

- 1
- 2
- 3
- 4
- 5
- 6

Secure Site for Proctored Exam

Proctoring Expectations

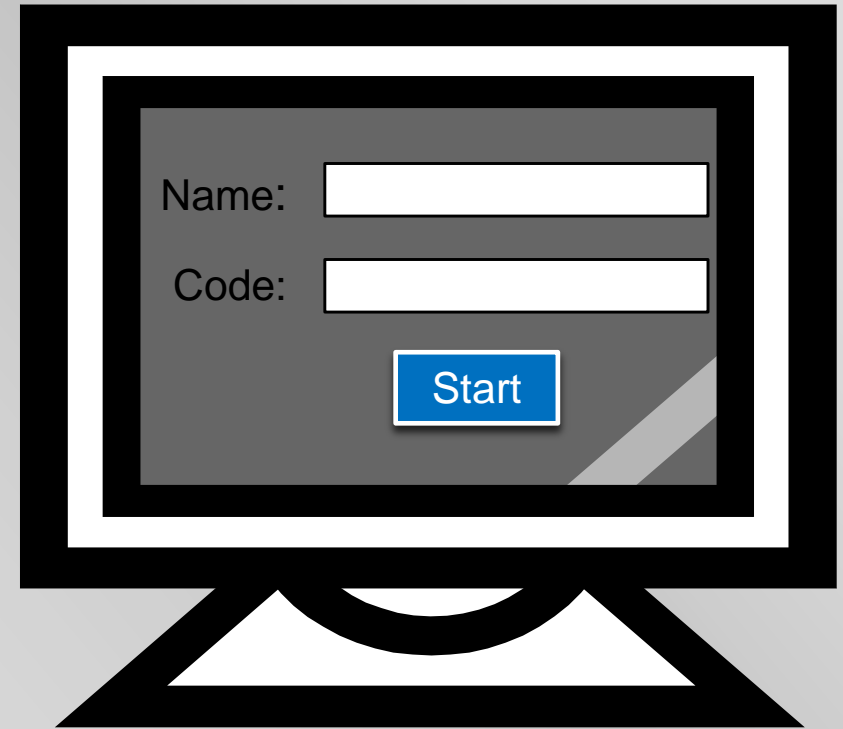
- developed by CTEP Civic Engagement Team
- based on best practice demonstrated in other common proctored exams
- best practice balanced with reality of library & CBO environments.



Learner Experience

Process for taking proctored exam:

1. Learner shows ID
2. Learner assigned a code
3. Proctor signs in learner using code
4. Learner takes assessment
5. Learner receives score sheet showing benchmarks passed and not passed
6. Proctor generates certificate based on result



Results Reporting Features

Login
Password

WELCOME HUBBS LEARNING CENTER

[Logout](#)

Proctor Tools

- Recent Passing Scores
- Generate Proctored Test Code
- Generate a Combined Certificate
-

User Statistics

Under
Development

Module 1

- [Stats](#)
- [Result Data](#)

Module 2

- [Stats](#)
- [Result Data](#)

Module 3 (Windows)

- [Stats](#)
- [Result Data](#)

Module 3 (OS X)

- [Stats](#)
- [Result Data](#)

Module 4

- [Stats](#)
- [Result Data](#)

Module 5

- [Stats](#)
- [Result Data](#)

Data Viewer (Backend Functionality)

MODULE 4 PILOTING REPORTING STATISTICS

Total Records:	147
Average Number Correct:	30.9
Median Number Correct:	32
Average Percent:	66.8%
Median Percent:	68.7%
Number of Passing Scores:	47
Percent Passed:	32%
Avg Duration:	31 min 19 sec
Median Duration:	30 min 24 sec

Top 5 Questions Users Get Wrong

- Question 11 (43 correct--29.3%)
- Question 40 (44 correct--29.9%)
- Question 10 (49 correct--33.3%)
- Question 14 (60 correct--40.8%)
- Question 7 (65 correct--44.2%)

Top 5 Questions Users Got Right

1. Question 27 (142 correct--96.6%)
2. Question 24 (142 correct--96.6%)
3. Question 20 (141 correct--95.9%)
4. Question 17 (134 correct--91.2%)
5. Question 26 (132 correct--89.8%)

Question	# Correct	# Incorrect	% Correct
01	103	44	70.1%
02	87	60	59.2%
03	119	28	81%
04	132	15	89.8%

USER RESULTS DETAIL

User Summary

Name	Passed?	Date	Score	Correct	IP Address	Host	Remote Agent	Duration (Minutes)	Test Site
destiny child	Yes	2011-10-31 11:20:22	84.0%	38/45	205.215.222.135	ip135.hub360.stpaofk12.mn.us	Mozilla/4.0 (compatible; MSIE 8.0; Windows NT 5.1; Trident/4.0; NET CLR 1.1.4322; NET CLR 2.0.50727; NET CLR 3.0.04506.30; NET CLR 3.0.04506.648; NET CLR 3.0.4506.2152; NET CLR 3.5.30729; InfoPath.2)	16.5	HUBB

[View Results Page](#)

Question	Correct?
01	No
02	Yes
03	Yes
04	Yes

MODULE 4 LOGGED DATA VIEWER FOR TSCODE: HUBB

Name	Date	Score	Passed?	Correct	Test Site
C:\Barracuda\ScanFlow	2012-03-04 18:22:41	88%	Yes	40	HUBB
C:\Barracuda\ScanFlow	2012-03-04 14:32:25	61.2%		27	HUBB
C:\Barracuda\ScanFlow	2012-02-29 19:44:12	82%	Yes	36	HUBB
C:\Barracuda\ScanFlow	2012-02-28 12:37:21	85.1%	Yes	38	HUBB
C:\Barracuda\ScanFlow	2012-02-27 19:23:21	92.6%	Yes	43	HUBB
C:\Barracuda\ScanFlow	2012-02-27 19:11:31	94.6%	Yes	42	HUBB
C:\Barracuda\ScanFlow	2012-02-27 16:15:31	87.1%	Yes	40	HUBB
C:\Barracuda\ScanFlow	2012-02-24 10:33:30	85.3%	Yes	41	HUBB
C:\Barracuda\ScanFlow	2012-02-24 10:14:58	78.9%		38	HUBB
C:\Barracuda\ScanFlow	2012-02-23 19:29:34	94.1%	Yes	41	HUBB
C:\Barracuda\ScanFlow	2012-02-23 18:57:36	94.1%	Yes	41	HUBB
C:\Barracuda\ScanFlow	2012-02-23 18:35:14	92.9%	Yes	40	HUBB



Implementation Issues

ISSUE

Different labs have different staffing and resources available to support assessment proctoring

Limited project funding to support on going support of proctoring and certificate process

???

RESPONSE

Created achievable proctoring expectations

Created simple process for storing data - no screen names and passwords for assessment takers

Automated generation of site codes, event codes, and certificate awarding

Possible future support for sites to resolve



Marketing and Promotion

- St Paul Public Library communications team will create materials & help with outreach to businesses and the public libraries.
- CTEP Civic Engagement team will do outreach to CBOs that host a CTEP/AmeriCorps member. Natural, grassroots network to spread the word about assessment.
- Assessment leadership team will network with professional organizations



Business Model

- Challenge:
 - Need to generate revenue to cover tech support, proctor training and support, administration, periodic updating of materials
- Response:
 - Exploring subscription model in which organizations awarding certificates/utilizing data would pay a small fee (\$100-\$300/year)



Questions?

- Jennifer Asp [jennifer.asp14@gmail.com]
- Tom Cytron-Hysom [thysom@real-time.com]
- Michael Graif [michael@1776solutions.com]
- Kit Hadley [Kit.Hadley@ci.stpaul.mn.us]
- Jen Vanek [jenvanek@moreliteracy.com]

Interested in Piloting or Checking out the Modules?

- Contact Michael Graif for piloting information
- <http://www.digitalliteracyassessment.org/assessment/beta/>