Online Learning Readiness: Assessment Research and an Institutional Response

JoAnn Carter-Wells, Ph.D., Coordinator, MS in Instructional Design & Technology, CSU Fullerton

Vietnam Scholars
CSU Fullerton
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• Overview/Context
• Research Question - what skills do students have to participate in the online learning environment
• Methodology - Elearning Consortium
• SmarterMeasure Assessment Tool
• SmarterMeasure Research-quantitative and qualitative
• Institutional Response
• Questions
• Faculty initiated and driven
• University supported-Mission and Goals grant
• Originally 8 faculty; now over 60 and growing
• Regular meetings and special university-wide conference
SmarterMeasure
Assessment Tool
• 124-item web-based assessment of readiness for online learning (www.smartermeasure.com)

• 7 scales and 24 subscales
  – Personal Attributes
  – Life Factors
  – Learning Styles
  – On-Screen Reading Rate and Recall
  – Technical Competency
  – Technical Knowledge
# Personal Attributes

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Attributes</strong></td>
<td>History of success with academic pursuits</td>
</tr>
<tr>
<td><strong>Help Seeking</strong></td>
<td>Willingness to ask for help when encountering a problem</td>
</tr>
<tr>
<td><strong>Persistence</strong></td>
<td>Likelihood of finishing what you started</td>
</tr>
<tr>
<td><strong>Procrastination</strong></td>
<td>Putting off work until later</td>
</tr>
<tr>
<td><strong>Time Management</strong></td>
<td>Ability to plan and budget time</td>
</tr>
<tr>
<td><strong>Locus of Control</strong></td>
<td>Degree to which you believe success and failure are within your own control (skill or effort)</td>
</tr>
</tbody>
</table>
## Life Factors

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Amount of time available to devote to school activities</td>
</tr>
<tr>
<td>Place</td>
<td>Availability of an appropriate place to study</td>
</tr>
<tr>
<td>Reason</td>
<td>Motivation and purpose for attending school</td>
</tr>
<tr>
<td>Resources</td>
<td>Support of others; physical resources, skills</td>
</tr>
</tbody>
</table>
## On-Screen Reading Rate and Recall

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Speed</td>
<td>Words per minute</td>
</tr>
<tr>
<td>Reading Recall</td>
<td>Comprehension questions (sequence of events, factual, inferential, cloze, and main idea)</td>
</tr>
</tbody>
</table>
# Learning Styles

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Learning through active involvement; using the hands, body, and sense of touch</td>
</tr>
<tr>
<td>Aural</td>
<td>Working alone; quiet and non-distracting work environment</td>
</tr>
<tr>
<td>Solitary</td>
<td>Use of logic, reasoning, and systems thinking; mathematical</td>
</tr>
<tr>
<td>Logical</td>
<td>Interpersonal; learns best when surrounded by others</td>
</tr>
<tr>
<td>Social</td>
<td>Linguistic; best able to describe new information by using words</td>
</tr>
<tr>
<td>Verbal</td>
<td>Spatial; comprehends through pictures and graphics</td>
</tr>
<tr>
<td>Visual</td>
<td>Auditory or musical</td>
</tr>
</tbody>
</table>
# Technical Knowledge

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Usage</td>
<td>Ability and adeptness at using several technology applications</td>
</tr>
<tr>
<td>Technology in Your Life</td>
<td>Regular use of technology</td>
</tr>
<tr>
<td>Technology Vocabulary</td>
<td>Terminology related to computer use</td>
</tr>
<tr>
<td>Personal Computer/Internet Spec</td>
<td>Owning a computer; age of computer; type of Internet connection; operating system</td>
</tr>
</tbody>
</table>
## Technical Competency

<table>
<thead>
<tr>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Computer Competency</strong></td>
<td>• Opening a file&lt;br&gt;• Identifying an appropriate software application for a specific task&lt;br&gt;• Downloading and listening to an audio file&lt;br&gt;• Working within a file structure&lt;br&gt;• Saving a file&lt;br&gt;• Printing a file&lt;br&gt;• Identifying an appropriate software application for a specific task</td>
</tr>
<tr>
<td><strong>Internet Competency</strong></td>
<td>• Following a link on a web page&lt;br&gt;• Identifying an email attachment&lt;br&gt;• Using a search engine</td>
</tr>
</tbody>
</table>
## Typing Speed and Accuracy

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speed</strong></td>
<td>Total number of words typed in a given time limit.</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>Absence of typing errors.</td>
</tr>
<tr>
<td><strong>Adjusted Words Per Minute</strong></td>
<td>Words per minute adjusted for the number of errors.</td>
</tr>
</tbody>
</table>
Sample Report

You may use the tabs below to review each section of your report. At the end of each section, you can find some additional resources.

RESULTS AT A GLANCE

![Graph showing results at a glance](http://readi.info/sample-report)

http://readi.info/sample-report
SmarterMeasure Research

quantitative and qualitative
Campus Administration of SmarterMeasure

- N= 1155 (245 males, 908 females)
- Number of Online Courses Completed
  - None (27%)
  - One (16%)
  - Two (14%)
  - Three (10%)
  - Four (7%)
  - Five or more (26%)
## Overall Campus Results

<table>
<thead>
<tr>
<th></th>
<th>Technical Knowledge</th>
<th>Technical Competence</th>
<th>Reading Rate and Recall</th>
<th>Life Factors</th>
<th>Personal Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>95</td>
<td>73.08</td>
<td>77.58</td>
<td>79</td>
<td>74.82</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>7.74</td>
<td>10.05</td>
<td>16.08</td>
<td>8.83</td>
<td>8.48</td>
</tr>
</tbody>
</table>
Life Factors

Bar chart showing the distribution of grades:
- Passing
- Questionable
- Failed

The chart indicates a higher percentage of questionable grades compared to passing and failed grades.
### Personal Attributes

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</tr>
</thead>
<tbody>
<tr>
<td>87.29</td>
<td>74.67</td>
<td>76.90</td>
<td>75.09</td>
<td>87.00</td>
<td>66.67</td>
</tr>
</tbody>
</table>

![Bar chart showing personal attributes percentages](chart.png)
Specific Program Application

• MS in Instructional Design and Technology Program (1st online MS degree at CSUF-2001)
• Readiness assessment-SMARTERMEASURE; diagnostic and not predictive
• Related Reflection question-interview
  • 8. What did you learn either about yourself or the online learning experience when you participated in the SMARTERMEASURE tool? How might what you learned from the assessment influence your preparation or participation in this online degree program?
• N-140; content coding
  – Online learning is more difficult than thought
  – Learned about myself-surprised
  – Technologically savvy-knew that (expected)
  – Learning styles-same/ different than thought-more visual, more auditory
  – Time management- key item
  – References are helpful
  – Awareness /modification while working through program
Institutional Response
Possible Solutions

Readiness for students, at CSU Fullerton

• Power up for success in online learning
• Boot camp
• – Readiness for students
   – Workshops – had 7 workshops
   – Average attendance 20+ students
   – Helping students get their computers configured for online learning 2
   – Hands-on timely training
   – Guidelines for success – interacting with Moodle – time management
POWER UP
For Success in Online Learning
California State University, Fullerton
Power Up Boot Camp

• Designed to promote student success in online learning

• Three components
  – Readiness Assessment using SmarterMeasure
  – Boot Camps
  – Follow up support through online resources
Boot Camp Activities

• One-to-one laptop assistance
• Hands-on practice with web conferencing, voicethread, and Moodle navigation
• Presentations on time management and guidelines for success in online learning
Power Up Web Resources

• Tutorials
• Links to plugins
• Lynda.com link
• Workshops dates and registration
Online Class for Student Readiness

• **Proposed structure:**
  – Readiness Assessment (SmarterMeasure)
  – Instructional Modules
  – Competency Assessments
  – Links to Resources
  – Discussion Forum and Online Community
• **Fieldtesting Assessment Tool Information:**
  
  - [http://csufullerton.readi.info](http://csufullerton.readi.info)
    - Username: MSIDT
    - Password: M51dt01

QUESTIONS
DISCUSSION
&
THANK YOU!!!