

DECADE Consulting, LLC

Suite 321
600 South Court Street
Montgomery, AL 26106

READI Correlational Study

Are there statistically significant correlations between student success variables measured by the Readiness for Education At a Distance Indicator (READI) and variables of academic success and reported levels of goodness of fit for distance education?

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Background For The Study

The Readiness of Education At a Distance Indicator (READI, readi.info, patent pending) measures the following variables:

- Individual Attributes - motivation, procrastination, locus of control
- Learning Styles – based on the multiple intelligences model
- Technical Competency – technical knowledge and skills
- Reading Competency – On-screen reading speed and comprehension
- Typing Competency – typing speed and accuracy

At the time of the publication of this report, about 250 colleges, universities, organizations and corporations use READI to measure learner readiness for learning online. Approximately 100,000 students per year participate in the READI analysis.

As schools and organizations consider implementing READI, they often inquire about the degree to which READI is an indicator of academic success and goodness of fit for distance education for students.

In 2007 the parent company of READI, DECADE Consulting, LLC, commissioned a third party research firm, Atanda Research of Alexandria, Virginia, to analyze data from a study which correlates READI variables to measures of student success and goodness of fit.

Methodology

Data was gathered from participants who had taken the READI assessment from March 4, 2007 to May 29, 2007. An automatically generated invitation to participate was emailed to the prospective participants six months after they had taken the READI survey. This timeline allowed the students to have completed their initial online courses. The data for this study was collected from September 4, 2007 till November 29, 2007. During the time period of the study 14,463 persons took the READI assessment. 1033 of these students participated in this study. This is a participation rate of 7%.

CONSENT TO PARTICIPATE: Persons who had completed READI were invited to participate in the study through a double, opt-in approach. (1) When a new READI account is created for a school, the school has the ability to opt-out on a school-wide

basis from their students being involved in any studies. (2) Students from participating schools received an automatically generated email inviting them to participate in this study. The email was sent six -months after the student had completed READI. This timeline ensured that the student had already completed their initial online courses during which the READI assessment was taken. On the invitation students are informed that the study has no impact on current or future grades and that their privacy is secured. No information which could identify a specific student was revealed during the study. A privacy statement and consent to participate statement are also available from the READI instrument (<http://www.readi.info/index.cfm?fuseaction=consent>)

The survey which participants submitted (<http://www.readi.info/followup/index.cfm?fuseaction=Survey&userid=372315>) allowed participants to self report variables of academic success and goodness of fit of distance education. Academic success data was obtained by asking students to self-report their overall grade point average as well as the grades obtained during their most recent term of study. Goodness of fit of distance education variables were measured by asking participants to report the degree to which the following tasks were difficult in their online courses – reading, finding time, computing skills, and accessing the Internet. Participants were also asked to rank how good of a fit distance learning was for them and whether they would take another distance education course.

Results

Using the Statistical Program for the Social Sciences (SPSS), Atanda Research of Alexandria, Virginia, calculated the correlations between the participant’s scores on the READI assessment and their input on the survey. The correlations are presented in Table 1

TABLE 1

| | Reading Required | Find Time | Computer Skills | Internet Access | Good Choice | Take Another | GPA |
|--------------------------------|------------------|-----------|-----------------|-----------------|-------------|--------------|---------|
| Indiv. Attributes | .095** | .072** | .060** | .070** | .062** | .038** | .090** |
| Overall Tech. Comp. | 0.003 | 0.003 | .111** | .094** | .052* | .050* | .121** |
| Computer Comp. | 0.013 | 0.017 | .103** | .095** | .049* | 0.042 | .098** |
| Internet Comp. | -0.006 | -0.011 | .113** | .089** | .052* | .055* | .138** |
| Tech. Knowledge | -0.029 | -0.003 | .172** | .133** | .115** | .132** | .189** |
| Reading Comp. | -0.016 | *-.053 | .070** | .70** | .069** | .085** | .250** |
| Typing Accuracy | -0.003 | 0 | .098** | .081** | .067** | .056* | 0.114** |
| Visual Learning Style | 0.001 | -0.026 | 0.032 | 0.017 | 0.027 | 0.018 | 0.051* |
| Social Learning Style | .049* | 0.024 | .089** | 0.043 | 0.036 | 0.036 | 0.017 |
| Physical Learning Style | 0.014 | 0.003 | .046* | 0.022 | 0.005 | 0.006 | -0.007 |
| Aural Learning Style | -0.006 | 0.019 | .058* | 0.041 | 0.036 | 0.04 | 0.003 |
| Verbal Learning Style | .138** | .070** | .102** | .068** | .062** | 0.043 | 0.041 |
| Solitary Learning Style | .051* | 0.031 | .061** | .046* | .063** | .064** | .059** |
| Logical Learning Style | 0.066 | .046* | .083** | .50* | .066** | .062** | .096** |

**p<.001

N = 1033

*p<.01

Forty-two correlations between READI scores and variables of academic success and goodness of fit were statistically significant at the .001 level. An additional eleven correlations were statistically significant at the .01 level. This finding validates READI as an indicator of learner success and goodness of fit for distance learning.

Of the five constructs measured by READI, the construct with the most correlation to academic success and goodness of fit is Individual Attributes. The variable of participant's individual attributes scores were statistically significant at the .001 level with all measures of academic success and goodness of fit. The construct with the second most correlation was Reading Comprehension. The construct with the third most correlation was Technical Knowledge. The construct with the fourth most correlation was Verbal Learning Style. **This finding assists educators with understanding that the most telling indicator of student success in online courses is individual attributes such as motivation, procrastination, locus of control, and willingness to ask for help.** The next most telling indicators are the learner's reading competency, followed by technical competency and then by the degree to which the learner has a verbal learning style. Much information in online courses is presented as text which must be read. This has a substantial impact on whether or not distance learning is a good fit for students because of the relationship with reading comprehension and verbal learning style.

The variable with the strongest correlation in the study was relationship between Grade Point Average and Reading Comprehension. (.250 $p < .001$) This is a telling finding for schools planning to provide services to help online students be successful. Schools need to assist online learners in recognizing that a substantial amount of text must be read in online courses. Schools could provide services to aide learners in developing good reading/study habits and to plan for adequate time to read the text associated with the courses.

Recommendations For Further Study

Atanda Research recommends that this study be replicated with some modifications to the survey. The Grade Point Average variable should be measured in a way which provides for greater variability than the five-point scale which was used. This may even increase the strength of the correlations between grade point average and READI scores. A recommendation was also made that all questions on the survey be stated in a positive format for consistency of reporting.