Research Report to the Provost on
Direct Assessment of Information Literacy: A Portfolio Assessment Model
June 2006

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SUMMARY[1]

Objective and Method
To determine the effectiveness of an NJIT undergraduate education on information literacy skills, we used the Dept. of Humanities established writing portfolio assessment model to evaluate student research papers on five additional performance measures in spring 2005. (See Figure 1,Two NJIT librarians developed information literacy performance indicators mapped to Middle States standards to create a scoring rubric used by a team of librarians and teaching faculty to assess student work. (Figure 2.)

Results
Our study, replicable in design, showed high reliability and validity using the established sample and yielded authentic, performance-based data to inform concurrent instructional efforts. Each portfolio score on the information literacy model—citation (M=6.68, SD=3.01), evidence of research (M=6.46, SD=3.25), appropriateness (M=6.24, SD=3.0), integration (M=6.05, SD=2.86), and overall information literacy score (M=6.14, SD=2.90)—fell below the cut score of 7; the lowest scores, on any scale, that have been recorded since the Dept. of Humanities began its writing assessment program a decade before.

Beyond investigating the internal relationships of the model and the abilities of readers to reach consensus and consistency, librarians and instructors wanted to know if relationships existed with other measures of student ability. As such, the writing model and the information literacy mode were both examined for their relationships with criterion-based performance levels of the students: course grade and cumulative grade point average (measures of concurrent validity); placement tests; and admissions tests. All associative relationships for 2005 are shown in Table 1.

Conclusion
Students could present the sources used in their research papers so that the source could be retrieved, but beyond that, the scores were weak. What is to be done when

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[1] Full Research Report available from the authors at
http://www.library.njit.edu/infolit/researchreport.pdf

graduating seniors, with an average of 136 earned credits, earn the scores shown in Figure 1, scores that are lower than those yielded from the writing model? Experience shows that results of the writing portfolio assessment can be successfully used over time to improve the curriculum and teaching. Information Literacy can follow the same pathway to successful integration of information literacy skills.   Authentic assessment of student work has already made a significant contribution to the understanding of the question "When is a person information literate?" at NJIT and can help us illuminate a collaborative and instructional way forward for librarians, faculty and administrators. The results support the recommendations of the ICT Task Force that information literacy become a focus in every NJIT program.

Table 1. Associative Analysis: Senior Seminar Portfolio Scores, Spring 2005.

ASSOCIATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Writing Model																
1. Crit.Thinking	—	.543**	.579**	.771**	.399**	.414**	.402**	.373**	.353**	.471**	.406**	.288*	.215	.115	-.089	.154
2. Drafting	.543**	—	.677**	.555**	.482**	.478**	.569**	.550**	.504**	.206*	.262**	-.134	-.066	.114	-.101	-.139
3. Citation	.579**	.677**	—	.676**	.605**	.533**	.561**	.531**	.559**	.352**	.308**	.119	.172	.214	.016	-.081
4. Overall Score	.771**	.555**	.676**	—	.566**	.516**	.500**	.459**	.497**	.445**	.422**	.038	.071	.047	-.103	-.014
Information Literacy Model																
5. Citation	.399*	.482**	.605**	.566**	—	.812**	.779**	.738**	.834**	.239*	.22*	.036	.029	.183	-.086	.006
6. Evi. of Research	.414**	.478**	.533**	.516**	.812**	—	.882**	.826**	.893**	.348**	.260*	.073	.060	.198	-.050	-.010
7. Appropriateness	.402**	.569**	.561**	.500**	.779**	.822**	—	.905**	.908**	.273**	.223*	-.011	.001	.226	-.123	-.131
8. Integration	.373**	.550**	.531**	.459**	.738**	.826**	.905**	—	.909**	.279**	.193	-.079	-.011	.103	-.302*	-.206
9. Overall Score	.353**	.504**	.559**	.497**	.834**	.893**	.908**	.909**	—	.281**	.223**	-.018	-.021	.195	-.162	-.160
Concurrent Validity																
10. Course Grade	.471**	.206*	.352**	.445**	.239*	.348**	.273**	.279**	.281**	—	.521**	.099	.097	-.013	-.003	.263
11. CumGPAS05	.406**	.262**	.308**	.422**	.222*	.260**	.223**	.193	.223**	.521**	—	.018	.013	-.018	.019	.149
Placement Tests																
12. Reading	.288*	-.134	.119	.038	.036	.073	-.011	-.079	-.018	.099	.018	—	.779**	.253	.374*	.748**
13. Sentence	.215	-.066	.172	.071	.029	.060	.001	-.011	-.021	.097	.013	.779**	—	.309*	.320*	.700**
14. Essay	.115	.114	.214	.047	.183	.198	.226	.103	.195	-.013	-.018	.253	.309*	—	.145	.076
Admissions Tests																
15. SAT Math	-.089	-.101	.016	-.103	-.086	-.050	-.123	-.302*	-.162	-.003	.019	.374*	.320*	.145	—	.480**
16. SAT Verbal	.154	-.139	-.081	-.014	.006	-.010	-.131	-.206	-.160	.263	.149	.748*	.700**	.076	.480**	—

*$p < .05$
**$p < .01$