Evaluating the Effectiveness of Integrated Information Literacy Instruction on Student Outcomes in the English W131 Multilingual Curriculum

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Abstract

This study evaluates the impact of a newly implemented approach to integrated information literacy instruction in the English W131 Multilingual curriculum. Using a combination of institutional records, measures of student success and achievement, and a rubric-based assessment of students’ research-oriented course assignments, this study aims to identify the kinds of information literacy instruction that are most effective, the times during a course or curriculum when instruction has the greatest impact, and the characteristics of students that benefit most from instructional interventions. Additionally, this study examines the potential long-term effects of instructional interventions on students’ acquisition of critical thinking and information literacy skills, and compares the efficacy of new English W131 Multilingual instructional approach to previous versions of the multilingual curriculum. The results of this study will contribute to better understanding what course-level and curriculum-level instructional interventions that are most effective, impactful, and sustainable, and will provide a model for other curricula to follow for implementing information literacy instruction.

Purpose

English W131 Multilingual is an English Composition course designed specifically for students whose previous educational experience was in a language other than English. It enrolls approximately 480 students across 32 sections each year, and for many international students it comprises the core of their educational experience in English instruction by fulfilling IUB’s General Education English Composition requirement. English W131 therefore focuses on intensive college-level analytical writing, critical thinking, and research synthesis, as well as lexical and linguistic development.

In the 2017-2018 academic year, English W131 Multilingual courses participated in an IU Libraries information literacy curriculum grant. The grant aimed to 1) address issues of source identification, evaluation, and integration in research writing, and 2) develop library-based tutorials to facilitate students’ research process. As part of the IUB Libraries information literacy instructional programs, these curriculum grants represent a key commitment to the Libraries’ academic mission in providing research training in support of Core Goal 1: An Excellent Education of the Indiana University and IUB Libraries strategic plans.

This collaboration between the English department and the Libraries therefore presents an opportunity to examine the interrelationship between composition and information literacy instruction and to evaluate the effectiveness of their course-level integration on students’

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1 Information literacy is defined as the set of abilities required for individuals to recognize when information is needed, and to locate, evaluate, and effectively use the required information. IUB librarians teach more than 200 information-literacy focused instructional classes per year and contribute to the development of departmental curricula throughout the university.
learning outcomes and educational success. Using institutional data, this study will first consider high-level questions about the English W131 Multilingual curriculum and the impact of the new information literacy instructional interventions. Specifically, we will evaluate if the new curricular approach is correlated with changes to predicted in-course, co-enrolled course, and overall GPA; achievement in students’ subsequent English, General Education, and in-major courses; and retention rates, and will compare the outcomes of students in the W131 Multilingual curriculum to students in the previous versions of the multilingual curriculum. We will also examine the impact of course sequencing related to the timing of W131 enrollment, particularly if taking the course in the first or second semester of the academic year or if preparation via the English Language Improvement Program affects these measures of students’ success.

This study will then collect examples of students’ W131 research and writing assignments in order to directly assess students’ utilization of information literacy and critical thinking skills and to evaluate the effectiveness of the newly implemented information literacy curriculum. The dataset created by the evaluation of these student artifacts will be linked to other student-level data via enrollment records will allow further investigation of the effectiveness of information literacy instructional interventions, and how their relationships with course sequences and students’ preparedness and skill levels affect both assignment-level learning outcomes and higher-level student success indicators.

**Significance & Outcomes**

This research will enable the Department of English and the IUB Libraries to better understand the efficacy of their instructional programs, and will help identify high-impact instructional methods, the timing within students’ course curricula when instruction is most effective, and the characteristics of students that most benefit from instruction. From these results, this study will also suggest best practices and approaches for integrating library and information literacy instruction within other IUB curricula.

The results of this study will provide a basis for measuring the benefits of information literacy instruction on students’ assignment-level learning outcomes both in courses that receive information literacy instruction and in future courses taken after these instructional interventions. Evaluating the long-term effects of information literacy instruction will not only contribute to the Libraries’ understanding of how students develop and master critical thinking and analysis skills, but will also help the Libraries to implement instructional interventions at the most effective locations and times in a student’s course of study.

By developing an assessment method that will contribute to the English Department and IUB Libraries’ ongoing evaluation of their instructional programs, this study will assist both departments in allocating instructional resources and developing course-level and curriculum-level instructional interventions that are most effective, impactful, and sustainable, and that most effectively meet the specific needs of international students.
Methods

The curriculum-level research questions outlined above will be analyzed using institutional data obtained from the Student Information System via the Bloomington Assessment and Research office. This data will be analyzed at the student record level using a combination of correlation, ANOVA, and multiple regression techniques.

Examples of students’ research assignments will be collected from English W131 courses during the 2017-2018 academic year. These assignment artifacts will be scored using a series of information literacy evaluation rubrics designed to measure the skills taught during their course instruction. A team of raters will norm these rubrics and assign scores to the artifacts, and inter-rater reliability measures will be obtained. The results of the rubric evaluations, along with variables from library instruction records and institutional student records, will also be analyzed using a combination of correlation, ANOVA, and multiple regression tests to identify and evaluate the effects of the information literacy instruction. This research has been approved by IUB’s IRB, and consent is being obtained for students for the use of their assignments.

Measures of Success

Developing a method for evaluating the impact of information literacy instruction at the course level that can be applied to course curricula across IUB is a key measure of success for this project. This project will also contribute to the Libraries’ ongoing efforts to build longitudinal datasets of assignment-level student artifacts that can provide a basis for ongoing assessments of the impact of the Libraries’ information literacy instructional programs.

Previous Research Results

Previous learning analytics projects conducted by the IUB Libraries have examined the impact of course-level library instruction on students’ educational outcomes. These studies have suggested that library instruction has a positive impact on students’ final course grades and subsequent related coursework, especially for students at the lower end of expected academic performance spectrum, and that information literacy instruction is most effective early in a student’s course of study. While encouraging, these studies did not provide conclusive results, and also revealed the difficulty in using composite variables such as course grades or GPA to evaluate instructional outcomes, and the need for assignment-level analysis to understand the acquisition of information literacy skills. A preliminary study to validate the efficacy of an assignment-level rubric analysis of information literacy skills is currently in progress as part of the 2016-2017 Learning Analytics Fellow program, which will provide this project with a tested framework that can be effectively modified and applied to the specifics of the English W131 curriculum.

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2 See https://scholarworks.iu.edu/dspace/handle/2022/21277