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The Effects of Syllabus Design on Course Information Retention by At-risk First Semester College Students

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THE EFFECTS OF SYLLABUS DESIGN ON COURSE INFORMATION RETENTION BY

AT-RISK FIRST SEMESTER COLLEGE STUDENTS

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

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Indiana University of Pennsylvania

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Title: The Effects of Syllabus Design on Course Information Retention by At-risk First Semester College Students

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Researchers have examined and researched most aspects of the educational experience. However, one component has been neglected, the syllabus, specifically the design of the syllabus. Syllabi are a common element found across institutions of higher education. The syllabus is utilized to provide students with key information regarding course expectations, however students are not necessarily reading or retaining this important information. Today's students communicate using multimodal means e.g. graphics, text. In academia, words and text are the primary sources of knowledge, and images function merely as illustrations. Use of a multimodal information delivery method which includes text and graphics may enhance the integration of learned materials and ultimately knowledge. This investigation sought to understand if syllabus design has an impact on the retention of course information presented in the syllabus. Specifically, if an infographic syllabus addendum increased the retention of syllabus information, focusing on what research indicates students identified as important information in a syllabus. The cognitive theory of multimedia learning was the theoretical framework for the study, along with infographic design features and the textual requirement to create the infographic syllabus addendum. A quasi-experimental approach was utilized where the control group received only the traditional text-based syllabus, and the two experimental groups received an infographic addendum along with the traditional text-based syllabus. The students

were tested both at three weeks and at ten weeks to determine if syllabus design impacts the retention of information over time. The study participants were first semester freshman from a regional campus which primarily serves individuals identified as academically at-risk. A series of ANOVA tests along with a correlational analysis was conducted to answer the following questions: 1) does syllabus design impact the retention of course information, 2) do demographics impact course information retention, 3) does prior academic preparation impact the retention of course information, 4) do graphics impact course information retention, and 5) does color impact course information retention? Statistical analysis indicates that both syllabus design and graphics promotes the retention of syllabus information over time. Additionally, a student's high school GPA does have a positive correlation to retention of course information over time.