

Critical Thinking Skills and
Student Success Rates Increase
in History Courses with MindTap at
Texas Southern University

Case Study: Critical Thinking Skills and Student Success Rates Increase in History Courses with MindTap at TSU



MindTap

About MindTap

MindTap is an online, personalized learning experience built on Cengage Learning's content that combines student learning tools—readings, multimedia, activities, and assessments—into a Learning Path that guides students through their course. Instructors can personalize the experience by customizing Cengage Learning content and learning tools, including adding their own content via apps that integrate into the MindTap framework with Learning Management Systems.

The Institution

Texas Southern University was founded in 1927 and has a legacy as a historically black institution. Its stated mission is to provide “academic and research programs that address critical urban issues and prepare an ethnically diverse student population to become a force for positive change in a global society.” Texas Southern University offers more than 100 undergraduate programs and graduate programs and concentrations and currently enrolls more than 9,700 undergraduate and graduate students from across the world.

The Courses

HIS 231 and 232 are required of all undergraduate students at Texas Southern University. The courses are a survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the present. Students are expected to develop critical thinking and communication skills as well as personal and social responsibility. HIS 231 and 232 are taught by a number of faculty out of the History department.

The Redesign

Due to low student pass rates in HIS 231 and 232 courses, the chair of the History department, Dr. Nikki Taylor, began exploring adopting a different learning solution for these courses. “We needed something that would allow our students to comprehend the content, which was something they had not been doing,” said Nikki. She added “We also wanted a digital learning solution that would allow students to increase

their critical reading and critical thinking skills, and not all solutions do that. Some [solutions] simply want [students] to regurgitate whatever they learned in a chapter.” After a review of learning solutions, Nikki came to the conclusion that MindTap was the best fit for the History department’s survey courses.

After deciding on MindTap, Nikki and her core U.S. History faculty went to work redesigning the survey courses. Nikki wanted to ensure the survey courses were structured in a manner that was consistent with MindTap and leveraged the tools and technology available. “We started with the premise that students are more technologically savvy than we give them credit for,” said Nikki. With that in mind, the course was structured in a way that required students to engage in the content and exercises in MindTap’s learning path. Approximately 20% of the student’s grade was directly tied into MindTap homework and activities. Additionally, chapter reviews and study guides within MindTap were tied directly to the course exams. “In order to use MindTap effectively you have to use it often. None of my professors use it once or twice. They use it daily or weekly in terms of homework, quizzes, study guides, chapter reviews,” said Nikki.

In addition to a drastic improvement in student outcomes, Nikki and her core U.S. History faculty noticed increased levels of student engagement. “I know for a fact that students are more engaged... [students] have said that history is more enjoyable. When we were using [our previous courseware] students were not at all interested in history,” said Nikki. With the MindTap redesign, the History department was able to achieve another one of the major goals they had at the outset – increasing students’ critical thinking skills. “[Students] now have better critical thinking skills. They know what U.S. History is about and why [they] should learn it. They’re more versed in the actual history,” said Nikki.

Overall student reaction to MindTap has been positive. According to Nikki “Students know something happened in the history department [in regards to the course redesign].” Nikki said that since redesigning



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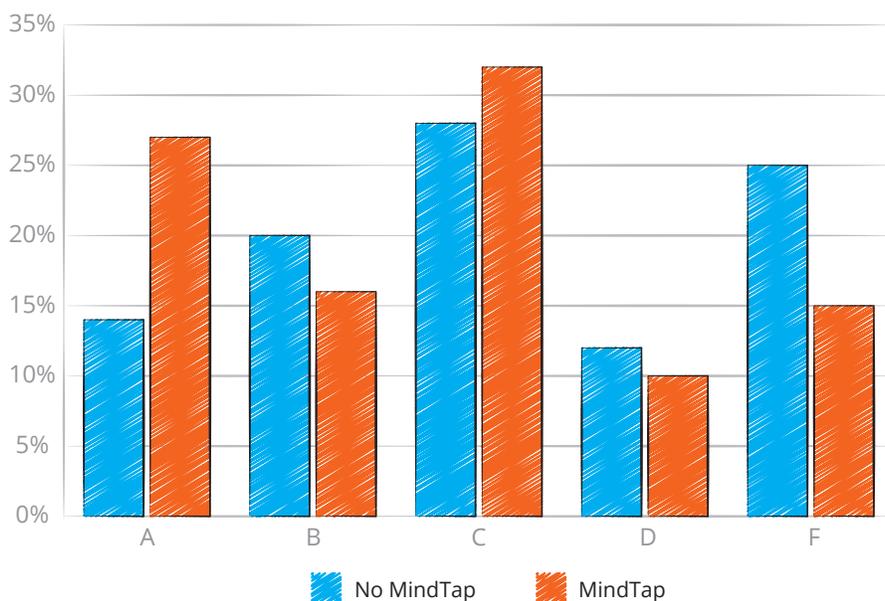
the courses around MindTap, students understand that they need to keep up with their history assignments daily. The positive student reaction to the course has led to more students declaring history as a major. "Students say the classes are better and we have had a flood of new [history] majors," said Nikki.

The Findings

Students using MindTap for American History outperformed their peers that used other materials in previous semesters. In both <231> and <232>, there was a dramatic improvement in overall grades. These differences proved to be statistically significant when comparing the letter grades of over 10,000 students.

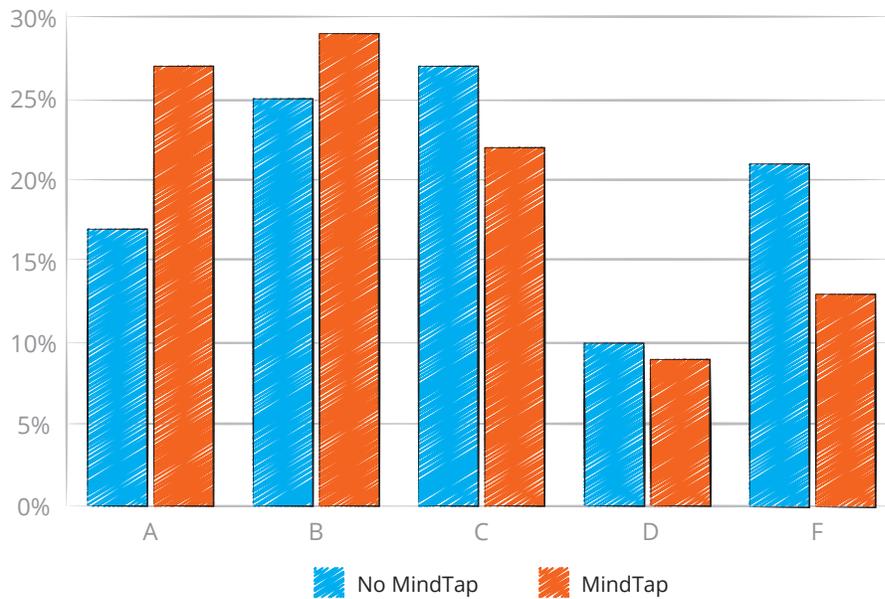
For <231>, as shown in Figure 1, the number of A's earned almost doubled when MindTap was introduced. At the same time, the number of F's went down by 43%. This resulted in a difference in Grade Point Average of almost half a letter grade, 0.45. This difference was shown to be statistically significant, $t(1942) = 10.34, p < .001$.

Figure 1: Percent of Letter Grades Assigned with and without MindTap in HIS 231



Similarly results were found for <232>, as shown in Figure 2. Students earned 61% more A's while F's decreased by 37%. Again, the Grade Point Average increased by almost half a letter grade, 0.42. And the difference was statistically significant, $t(1892) = 9.10, p < .001$.

Figure 2: Percent of Letter Grades Assigned with and without MindTap in HIS 232



The results show that, for both courses, there was an impact of MindTap on academic outcomes, as measured by grades. The effect size was 32% (.32) of a standard deviation. This is commensurate with an average student, in the 50th percentile rank of the class, moving up 12 percentile ranks to the 62nd percentile rank simply by using MindTap.



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History Department Chair,
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Conclusion

Both the qualitative and quantitative data show MindTap had a significant impact on learner outcomes and student engagement in HIS 231 and 232. The number of students failing or dropping both courses plummeted while instructors and students reported higher levels of engagement. Instructors also noted that a key objective of the course – increase students' critical thinking skills – had been met through the course redesign around MindTap.





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