# PEER REVIEWED WHITE PAPER

# Student Learning and Engagement Improve with CengageNOW

A study of the impact of Cengage Learning's CengageNOW on student learning



# **ABOUT THE STUDY**



#### About CengageNOW

CengageNOW is an Online Teaching and Learning Resource offering teaching and learning resources organized around essential class activities perform — lecturing, creating assignments, grading, quizzing, and tracking student progress and performance. CengageNOW provides students access to an integrated eBook, interactive tutorials, videos, animations, games and other multimedia tools to help them get the most out of a course. This research study examines one of the most widely used digital tools in post-secondary education, Cengage Learning's CengageNOW, an online teaching and learning resource that provides instructors with learning management tools to deliver better student outcomes.

MarketingWorks and SEG Measurement, two independent research firms, conducted a comprehensive study of CengageNOW's effectiveness in the spring of 2013 using a variety of qualitative and quantitative methods. The primary goal of the study was to determine whether CengageNOW users learned more than a control group that used the same textbook but without CengageNOW. Further, the study investigated faculty and student perceptions of the product.

A total of 30 instructors in 30 accounting courses in 29 different institutions of higher education participated in the CengageNOW research, including 15 treatment instructors and 15 control group instructors. Student learning in accounting classes using the CengageNOW application (treatment group) was compared to student learning in accounting classes not using CengageNOW (control group), with both groups using the same print textbook. Pre- and posttests of the accounting knowledge and skills taught in the course were administered, and differences in end-of-course grades between CengageNOW users and non-users were examined as a basis for evaluating the effectiveness of CengageNOW. In addition, the 15 instructors and a sample of 27 students using CengageNOW provided feedback at the beginning and end of the study and bi-weekly throughout the semester.

#### **CengageNOW Users Achieve Higher Grades** (Student Grades, Scale = 0-100; N=246) 87 Treatment 83 Control 80 81 82 83 84 85 86 87 88 89 90 Final Course Grades

# Student Grades Increases Dramatically Using CengageNOW

Students in classes using CengageNOW achieved significantly higher final end-ofcourse grades in accounting than did students in classes using the same textbooks but without CengageNOW. The treatment group achieved significantly higher grades as illustrated below. This level of growth reflects an increase from the 50th to the 64th percentile (14 percentile points).

In addition, students in the subset of Accounting courses using CengageNOW and taught by instructors and adjunct instructors (as opposed to professor-level faculty) achieved significantly higher final end of course grades in accounting than did students in classes led by the same types of instructors and adjuncts using the same textbooks but without CengageNOW. Instructors and adjuncts may have fewer ongoing ties to the institution and may have fewer resources and less time to manage courses than full time instructors. The level of growth reflects an increase from the 50th to the 69th percentile (19 percentile points).

#### "I would use CengageNOW in every class if I could. It is the best thing since sliced bread!"

#### Dawn Stevens Instructor, Northwest Mississippi Community College-Desoto Center

"CengageNOW provides all the tools to make both teaching and learning easier. It is easy to use if the students use it. I encouraged use of the study tools almost daily. It is fantastic."

Jamie Payton Instructor, Gadsden State Community College "CengageNOW has increased my knowledge of the subject through application of core concepts in the homework assignments. It has been a very helpful tool for studying and completing assignments."

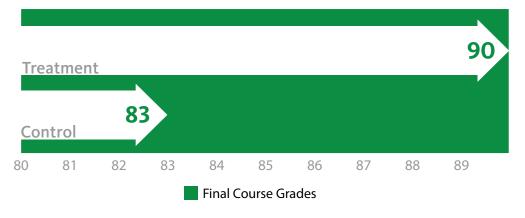
Sandra Weeks Student, Indian River Community College

"Because of the many study tools provided with the course, CengageNow has provided a wellrounded environment for various learning styles. It forces students to be more organized and allows those who have an interest to help themselves and have vast resources they couldn't get otherwise."

Julie Armstrong Professor, St. Clair County Community College

### CengageNOW Users taught by Instructors/Adjunct Instructors Achieve Higher Grades

(Student Grades, Scale = 0-100; N=137)



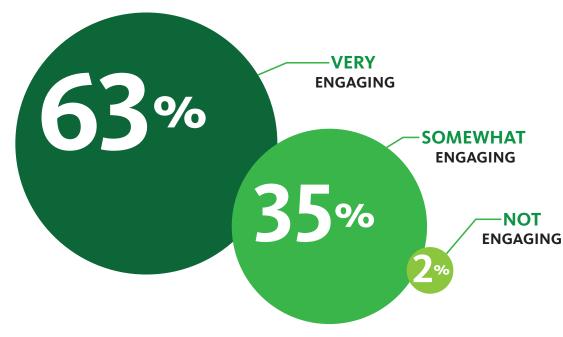
### **CengageNOW Enhances Student Engagement**

All instructors reported that students' engagement was positively impacted by their use of CengageNOW, with 33% saying engagement was greatly impacted, 53% saying it was somewhat impacted and 13% saying it was slightly impacted.

All instructors using CengageNOW felt that students were either very engaged (53% of instructors) or somewhat engaged (47%) with the coursework, with 97% of students agreeing that they found the coursework to be either very engaging (62%) or somewhat engaging (35%) (Figure 3) Furthermore, almost three quarters (73%) of the students said they were more engaged in the course because of their use of CengageNOW. As a sign of their engagement, 93% said that the program helped them to focus on areas where they needed the most help extremely well (62%) or somewhat well (31%).

#### Students in Classes Using CengageNOW are Engaged

(Student Reported Level of Engagement)



"I think the beauty of CengageNOW is the interactive element of the homework. It provides instant feedback in the form of suggestions and tips rather than just telling the student that he got the question wrong. It forces the user to look at the problem from multiple angles in order to answer the problem correctly. Everything was covered adequately and thoroughly."

**Derek Trainor-Fogleman** Student, Bridgewater College

# **CengageNOW Helps Instructors Teach Better**

All 15 instructors using CengageNOW felt that it contributed to the improvement of student learning outcomes, with 33% saying outcomes were greatly improved, 60% saying somewhat improved, and 7% saying slightly improved. In addition, all but one instructor felt that CengageNOW helped to get students through their course either extremely well (47%) or very well (47%). Lastly, instructors felt that CengageNOW made teaching easier and better (average rating of 3.6 out of 4).

"I swear by it. Students are not waiting for me to grade papers, it gives them immediate feedback, and they like that . . . they absolutely love it."

Robert Pacheo Professor, Massasoit Community College

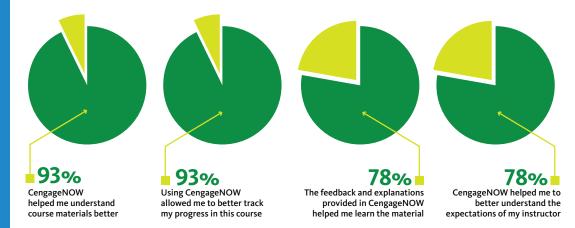
# CengageNOW Meets the Needs of All Types of Students

CengageNOW is equally effective for men and women and for students of different ethnicities. In addition, instructors stated the needs of students with a wide range of capabilities were met very well through the use of CengageNOW (average rating of 3.3 on a scale of 1-4). And 81% of the 27 students reported they had learned more than they would have otherwise because of their use of CengageNOW.

Student ratings of specific aspects of CengageNOW reflected their attitudes toward, and the degree to which the tool helped them learn, track their progress, and meet instructor expectations.

Two-thirds of instructors reported that CengageNOW helped students to focus on areas where they needed the most help either extremely well (27%) or somewhat well (60%).

#### **CengageNOW Helps Students Learn**



# Conclusion

In a national, semester-long study, students in classes using CengageNOW showed significantly greater growth in accounting knowledge and skills than students in classes that did not use CengageNOW. Both instructors and students judged CengageNOW to be effective and engaging. And, instructors and students indicated that they would recommend or choose to use the tool in the future. In short, CengageNOW was found to be an effective tool for improving student knowledge and skills.

"I love Cengage, I love everything about it. It goes deeper than the book or the teacher — it's more detailed, there are more options, and there are always a variety of ways to help you."

Amanda Cronin Student, Indian River Community College

# CENGAGE Learning

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Our paper examining the efficacy of the CNOW application for Accounting was accepted for presentation and presented at the 2013 ELearn Conference in Las Vegas on October 21. The paper was independently reviewed by at least two reviewers and selected. The 2013 CNOW study has been peer reviewed.

Source Code: 14M-IN0005 ISBN: 978-1-133-36731-4

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