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## **Course convenience, perceived learning, and course satisfaction across course formats**

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**Abstract**

*Students' desire for course convenience may lead to their preference for online courses. But in their desire for convenience, are students sacrificing satisfaction or perceived learning? This article investigates the moderating impact of course format on the relationship between convenience and both perceived learning and satisfaction. Moderated regression analysis of over 1100 student students in online, blended, and face-to-face course formats shows that students in all course formats value convenience similarly. Post hoc analysis shows a moderating effect of hours worked in employment on the convenience-perceived learning relationship rather than course format. We conclude that making courses more convenient is a critical factor in satisfaction and perceived learning, but that this effect is not accomplished by merely offering online courses.*

**Keywords:** *Course convenience; perceived learning; course satisfaction; course format; undergraduate capstone course; service convenience.*

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## Introduction

Students' increasing use of 'instant' media and access to the Internet have changed some of their expectations for course delivery from face-to-face to online. Also, pressure on higher education institutions to increase efficiency have greatly accelerated the development of online courses (Miles, 2014; Wooten & Hancock, 2009). Allen and Seaman (2015) found from a comprehensive survey that 70.8 percent of institutions consider online learning a critical component of their educational strategy. Students' desire for convenience may be driving this reliance on online courses, but it is not clear if students are choosing online and its convenience at the expense of course satisfaction and perceived learning. We address these issues by analyzing the impact of course format on students' perceptions of the convenience-course satisfaction and the the convenience-perceived learning relationships.

We are studying course convenience in part because pressures facing administrators. They feel the need to compete with online degree programs in order to avoid loss of market share. Pressure for online courses comes in part from students who need to balance work, family and school responsibilities (Albert & Johnson, 2011; Leonard & Guha, 2001). Students may also link convenience with overall institutional quality. At the department level, students often use course convenience as a criterion for selecting one course over another. Thus, convenience is becoming an important dimension of institutions' enrollment management strategy.

As experienced educators, we wonder whether our students' choices are anchored in something deeper. In what way, and on what dimensions, do learners associate course convenience with learning and satisfaction? Or are they valuing convenience out of necessity? If the latter, then we suspect that educational standards may be at risk. Alternatively, convenience may associate with learning and satisfaction, which suggests that faculty and administration put a premium on convenience in curricular offerings.

The relationships of course convenience with perceived learning and course satisfaction, especially across course formats, is rarely considered. Service convenience has attracted the focus of research in service industry (Berry, Seiders, & Grewal, 2002), but application of this theory to higher education is limited to a couple of theoretical papers (Collier, Ponder, & White, 2007; Harry, Collier, Ponder, & White, 2010). In this article, we empirically apply this model to higher education and extend it to multiple course formats. Study of the impact of course convenience on students' assessments of course satisfaction and learning advances our understanding of students; choice of curricular offerings.

In the following sections, we apply theory related to convenience in higher education, methodology and empirical analysis, and a conclusion that suggests implications for faculty and administration.

## *Literature Review*

### *Convenience*

Convenience has been studied in the context of service industries (Berry, Seiders, & Grewal, 2002), and represents the idea that individuals, when engaged in decision making, estimate how much time and effort is involved to achieve a goal. They naturally seek and value products and services that are convenient in an attempt to reduce the psychological/physical costs and the physical/mental efforts involved with decision making. Thus, convenience may be an innate characteristic of human beings (Kovac, 2014). Farquhar & Rowley (2009) note that individuals 'are not in fact

convenience-oriented *per se*' (p. 427). People vary according to the importance or weight they give to each specific dimension of convenience. Thus, convenience is a psychological summary statement individuals make when they evaluate how much time and effort is required to complete an entire transaction.

In higher education, researchers have proposed a linkage between convenience and student perceptions of a quality education (Collier, Ponder, & White, 2007; Harry, Collier, Ponder, & White, 2010). Researchers have applied access convenience (Berry, Seiders, and Grewal, 2002) to online courses in higher education, defining access convenience as 'the flexibility and ease in which a student is allowed to participate in an online class' (Collier, Ponder, & White, 2007, p. 173). Harry, Collier, Ponder, & White (2010) define benefit convenience (Berry, Seiders, and Grewal, 2002) for online courses as 'the time and effort required for the successful completion of an online course' (p. 139). Harry et al. (2010) also argue that greater benefit convenience results in increased student perceptions of learning. These researchers argue that convenience is an important determinant of student satisfaction and perceived value from a course.

Some factors may limit the perceived value of service convenience. Convenience may be less important for highly-valued services, or for services requiring highly-skilled labor, for services pursued for pleasure. In addition, Berry et al. (2002) note that consumer characteristics affect their assessment of service convenience. In particular, time pressure, or the extent to which 'people perceive their available time to be insufficient' (p. 10), seems most germane to students' perceptions of higher education services.

We extend these analyses to three course formats-- face-to-face, blended, and online. We define course convenience as the time and effort required by students to access the materials and experiences required for learning. For face-to-face courses, convenience refers to the time and effort it takes for students to travel to class, park, obtain materials needed for class, and forego other competing uses of the time and effort such as work or other activities. For online classes, convenience refers to the ease with which students can get to a computer or other portal, log on, and navigate to the course website and other course-content places. Our study combines benefit and access convenience by focusing on the relationship between the time/effort necessary to obtain course content and students' satisfaction and perceived learning of course content.

### ***Course Satisfaction and Perceived Learning***

Convenience matters because it affects students' perceived value from a course. We use two such measures: course satisfaction and perceived learning. Course satisfaction is an overall measure of students' perceived benefit from a course, and most directly pertains to benefit convenience described above. All else being equal, we might expect that students who rate a course as more (less) convenient will also rate it as more (less) satisfying. Note that Berry et al.'s (2002) theory lists some reasons why this relationship may be weak. Higher education may be perceived by students as a highly valued service that is worth a significant time investment, and that therefore convenience may not be very important. Higher education may also involve highly skilled labor from professors, and students are developing high-level capabilities, which suggests that the importance of the service reduces the perceived value of convenience. Some students may even find higher education pleasurable, which would also reduce the importance of convenience. In spite of these reservations, we propose that the general value of convenience is still important in higher education. None of the above considerations suggests that convenience is not desirable, just less desirable than for some other services.

H(1) Students will perceive a positive relationship between convenience and course satisfaction.

We also think that convenience may affect students' perceived learning in a course. A benefit of using perceived learning is that it is more specific than satisfaction. Course satisfaction is a general measure that could capture any number of factors. Perceived learning is more likely to measure students' actual learning. Researchers recognize that evaluating students' cognitive accomplishments is a multi-dimensional task that relies on a continuous process of understanding, experimentation, and adaptation (Dean & Fornaciari, 2014). A study of factors affecting student performance found that at least eleven independent variables influenced student performance (Clark & Latshaw, 2013). Examples included attendance, homework completion, and the fit between student learning style and teaching style. In a thorough literature review, Benbunan-Fich (2010) reported that self-assessed learning is correlated with both affective learning and cognitive learning. Further, while the correlation between self-assessed learning and objectively measured learning appears modest, objective measures may be flawed in that they do not capture student motivation and participation levels in a course. These considerations suggest that self-assessed learning may have an advantage over objective measures (Eom, Wen, & Ashill, 2006). Vander Schee (2011) also argues that students' self-reported performance measures may better explain their learning than other objective approaches. Thus, our measure of perceived learning may capture aspects of learning that objective measures do not.

The more personally engaged students are with a subject, the better the educational outcome (Piercy, 2010). Prior research indicates that learning should associate with student self-determination, intrinsic motivation, and action learning (McEvoy, 2011), which are a function of the degree and quality of faculty-student interaction (Umbach, Padgett, & Pascarella, 2010), interactions with other students (Rovai & Barnum, 2007), perceived relevance (Klein, Noe, & Wang, 2006), and the overall quality of instruction (Bain, 2004; Clayson, 2013).

As noted above, Harry et al. (2010) note that benefit convenience means that students perceive value from a course, and part of that value is their perceived learning. With the same considerations as those pertaining to satisfaction, we offer the following hypothesis.

H(2) Students will perceive a positive relationship between convenience and learning.

### ***Course formats***

We define course formats as follows. Face-to-face courses have 29% or less of their content so delivered through computer mediated technology. Blended courses have from 30% to 79%, and online course have 80% or more of their content delivered through computers. All formats may rely heavily on computer technology (Picciano, 2014). Faculty may select course activities that challenge students, meet objectives, facilitate learning, and that 'fit' the course format. Therefore, course activities are likely to be different across course formats both quantitatively and qualitatively. Students adapt to these course designs differently for each course format, resulting in unique experiences (Daymont, Blau, & Campbell, 2011).

Asynchronous, online learning liberates course delivery from the physical constraint of place. Online courses help students better manage and balance work, family, and other personal needs with school demands (Nonis & Hudson, 2010), which should maximize convenience and offer considerable perceived benefit to students (Wooten & Hancock, 2009). Students report that course convenience is an important motivation for enrolling

in online courses (Eom & Arbaugh, 2011; Tanner, Noser, & Totaro, 2009; Bocchi, Eastman, & Swift, 2004).

Online courses also challenge students. While they can choose when to work on a course, they also must discipline themselves to put in the effort to meet required course performance objectives (Daymont, Blau, & Campbell, 2011). A general research finding is that online courses have greater attrition than those in other formats, possibly due to students' feelings of isolation (Laing & Laing, 2015).

Blended courses include a combination of face-to-face and online sessions. They are perceived increasingly as offering dual benefits in terms of convenience and student engagement (Daspit & D'Souza, 2012; Picciano, Dziuban, & Graham, 2014; Wankel & Blessinger, 2013). Blended courses may give students more control over the pace of their learning, but still provide a supporting structure (Ross & Rosenbloom, 2011). Chia-Wen (2010) found self-regulated learning to be important in achieving successful outcomes in blended format courses.

Some studies find that positive student self-assessment of their learning in blended courses can be significant (Castle & McGuire, 2010; Moskal, Dziuban, & Hartman, 2013; Owston, York, & Murtha, 2013). However, the conclusions are not unanimous. In a three-year study of an undergraduate information systems course involving face-to-face, blended and online sections, Benbunan-Fich and Hiltz (2003) found no statistically significant differences.

Student perceptions of course convenience may not be synonymous with how 'easy' a course is (Harry, Collier, Ponder, & White, 2010). While some students believe that the best course is one that requires the least work, repeated surveys show that most students care about learning, achieving career goals, and pursuing their intellectual curiosity (Gomez, 2013; Boekaerts, Smit, & Busing, 2012).

We expect that individuals will weigh different dimensions of convenience during their decision making (Farquhar & Rowley, 2009). Students may differ in their appreciation for convenience across different course formats. The online format offers the most convenience, and learners choosing that format may weight this attribute high in their decision making and assessment of the course value. Online learners may find that greater convenience positively affects their perceived learning because they are able to time their study efforts optimally for their circumstances, may be less distracted by information overload, and have sufficient time to reflect on course material (Perreault et al., 2008). These considerations suggest the following two hypotheses.

H(3) The relationship between course convenience and satisfaction will be moderated by course format. Online students will perceive a stronger relationship between convenience and satisfaction than students in other course formats.

H(4) The relationship between course convenience and perceived learning will be moderated by course format. Online students will perceive a stronger relationship between convenience and learning than students in other course formats.

On the other hand, students in the face-to-face format may perceive satisfaction and learning to be greater not as a result of convenience but as a result of other factors such as interaction with the instructor and other students (Nemanich, Banks, & Vera, 2009). Because of the pleasurable classroom experience and the close contact with skilled professors, the importance of convenience as a determinant of course satisfaction and perceived learning should be lower than in other course formats.

H(5) The relationship between course convenience and satisfaction will be moderated by course format. Students in the face-to-face format will perceive a weaker relationship between convenience and satisfaction than students in other course formats.

H(6) The relationship between course convenience and perceived learning will be moderated by course format. Students in the face-to-face format will perceive a weaker relationship between convenience and learning than students in other course formats.

## **Method**

Data collection. Our data were drawn from an AACSB accredited undergraduate business program in the eastern US. Students were a mix of full-time and part-time students. We asked all students taking the capstone course to participate in an online survey towards the end of the course. As an incentive, the professors offered a small extra credit bonus for participating in the survey project. All professors had more than 10 years of experience teaching strategic management.

We chose to study a capstone strategic management course for three reasons. First, as befits all senior-level capstone courses, strategic management is an important part of our business curriculum. It requires a high level of cognitive functioning on the part of students and faculty (Kachra & Schneitz, 2008; Richmond, Banerjee, & White, 2008). Second, the course requires students to balance convenience with perceived learning and satisfaction. The course's high cognitive demand means that the capstone strategy course is normally offered in a face-to-face format because of the opportunities this format presents for student-professor interaction, collaborative learning among student peers, and institutional support. However, we also offer some sections in online and hybrid format, partially in response to institutional demands for efficiency and student demands for convenience. Third, we teach comparable sections of strategic management in all three learning formats, so the analysis is feasible.

Data were collected from students during four semesters from Spring 2012 to Spring 2015. The survey was administered late in the semester through Survey Monkey®. The response rate was over 90% for all sections, and 1405 students attempted the survey. We based our analysis on completed responses, of which 40% were from online courses, 29% were from blended, and 31% were from face-to-face. All variables were available for 1165 students. The models with satisfaction as a dependent variable had 1187 complete responses, and the perceived learning models had 1174.

Variables. Our survey included balanced Likert scaled items measuring perceptions (1=strongly disagree to 5=strongly agree). We aimed to develop measures for control variables that Arbaugh, Hwang and Pollack (2011) suggest are needed to account for background effects 'which may or may not be of primary interest to a study but nevertheless could impact on learning outcomes' (p. 47).

Perceptual measures in the survey included course satisfaction, perceived learning, convenience, interaction, and importance of the professor. For each variable, we used principle component analysis to combine raw data from multiple items, as is appropriate for reflective measures. These composite variables will best capture the variance of the individual items (Wang & Li, 2010) and are in standardized form (mean of 0, standard deviation of 1). We adapted questions from Alavi (1994), Babb, Stewart and Johnson (2010), Arbaugh (2000), and Sanford, Ross, Rosenbloom, Singer, and Luchsinger (2014) for perceived learning, convenience, and interaction among students and with the course instructor. The wording of the items and the composite item reliability, Cronbach's alpha, are shown in Table 1. We also tested and confirmed item

unidimensionality.

**Table 1:**  
*Perceptual variables*

Perceptual variable	Survey items
Satisfaction (three items), Alpha = .859	I was very satisfied with this course. I feel that this course served my needs well. The quality of the course compared favorably to my other business courses.
Perceived Learning (six items), Alpha = .934	In this course I increased my skill in critical thinking In this course I increased my ability to integrate facts In this course I gained the ability to critically analyze issues In this course I became more confident in expressing ideas In this course I learned to value other points of view In this course I learned to interrelate important topics and ideas
Convenience (five items), Alpha = .825	This class allowed me to arrange my work for the class more effectively. Taking this class allowed me to spend more time on non-work-related activities. Taking this class allowed me to arrange my work schedule more effectively. Taking this class saved me a lot of time commuting to class. Taking this class allowed me to take a class I would otherwise have to miss.
Interaction (five items), Alpha = .790	I felt that the quality of class discussions was high throughout the course. It was easy to follow class discussions. Student-to-student interaction was more difficult in this course than in other business courses. (R) Class discussions in this class were more difficult to participate in than in other business courses. (R) Student-to-instructor interaction was more difficult than in other business courses. (R)

(R) = the scale was reversed

Clark & Latshaw (2013) found that student perceptions of individual professors, such as likeability, organization of the course, and clarity of presentation, have affected students' perceived learning and overall course evaluations. To control for the effect of student perceptions of the professor on their overall course evaluations, we include in our models student responses to the single item, 'What matters most is the professor.'

Table 2 shows the average values of all variables for students in each course format as well as the average and standard deviation for the total sample. As expected, online courses were viewed as most convenient, and face-to-face courses were viewed as having the most interaction and the greatest emphasis on the professor. Blended format students were viewed as intermediate. These patterns are consistent with our expectations for each course format (Metzgar, 2014). Perceived learning and course satisfaction were rated highest for face-to-face, lowest for online, and in-between for blended. The difference between face-to-face and blended was significant for perceived learning and course satisfaction, while the difference between blended and online was not significant.

We used multiple regressions analysis to test hypotheses while controlling for factors that may influence students' perceived learning and satisfaction with a course.

Interaction effects were analyzed using centered interaction variables introduced into the model (Aiken & West, 1991; Kraemer & Blasey, 2004; Kraemer, Wilson, Fairburn & Agras, 2002; Muller, Judd, & Yzerbyt, 2005).

Models were tested for conformance with the assumptions of multiple linear regression. Variance inflation factors (VIF) for all variables were tested for multicollinearity. The maximum VIF for any one model is below 3, well below 10, the level that would significantly affect parameter variances (Cohen et. al., 2003; Kutner, Nachtsheim & Neter, 2004). In addition, residuals were examined to test for the effect of non-spherical disturbances (Greene, 2011).

Adding interaction terms to the regression models allowed testing for the moderating effect of course format on the relationship between convenience and perceived learning/satisfaction (Baron & Kenny, 1986). In post-hoc analyses, the variables were centered before creating the interaction terms.

Table 3 shows a correlation matrix of key variables. It demonstrates convergent and discriminant validity of the perceptual measures. The reliability coefficients are all greater than any of the correlations between variables, which indicates the uniqueness of each construct (Gregory, 2007). The highest correlation between any of the perceptual variables is between perceived learning and satisfaction ( $r = .64$ ), and the lowest reliability coefficient is for interaction ( $\alpha = .79$ ). These statistics suggest that our perceptual variables were not overly driven by method variance, and that learners were able to distinguish, in their response patterns, the differences between the concepts.

## **Results**

As shown in Tables 4 and 5, all models explained a significant amount of variance in the left hand variable. To test hypothesis 1, we used course satisfaction as the dependent variable and included convenience and other control variables on the right-hand side. The significance of the coefficient for convenience tests the hypothesis. Inclusion of independent variables controlled for important possible influences on course satisfaction other than convenience, thereby isolating the relationship of interest. In addition, inclusion of the perceptual variables controlled for method variance. The result, shown in Model 1 of Table 3, is strong support for the hypothesis. The data show a strong and significant relationship between convenience and course satisfaction in both the bivariate correlation and the regression analyses.

**Table 2:**  
*Descriptive Statistics*

Variable	Mean F2F	Mean Blended	Mean Online	Overall Mean	Overall St. Dev.
Satisfaction	.21**	-.06	-.14	.01	.99
Perceived learning	.18**	-.09	-.14	.00	1.0
Female	.39	.45	.47	.43	.50
Expected course grade	3.3**	3.2	3.1**	3.20	.54
Management major	.18	.22	.21	.20	.40
Marketing major	.25	.26	.19*	.24	.43
Finance major	.15*	.09	.17**	.13	.34
Accounting major	.19	.23	.23	.22	.41
Previous hybrid courses	.63*	.55	.68**	.62	.48
Low online experience	.45*	.54	.17**	.39	.49
High online experience	.21	.20	.51**	.30	.46
Log of age	3.1	3.1	3.2**	3.15	.16
Graduating this semester	.55	.59	.70**	.61	.49
Interaction in the course	.52**	-.10	-.60**	.00	1.0
Professor matters most	3.9**	3.4	3.1**	3.48	1.1
Semester 2012	.13**	.53	.32**	.30	.46
Semester 2014 and 2015	.57**	.28	.41**	.44	.50
Number of courses this semester	4.7	4.6	4.3**	4.55	1.1
Hours worked per week	19.0	20.5	27.1**	22.0	13.2
Convenience	-.36**	.17	.43**	.04	.94
Percent of sample	40	29	31		

N=1165

\*  $p < .05$ , \*\*  $p < .01$ , two tailed test of difference from blended format

To test hypothesis 2, we repeated the analysis using perceived learning as the dependent variable. As shown in Model 1 of Table 5, the result is again strong support for the hypothesis. As for course satisfaction, this relationship holds for both the bivariate and multiple regression analyses.

To test hypothesis 3, we used moderated regression analysis. If online students valued convenience more than face-to-face or blended format students, then the interaction term should be positive. However, as shown in Model 2 of Table 4, the interaction variable between convenience and online course format is not significant. The result of the analysis is no support for hypothesis 3. Similarly, examination of Model 2 of Table 5 shows no support for hypothesis 4. Our analysis shows that online students do not perceive a stronger association between convenience and perceived learning than students in other course formats.

**Table 3:**  
*Correlations among key variables*

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Satisfaction	1.00										
2. Perceived learning	.64*	1.00									
3. Female	-.01	.04	1.00								
4. Expected course grade	.20*	.15*	-.06*	1.00							
5. Graduating this semester	-.03	-.06*	.04	.02	1.00						
6. Interaction in the course	.50*	.45*	-.05	.19*	-.05*	1.00					
7. Professor matters most	.55*	.37*	-.05*	.12*	-.06*	.45*	1.00				
8. Number of courses this semester	-.03	-.03	-.01	.03	-.02	-.02	.02	1.00			
9. Hours worked per week	-.00	-.04	.01	-.08*	.17*	-.08*	-.10*	-.338	1.00		
10. Convenience	.46*	.25*	.01	.01	.12*	-.01	.12*	-.08*	.07*	1.00	
11. Face-to-face format	.17*	.14*	-.06*	.15*	-.10*	.43*	.28*	.09*	-.18*	-.34*	1.00
12. Online format	-.10*	-.09*	.05	-.16*	.13*	-.40*	-.27*	-.14*	.27*	.28*	-.55*

\*  $p < .05$

Similar tests for hypotheses 5 and 6 are shown in Model 3 of Tables 4 and 5. Again there is no support for the hypotheses. Face-to-face students were not found to have a different association between convenience and satisfaction or perceived learning than students in other course formats.

We tested the robustness of our analyses by varying the model specifications. We ran the analyses without the blended students. We also took out the insignificant variables and all the non-perceptual variables. For all these variations, the results remained the same. Students' perceived association between convenience and course satisfaction/perceived learning remained similar across all course formats.

There are limitations to these findings. Our sample was from one academic institution and focused on senior, undergraduate students in a capstone course in strategic management. Extension of our results to other contexts, such as introductory courses, other disciplines' courses, or other institutions, remains to be addressed by further research. Our measures of the perceptual variables may be influenced by method variance or other inaccuracies in students' perceptions. In our interpretation of our findings, we suggest that the insignificant findings for differences between students in various course formats is a real effect and not the result of low power in our methodology to detect significant differences.

**Table 4:**  
*Regression analysis, Satisfaction as the dependent variable*

Variable	1	2	3	4
Constant	-1.59** (.47)	-1.57* (.47)	-1.59* (.47)	-1.59** (.47)
Female	.02 (.04)	.02 (.04)	.02 (.04)	.02 (.04)
Expected course grade	.19** (.04)	.19** (.04)	.19** (.04)	.19** (.04)
Graduating this semester	-.09* (.04)	-.09* (.04)	-.09* (.04)	-.09* (.04)
Interaction in the course	.38** (.02)	.37** (.02)	.38** (.02)	.38** (.02)
Professor matters most	.22** (.02)	.22** (.02)	.22** (.02)	.22** (.02)
Number of courses this semester	.02 (.02)	.02 (.02)	.02 (.02)	.02 (.02)
Hours worked per week	.004* (.002)	.004* (.002)	.004* (.002)	.004* (.002)
Convenience	.39** (.02)	.37** (.03)	.39** (.03)	.39** (.02)
Face to face format	.13* (.05)	.12* (.05)	.13* (.06)	.13* (.05)
Online format	.10 (.06)	.07 (.06)	.10 (.06)	.10 (.06)
Convenience X Online		.07 (.05)		
Convenience X Face-to-face			.00 (.05)	
Convenience X hours worked				-.00 (.00)
Adjusted R Square	.52	.53	.52	.52
N	1187	1187	1187	1183

Included in the model are variables for major field of study (management, marketing, finance, and accounting), experience with blended format courses, experience with online courses, log of age, and year taking the course. None of these variables had statistical significance.

Standard errors in ().

\*  $p < .05$ ; \*\*  $p < .01$ .

## **Discussion**

We investigated students' perceptions of convenience and how these related to course satisfaction and perceived learning. We found that students strongly associated convenience with both course satisfaction and perceived learning. With respect to theory, this finding demonstrates that students value convenience in higher education even though the service may a) be highly-valued, b) require highly-skilled labor, and c) be pursued for pleasure. Our findings suggest that these factors are not compelling for students. Additionally, our findings suggest that students face time pressure and stress in their lives, which may require them to seek convenience in order to increase the feasibility of completing the bachelor's degree program.

**Table 5:***Regression analysis, Perceived learning as the dependent variable*

Variable	1	2	3	4
Constant	-1.45* (.62)	-1.45* (.62)	-1.47* (.62)	-1.45* (.62)
Female	.14** (.05)	.14** (.05)	.14** (.05)	.14** (.05)
Expected course grade	.12* (.05)	.12* (.05)	.12* (.05)	.12* (.05)
Graduating this semester	-.11* (.05)	-.11* (.05)	-.11* (.05)	-.11* (.05)
Interaction in the course	.37** (.03)	.38** (.03)	.38** (.03)	.38** (.03)
Professor matters most	.17** (.03)	.17** (.03)	.17** (.03)	.17** (.03)
Number of courses this semester	-.00 (.02)	-.00 (.02)	-.00 (.02)	-.00 (.02)
Hours worked per week	.00 (.00)	.00 (.00)	.00 (.00)	.00 (.00)
Convenience	.24** (.03)	.25** (.04)	.22** (.04)	.25** (.03)
Face to face format	.03 (.07)	.03 (.07)	.04 (.07)	.04 (.07)
Online format	.14 (.07)	.14 (.08)	.14* (.07)	.16* (.07)
Convenience X Online		-.00 (.06)		
Convenience X Face-to-face			.07 (.06)	
Convenience X hours worked				-.005** (.002)
Adjusted R Square	.30	.30	.30	.31
N	1174	1174	1174	1174

Included in the model are variables for major field of study (management, marketing, finance, and accounting), experience with blended format courses, experience with online courses, log of age, and year taking the course. None of these variables had statistical significance. Standard errors in ().

\*  $p < .05$ ; \*\*  $p < .01$ .

We did not expect to find that the strength of these relationships would be similarly strong for students in all course formats. However, in each course format, course satisfaction and perceived learning were significantly associated with course convenience. Convenience may be a factor that generally motivates students across all formats.

Desirable courses, therefore, may incorporate convenience regardless of course format. For online courses, convenience may hinge on the ease with which course technology allows students access to course material and course activities. For face-to-face courses, convenience may relate to desirable scheduling, ease and accessibility of parking and shuttle services, and location close to students' places of employment. For blended format courses, all these factors apply. In addition, students may value the quality of course activities; the minimization of busywork.

In a post-hoc analysis, we investigated various other possible moderators on the relationship between convenience and satisfaction and perceived learning. As shown in Model 4 of Table 5, there was a significant moderating effect of hours worked per week on the convenience-perceived learning relationship. The effect was negative, suggesting that the link between convenience and perceived learning was stronger for students who worked fewer hours. This effect is consistent with what we would expect from students who value learning. As work demands increase, students may become sufficiently stressed that the learning payoff from convenience gets lower. As shown in Model 4 of Table 4, there was no similar relationship with respect to course satisfaction.

## **Conclusion**

As colleges and universities seek ways to make their courses more attractive to students, creating online courses, by itself, may not be a magic bullet. Convenience is a course attribute that can, and should, be addressed independently of course format.

The challenge for online courses in generating the perceived benefits of satisfaction and learning do not depend solely on being convenient. Online courses need to be perceived as convenient, but also provide a) interaction with other students and b) impactful professors, both of which significantly associate with students' course satisfaction and perceived learning. The appeal lies not only in being convenient, but also in generating value that students want in their courses.

To the extent that academic administrators focus on increasing student convenience, this study suggests that more traditional face-to-face classroom formats retain significant potential for increasing the student perception of learning through making such classes more convenient. It may be a mistake for administrators to think of convenience as a technology problem and that consequently increasing online access is the same thing as increasing course convenience.

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