

# Wright College Academic Department/Program Assessment Project Fall 2015

## **WHAT?**

The assessment provided by the department was driven by the desire to increase the pass rate among students in Business 182, Managerial Accounting, Exit Exam. Students were assigned a new tool provided by Pearson Publishing which is a smart self-assessment students can take after reading the chapter known as Dynamic Study Module (DSM). DSMs are computer adaptive tools that allow for approximate answers by students. Students have the choice of double clicking on a choice to signal strong belief it is the correct answer. Alternatively, students can click one time on two different answers indicating a 50-50 belief one of the two is correct. In addition, students may be provided fill-in the blank questions testing their ability to recall key concepts. The software will re-test students in areas in which response indicate low levels of comprehension. Each attempt at a particular DSM will produce a different version of the question to prevent extend the nuances in the concept that extend the application of the concept in various scenarios.

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## **WHY?**

BUS 182 is an IAI transferable course that requires students to pass an Exit Exam to earn credit for the course regardless of their individual instructor's grade assigned within the course. Passing the Exit Exam ensure quality control of student learning and standardization of course content coverage. In addition, the Exit Exam provides students with a hurdle they may encounter when taking professional certification exams in fields such as: Accounting, Finance, Insurance, Human Resources.

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## **HOW?**

Prof. Paul Croitoru had the opportunity to work with DSMs while teaching an economics course in Spring 2015 semester. In Fall of 2015, Pearson added the DSMs to its series of accounting textbooks. This provided an opportunity to assess the advantages of assigning this tool to aid students in preparing for Exams and to award points for reading the textbook; lack of advance ready by students is a common issue

among instructors in the department. DSMs allow for unlimited repetition while providing enough adaptation to the individual student's learning progress thereby preventing boredom by answering the same rote questions.

BUS 182 sections EG and FH were selected for this project. DSMs were assigned for each chapter relevant to the course and due the day before material was to be covered in class.

A survey at the end of the course, indicates students that completed a DSM before the material was covered in the classroom perceived the DSM improved their understanding of the topics presented in the lecture. In addition, survey feedback indicates students perceived that completed a DSM after the due date was a poor strategy. This group of students believe they would have been better prepared for class if they completed the DSM in a timely manner. The survey was conducted using Survey Monkey. Pearson publishers handled the survey and worked in conjunction with Prof. Croitoru and the local textbook presentative, Jason Wiedenhoeft.

Exit Exam scores for BUS 182 Fall 2015 were compared to Exit Exam scores from Spring 2015 to determine if there was a significant increase in the pass rate. An F-test was used to compare pass-fail rates for the two semesters in both of Prof. Croitoru's BUS 182 courses.

Given the late start and first run at the DSMs for accounting, this semester Prof. Croitoru has incorporated them in the course from the beginning and assigned greater weight to those assignments. In addition late assignments will have points deducted from the overall score. This aggressive approach was not used in Fall 2015 because the product was new. Student feedback for the first week of BUS 182 this semester has been unanimous in requesting that more DSMs be available throughout the course.

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## **WHAT WE FOUND**

Professor Croitoru will collect the data for all of his Bus 182 courses and run statistical test at the end of the semester to determine the impact of

assigning DSMs. Results of the F-test on the impact of DSMs on Exit Exam failed to yield a statistically significant difference. The observed F statistic was 0.95. The critical F statistic is 1.68 with 45 degrees of freedom in the numerator and 39 degrees<sup>1</sup>. Given the Critical F of 1.68 the value we observed does not fall in into the rejection region of a significant difference between the scores of pre-post DSM exposure in preparation for the Exit Exam.

However, the survey provided strong support among students in the added-value of DSMs to their understanding of the material. Prof. Croitoru is planning of running statistical tests comparing unit levels exams – groups of chapters – to determine if impacts can be observed at this level of granularity. Exam from previous versions of BUS 182 will be given to students and the results will be examined using the F-test to determine an statistically significant different in pass rates of the Exit Exam

Survey responses to Question 1, indicate that more than 60 percent of students spent at least 2 or more hours per work at My Accounting Lab (MAL). In addition 89.37 percent of respondents indicated they agreed or strongly agrees with the following statement: “My understanding of the course material increased as a result of using MyAccountinglab [sic].” Question 5 of the survey directly related to DSMs had 91.29 percent of respondents Agree or Strongly Agree with the statement “The test-review-retest pattern of the Dynamic Study Modules helped me to learn and remember chapter content.”



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<sup>1</sup> Exact critical value of F-statistic retrieved on 02-02-2016 from:  
<<http://www.danielsoper.com/statcalc3/calc.aspx?id=4>>

Spring 2015 EG		Fall EH	
	Exit Exam		Exit Exam
1	0.7142857	1	0.66
2	0.7428571	2	0.66
3	0.5714286	3	0.66
4	0.6	4	0.77
5	0.5857143	5	0.83
6	0.5142857	6	0.76
7	0.6571429	7	0.89
8	0.7857143	8	0.5
10	0.6857143	9	0.63
11	0.5285714	10	0.63
12	0.6571429	11	0.64
13	0.7428571	12	0.54
14	0.7285714	13	0.5
15	0.3714286	14	0.5
16	0.6571429	15	0.61
17	0.7571429	16	0.74
18	0.7	17	0.86
19	0.8857143	18	0.58
20	0.7142857	19	0.83
21	0.9428571	20	0.64
22	0.6714286	21	0.5
23	0.8142857	22	0.5
24	0.5	23	0.6
25	0.6285714	24	0.64
26	0.8285714	25	0.79
27	0.6142857	26	0.6
28	0.6714286	27	0.66
29	0.5428571	28	0.57
30	0.4428571	29	0.69
31	0.7285714	30	0.86
32	0.6142857	31	0.89
33	0.7285714	32	0.59
34	0.5	33	0.5
35	0.7285714	34	0.53
36	0.6142857	35	0.57
37	0.8857143	36	0.61
38	0.6857143	37	0.5
39	0.6285714	38	0.71
40	0.6285714	39	0.5
41	0.6714286	40	0.71
42	0.7428571		
43	0.6857143		
44	0.6142857		
45	0.5		

**F-Test Results**

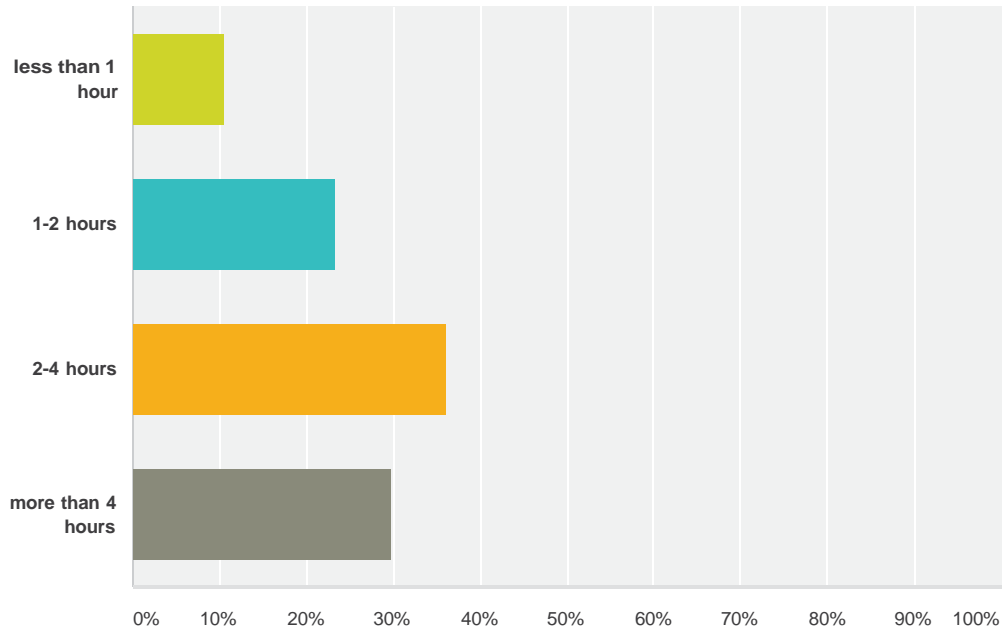
**F-Test Two-Sample for Variances**

	Variable 1	Variable 2
Mean	0.668944099	0.64875
Variance	0.013798679	0.01458
Observations	46	40
df	45	39
F	0.946382321	
P(F<=f) one-tail	0.426789428	
F Critical one-tail	0.600914421	

<b>46</b>		0.7857143
<b>47</b>		0.7714286

### Q1 How many hours per week did you spend in MyAccountinglab?

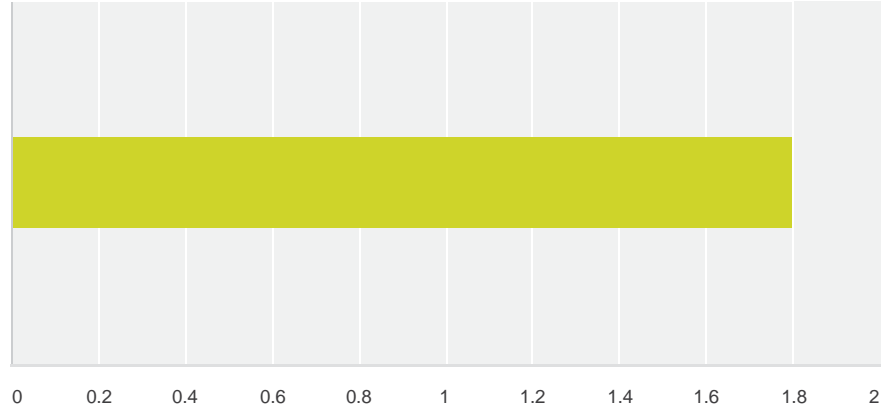
Answered: 47 Skipped: 0



Answer Choices	Responses
Less than 1 hour	10.64% 5
1-2 hours	23.40% 11
2-4 hours	36.17% 17
more than 4 hours	29.79% 14
<b>Total</b>	<b>47</b>

**Q2 My understanding of the course material increased as a result of using MyAccountinglab.**

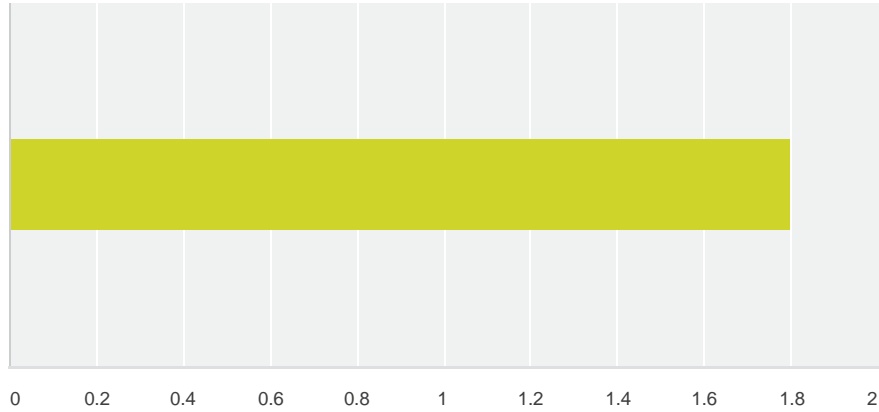
Answered: 47 Skipped: 0



	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	Weighted Average
	40.43% 19	48.94% 23	10.64% 5	0.00% 0	47	1.70

**Q3 MyAccountinglab provided additional resources that helped me learn more than I would have from more traditional pencil and paper homework.**

Answered: 47 Skipped: 0

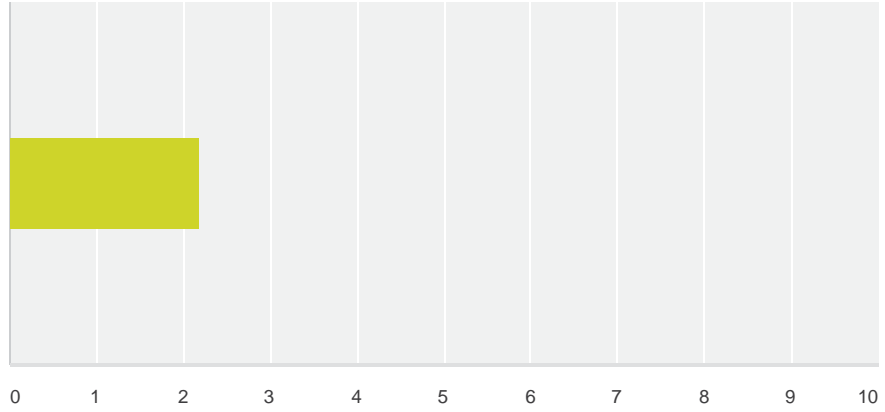


	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	Weighted Average
	36.17% 17	55.32% 26	6.38% 3	2.13% 1	47	1.74



**Q4 When unable to start or complete a homework problem, I used the available learning aids (i.e., Help Me Solve This) for assistance.**

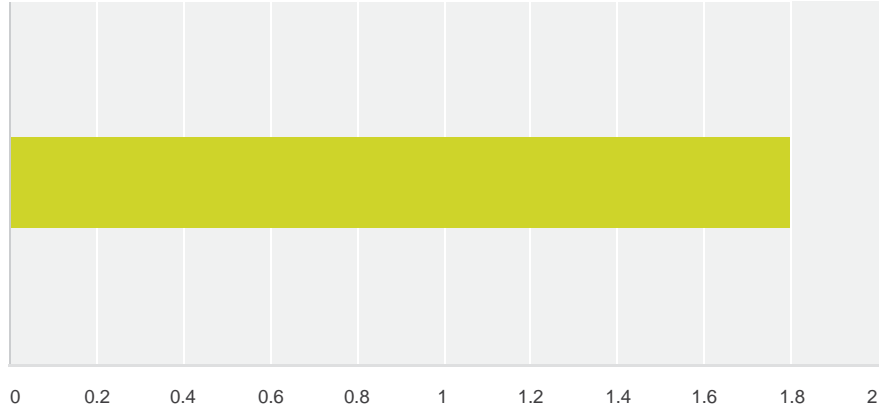
Answered: 47 Skipped: 0



	Always	Usually	Sometimes	Rarely	Total	Weighted Average
	38.30%	25.53%	14.89%	21.28%		
	18	12	7	10	47	2.19

**Q5 The test-review-retest pattern of the Dynamic Study Modules helped me to learn and remember chapter content.**

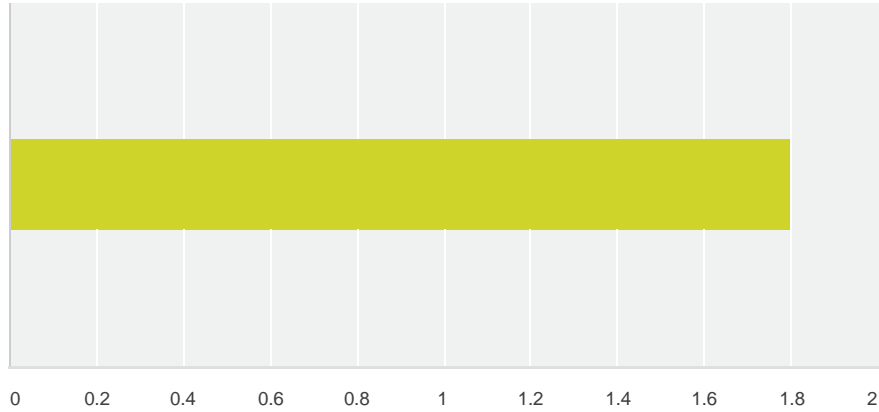
Answered: 47 Skipped: 0



	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	Weighted Average
	44.68% 21	46.81% 22	8.51% 4	0.00% 0	47	1.64

**Q6 The use of confidence levels when answering questions in the Dynamic Study Modules ('I am sure', 'I am partially sure', 'I don't know yet') helped me identify chapter content I needed to focus on.**

Answered: 47 Skipped: 0



	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	Weighted Average
	34.04%	53.19%	10.64%	2.13%		
	16	25	5	1	47	1.81

**Q7 Explain how the Dynamic Study Modules did or did not help you to understand the chapter material.**

Answered: 35 Skipped: 12

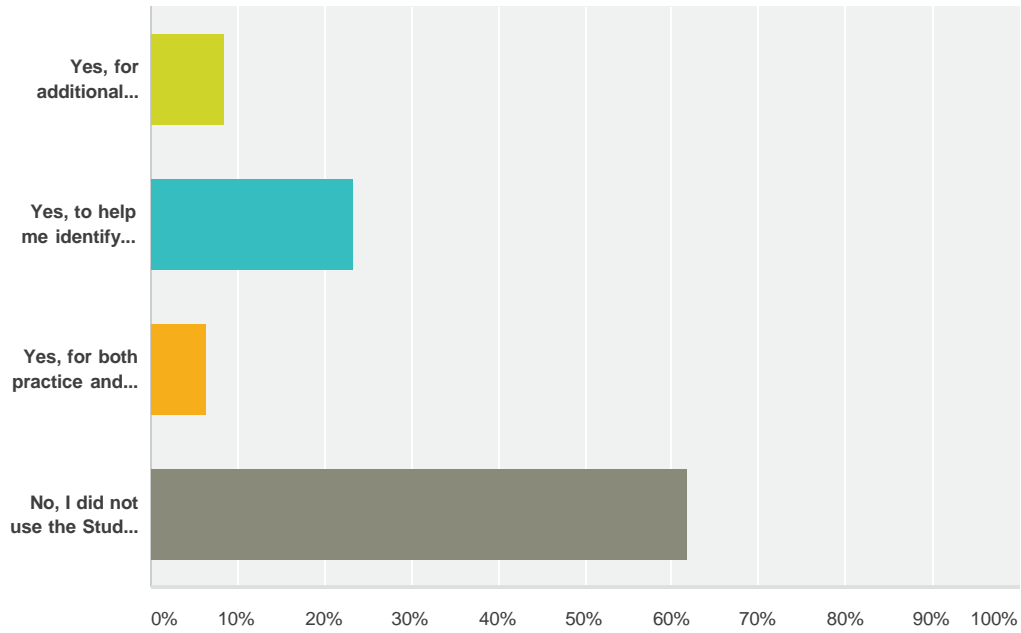
#	Responses	Date
1	it helped it alpt for upcomming homework and quizzes.	12I9I2015 8:42 AM
2	Main points	12I9I2015 1:18 AM
3	personally the Dynamic Study Modules helped me understand the content more than the homework did	12I9I2015 1:02 AM
4	showe me what is important to learn	12I8I2015 11:22 PM
5	there should be more mathematical problems with explanations	12I8I2015 12:09 PM
6	they modules helped, but shoukd have more mathematical questions and explanations.	12I8I2015 11:59 AM
7	If I don't understand a question and get it wrong, it goes over the right answer for me.	12I7I2015 8:16 PM
8	it didnt help me because it was harder for me to actually remember something	12I7I2015 8:16 PM
9	They helped my focus on areas I didnt understand, only allowing progression once I proved I understood the material.	12I7I2015 9:29 AM
10	Because it is detailed explanation.	12I6I2015 3:53 PM
11	They gave me an idea of what was the topic and helped me in doing it.	12I6I2015 12:30 AM
12	It helped me a lot	12I5I2015 8:34 PM
13	some what	12I5I2015 10:06 AM
14	doing the modules before the class made me reference back to the modules so in class i understood more. It also helped me pay more attention of question i had struggle with in the module	12I5I2015 1:35 AM
15	They werent very helpful	12I4I2015 11:43 AM
16	help a lot with the samples	12I4I2015 9:49 AM
17	The Dynamic Study Modules help me understand the chapter material the way it help me understand it is by showing examples of how to solve the problem when I was struggling with a problem.	12I3I2015 9:30 PM
18	The helped me because every time i don't know the answer, it shows me how to do it step by step with explanation.	12I3I2015 12:02 PM
19	It helped me with homework	12I3I2015 2:11 AM
20	Dynamic study modules helped me a lot understanding some aspects	12I2I2015 7:36 PM
21	It was ok. It repeats itself over and over during the questions to make sure you understand it.	12I2I2015 12:05 PM
22	Helped me prep for my exams	12I2I2015 11:57 AM
23	The questions asked never changed. It was easy to get the correct answer when seeing the same problems repeatedly.	12I1I2015 6:59 PM
24	The fact that you can pin point what you really need to focus on	12I1I2015 5:38 PM
25	Dynamic study module is also a great learning way to increase the study chapter and homework. It give us the example that how the homework is going to be. It is a more practical module.	12I1I2015 5:01 PM
26	They helped me prep for an exam.	12I1I2015 3:27 PM
27	They reviewed the most important topics which was extremely helpful.	12I1I2015 3:04 PM
28	I felt like it did not help me at all. All I would do to get it done fast was answer it wrong, receive the correct answer, than put in the correct answer, and receive a 100% on every module every time. It would have been better if it showed me how I got the answer, like the modules does but, instead give me a different problem the next time I attempt it. Personally I feel that there should either be the homework or the module not both.	12I1I2015 2:44 PM
29	Chapter summary	12I1I2015 11:51 AM

## Wright College MyAccountingLab Student Survey

30	They are hard to understand and and the wording intimidate me and makes me give up	12/11/2015 10:37 AM
31	It reinforced material i understood as well as material i needed help with.	11/30/2015 11:00 PM
32	it helped me a lot because it showed me the problem step by step	11/30/2015 10:33 PM
33	The Modules help me learn things before the chapter was cover.	11/30/2015 8:20 PM
34	they helped me by focusing on the main points of the chapter	11/30/2015 7:48 PM
35	It explained why i got a the problems wrong which helped me understand the concepts.	11/30/2015 7:10 PM

### Q8 Did you use the optional Study Plan? If so, how?

Answered: 47 Skipped: 0



Answer Choices	Responses
Yes, for additional practice only.	8.51% 4
Yes, to help me identify chapter material that I was struggling with.	23.40% 11
Yes, for both practice and to identify chapter material I was struggling with.	6.38% 3
No, I did not use the Study Plan.	61.70% 29
<b>Total</b>	<b>47</b>

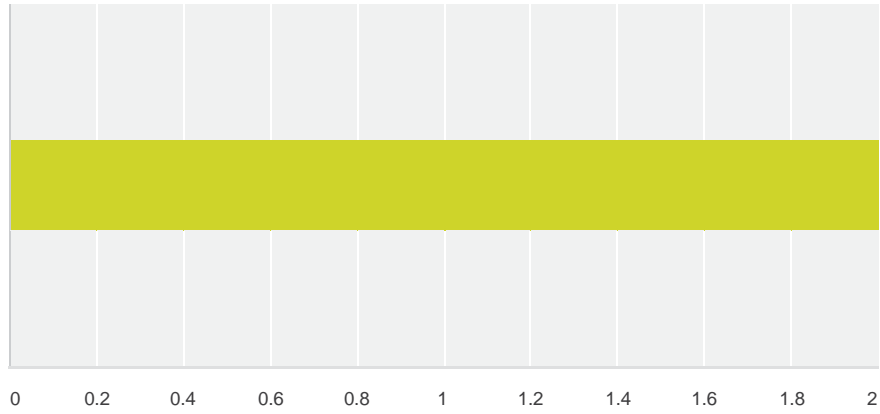
**Q9 If you used the Study Plan, explain how it did or did not help you in understanding the concepts, or, when studying for exams?**

Answered: 20 Skipped: 27

#	Responses	Date
1	The study plan is a unique method to help me on my exams.	12/9/2015 8:42 AM
2	Cant say if I had gotten some tutoring my grade would have excelled	12/9/2015 1:02 AM
3	n/a	12/8/2015 12:09 PM
4	n/a	12/8/2015 11:59 AM
5	it sort of help understanding some problems	12/7/2015 8:16 PM
6	It has specific examples.	12/6/2015 3:53 PM
7	it focused on the areas I struggled with	12/5/2015 11:43 PM
8	studied what i needed	12/5/2015 10:06 AM
9	Just the minor concepts	12/4/2015 11:43 AM
10	always recommendable to find out what are your needs	12/4/2015 9:49 AM
11	The study plan help me understand more on how to solve the problems that might have been in the exams.	12/3/2015 9:30 PM
12	helped me to solve some exercises	12/2/2015 7:36 PM
13	i used it to review concepts before the exams	12/2/2015 3:30 PM
14	it is a very smart tool to help you track your progress and tell you where you need to do more work.	12/2/2015 11:57 AM
15	I haven't use study plan a lot because I believe it is little harder than homework.	12/1/2015 5:01 PM
16	I wish I had more time, it is very smart and it tracks everything you do and your scores. After it tells you what you need to work on.	12/1/2015 3:27 PM
17	The study plan is not graded. So what is the point in doing the study plan if it is not graded by your Professor. I know the study plan is there to help you study but, I already have to worry about the module now and the homework. Anyways when you do the homework or the module and get an answer wrong, it breaks down for you on what you did wrong. So that is my replacement of the study plan.	12/1/2015 2:44 PM
18	It showed me step by step problems	11/30/2015 10:33 PM
19	The Study Plan help me learn the material when I did not understand the problem.	11/30/2015 8:20 PM
20	I did not use the study plan	11/30/2015 7:48 PM

**Q10 Use of MyAccountinglab positively impacted my exam scores.**

Answered: 47 Skipped: 0

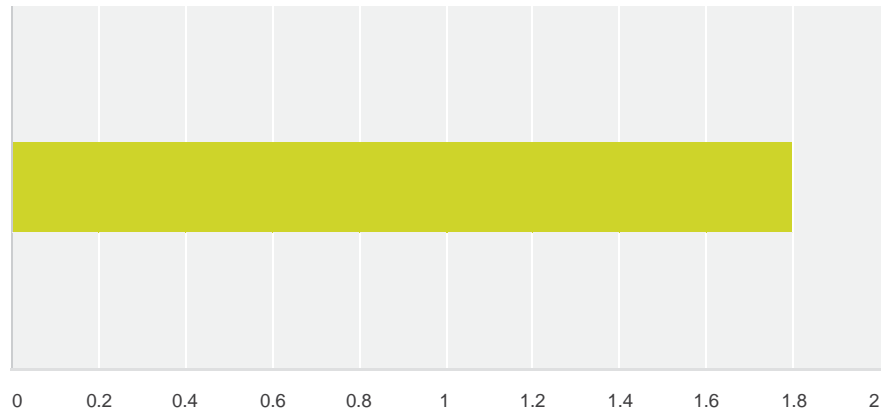


	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	Weighted Average
	29.79%	57.45%	12.77%	0.00%		
	14	27	6	0	47	1.83



**Q11 I would recommend use of MyAccountinglab to another student.**

Answered: 47 Skipped: 0



	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	Weighted Average
	44.68%	44.68%	10.64%	0.00%		
	21	21	5	0	47	1.66

Wright College MyAccountingLab Student Survey

**Q12 What did you like most about MyAccountinglab and why?**

Answered: 40 Skipped: 7

#	Responses	Date
1	Variety of questions helped my better understanding of chapters. Every question provides 3 attempts to retry and recheck my work.	12/9/2015 2:53 PM
2	The whole set up is straightfoward nothing complicated very simple is the best way fpr students to learn.	12/9/2015 8:44 AM
3	Videos, and question hints.	12/9/2015 1:18 AM
4	I liked that if you messed up on a problem you would be able to try it again. Even if it is with different numbers but being able to match what ya did wrong to do better the next time.	12/9/2015 1:04 AM
5	help me understand the concept of the course and practice problems were available	12/8/2015 11:23 PM
6	the multiple attempts	12/8/2015 12:10 PM
7	In the homework problems there was a option for help if I didn't understand something.	12/7/2015 8:23 PM
8	the test I can look up help for it	12/7/2015 8:17 PM
9	It made it very easy to access materials related the lesson plan. If i didn't understand a subject area, it was easy to find the reading material for it.	12/7/2015 9:32 AM
10	there was useful information	12/6/2015 5:31 PM
11	It has different forms to help the student.	12/6/2015 4:00 PM
12	What I liked most was the study modules, they really helped me understand the chapter better.	12/6/2015 2:19 AM
13	It tries letting you know what you got wrong and how you could potentially solve it.	12/6/2015 12:30 AM
14	Explanations of the wrong answers in Dynamic Study Modules. Ability to use Chapter Resources and Help me Solve This materials	12/5/2015 11:46 PM
15	The videos because it made me understand more the course objectives	12/5/2015 8:35 PM
16	problems	12/5/2015 10:07 AM
17	The problems and the help it would give when i was stuck on a question. It is easy to use	12/5/2015 1:36 AM
18	NA	12/4/2015 11:44 AM
19	new tool to learn, always accesible	12/4/2015 9:51 AM
20	What I like most about MyAccountingLab was that when you do a Chapter homework not only you have problems to solve but as well a option setting that you can get help on explaining or demonstrating on how to solve the problem, When a person might be struggling with a chapter or a problem.	12/3/2015 9:36 PM
21	It has many different things and ways to help me learn.	12/3/2015 12:05 PM
22	That it's easy to use and paperless no worries about loosing your homework	12/3/2015 2:13 AM
23	It had all the material I needed to understand for my test. The study modules were very helpful	12/2/2015 7:57 PM
24	a lot example you could test yourself and it is a good phase for preparing for exams	12/2/2015 7:38 PM
25	The Videos, made material more understanding	12/2/2015 3:34 PM
26	That it gave you options for your answers	12/2/2015 12:05 PM
27	I liked that its online and you can access it at any time.	12/2/2015 11:58 AM
28	MyAccountingLab is easily accessible. I preferred doing homework online rather than submitting handwritten homework in class.	12/1/2015 7:03 PM
29	the fact that there was many ways to get help .	12/1/2015 5:40 PM

## Wright College MyAccountingLab Student Survey

30	I like the most about MyAccountingLab is that it is a great way that we can do more practice on home work and have an idea how to enter the data and value in accounts.	12/11/2015 5:04 PM
31	I liked that it was a more interactive way of going through the material rather than just reading the text book. It gave countless examples for practice, which were a lot more than the one provided in the book. It also allowed me to see what I got wrong for any particular homework.	12/11/2015 3:06 PM
32	What I like most about MyAccountingLab is that the professor can put homework and tests on it so that the professor does not have to give out homework assignments. Its nice because the professor can also set time periods on how long the test can be. For the professor being able to structure the test to a particular classes needs is great. Now when I take my tests I feel less stress on getting the test done in time. Also it is my option on when I have time to take the test and I do not have to go to school to take it. I can manage my school schedule and work when taking the tests and homework.	12/11/2015 3:03 PM
33	It has its help me solve this function that will help you understand better the problem	12/11/2015 11:52 AM
34	Videos.	12/11/2015 10:38 AM
35	dynamic study modules.	12/11/2015 10:26 AM
36	I liked that you were given a few tries if you werent sure of the answer	11/30/2015 11:01 PM
37	The most I like about my accounting la was the explanations it gave me when solving problems.	11/30/2015 10:35 PM
38	I like the most about My Accounting Lab the problems and it was easy to understand.	11/30/2015 8:23 PM
39	Everything was focused on main points discussed in the chapter. which helped me to separate the not so important material	11/30/2015 7:50 PM
40	The ability to do the homework when ever i had time. This relieved my stress on finishing homework on time.	11/30/2015 7:13 PM

### Q13 What did you like least about MyAccountinglab and why?

Answered: 38 Skipped: 9

#	Responses	Date
1	NIA	12/9/2015 2:53 PM
2	Ome time i was doing an assignment it just kicked me put and i had to restart	12/9/2015 8:44 AM
3	Due dates	12/9/2015 1:18 AM
4	the time limits i hate it feels like your on a deadline. also when it comes to the numbers of an answer it would help if they explained how they got the answer would have helped	12/9/2015 1:04 AM
5	some questions were confusingI doing a problem was a lot of work	12/8/2015 11:23 PM
6	not enough explanations	12/8/2015 12:10 PM
7	Nothing	12/7/2015 8:23 PM
8	the homework no retries	12/7/2015 8:17 PM
9	The study modules and homework were off sync with formula and solutions. They were word things different between the different modules making it a little confusing.	12/7/2015 9:32 AM
10	too many areas to focus on	12/6/2015 5:31 PM
11	When I have to do the test because I can not revise it.	12/6/2015 4:00 PM
12	Nothing.	12/6/2015 12:30 AM
13	NIA	12/5/2015 11:46 PM
14	nothing	12/5/2015 8:35 PM
15	it was different from class	12/5/2015 10:07 AM
16	it had too many steps for one problem	12/5/2015 1:36 AM
17	NA	12/4/2015 11:44 AM
18	hard time to have access in occassions	12/4/2015 9:51 AM
19	What I like least about MyAccountingLab was the amount of lecture homework there was to do. When the chapter homework already had enough problems for a person to solve.	12/3/2015 9:36 PM
20	NIA	12/3/2015 12:05 PM
21	Nothing really	12/3/2015 2:13 AM
22	i really did not have much to say about it	12/2/2015 7:38 PM
23	Sensitivity , like if you miss a period it marks it wrong	12/2/2015 3:34 PM
24	The problems are too damn long and complicated	12/2/2015 12:05 PM
25	All the commas and very tedious strict answers.	12/2/2015 11:58 AM
26	Determining what the questions were asking was difficult at times. I would often get problems wrong because I was unsure what I was supposed to be answering.	12/1/2015 7:03 PM
27	nla	12/1/2015 5:40 PM
28	Personally there is nothing which I least like it so far this source is grateful for student.	12/1/2015 5:04 PM
29	I didn't like how some of the questions were phrased. They did not seem like the questions in the book or questions in the test.	12/1/2015 3:06 PM

## Wright College MyAccountingLab Student Survey

30	<p>What I liked least about MyAccountingLab was the homework and Power Points for the class. The homework had to many steps for one problem. I do not have time to sit there for hours on end trying to get one problem right. It is to time consuming and feels like a waste of time to me because the homework is way to complicated for the course. Also just as I said about the dynamic study modules, the homework is the same way. Put in random answers to get it wrong, see what the correct answer is, put in the correct answer, and call it a day. The homework could have been so much better. I feel that MyAccountingLab should let the professor be able to pick the questions they want to put in the homework or make up there own problems to put in the homework. They would be more straight forward and we will learn exactly what the professor is teaching us. The Power Points were also a disaster. The Power Points were different than the homework, the homework was different than the dynamic study module, and everything I mentioned was different than the book. To add on to that, the teacher wanted to teach us in the simplest way that he struggled doing so because everything was so different from one another or it was way to advanced for a simple problem. He ended up making up problems because MyAccountingLab failed to do so. Do not get me wrong, the system is a good idea for students to use but, it really needs work. One thing that it could have done is take problems from the book and work it into the homework instead of making completely different and confusing problems up. As of right now, I was better off the old way. Getting assignments just out of the book from the professor.</p>	12/11/2015 3:03 PM
31	Too many questions hehe	12/11/2015 11:52 AM
32	Problems to long.	12/11/2015 10:38 AM
33	homework, hard to understand the problems.	12/11/2015 10:26 AM
34	I didnt like how if you took all three tries to answer a part and didnt get it right, they wouldnt say how they arrived to the correct answer (in the homework)	11/30/2015 11:01 PM
35	I liked everything about my accounting lab	11/30/2015 10:35 PM
36	I like everything.	11/30/2015 8:23 PM
37	Some assignments were very long and tedious. Also some assignments were left with too many blank spaces, making it hard to follow or track back where you might have mis-calculated .	11/30/2015 7:50 PM
38	I hated the fact that you had to write the answer in a specific format. This made it frustrating because the answer i usually wrote was marked incorrect even if it was the right answer.	11/30/2015 7:13 PM