



Large TLEF Project – Final Report

Report Completion Date: (YYYY/MM/DD)

1. PROJECT OVERVIEW

1.1. General Information

Project Title:	Online resources for ECON101 and ECON102		
Principal Investigator:	Clive Chapple		
Report Submitted By:	Nisha Malhotra		
Project Initiation Date:	Aug 2013	Project Completion Date:	July 2018

1.2. Project Summary

Construct an online resource base for principal courses in Economics (Microeconomics -ECON 101 and Macroeconomics -102). These resources will also provide support for students in 300-level classes. This online resource base will contain a variety of materials such as videos of lectures, screen captures of lectures, “Khan Academy-style” online tutorials, pre-lecture quizzes and other online assignments. The resource base will be organized into learning modules, where each module focuses on one analytic concept. The Goal is to accommodate a wider variety of learning resources by providing a supplement (and possible alternative) to traditional lectures for delivery of course content. The resources will increase options for asynchronous and spaced learning, and hence provide a better learning experience for students.

1.3. Team Members – (Please fill in the following table and include students, undergraduate or graduate, who participated in your project).

Name	Title/Affiliation	Responsibilities/Roles
Nisha Malhotra	Senior Instructors/ Arts	Developing Video Tutorials, Online material, evaluation forms; Website Design & development; Student Evaluation & Feedback; Dissemination
Clive Chapple	Senior Instructor/ Arts	Principal Investigator
Shawn Ly	Research Assistant/Arts	Video editing
Jason Myers	Faculty Liason/ CTLT	Liason with CTLT/ARTS IT and faculty Lead
Amir Entezaralmahdi	UBC Arts IT	Website guidance and hosting
Leanna Chow	UBC Arts IT	Assistance with Website Development



1.4. Courses Reached – Please fill in the following table with **past**, **current**, and **future** courses and sections (e.g. HIST 101, 002, 2017/2018, Sep) that have been/will be reached by your project, including courses not included in your original proposal (you may adapt this section to the context of your project as necessary).

Course	Section	Academic Year	Term (Summer/Fall/Winter)
Econ 101	003	2017	Fall
Econ 101	003	2016	Fall
Econ 101	003	2015	Fall
Econ 101	003	2014	Fall
Econ 355	004	2017	Winter
Econ 355	004	2016	Winter
Econ 355	004	2015	Winter
Econ 355	004	2014	Winter

2. OUTPUTS AND/OR PRODUCTS

2.1. Please **list** project outputs and/or products (e.g. resources, infrastructure, new courses/programs). Indicate the current location of such products and provide a URL if applicable.

Product(s)/Achievement(s):	Location:
<p>“Khan Academy-style” online tutorials Video Tutorials on concepts for Microeconomics - hosted on youtube</p>	<p>https://www.youtube.com/playlist?list=PLo dnYOww5O-zD-Qmms52ULWZAxCWItN2v</p>
<p>Online Resources Microeconomics Course Website for Blended Learning: with online PowerPoint presentations; slides; video tutorials; policy related news articles; quizzes/assignments.</p>	<p>http://econ101.sites.olt.ubc.ca/</p>
<p>Lecture Capture Video Recording of Econ 101 - Microeconomics lectures.</p>	<p>http://mediasitemob1.mediagroup.ubc.ca/Mediasite/Play/2453344e76444c84ad5a428e7c356c741d http://mediasitemob1.mediagroup.ubc.ca/Mediasite/Play/ea8e317ff1564dd9b9f0297ef3b4e7691d http://mediasitemob1.mediagroup.ubc.ca/Mediasite/Play/0ca6f53be53b457fac7e56a2063d7f181d</p>



2.2. Item(s) Not Met – Please list intended project outputs and/or products that were not attained and the reason(s) for this.

Item(s) Not Met:	Reason:
Resources for Macroeconomics	--

3. PROJECT IMPACT

3.1. What were you hoping to change or where were you hoping to see an impact with this project? – Please list the intended benefits of the project for students, TAs, instructors and/or community members.

Support and enhance teaching and learning.

- Accommodate a wider variety of learning styles by providing videos stored in an online repository and associated in-class exercises as alternatives to traditional lectures.
- The use of online resources will free up class time, that could then be devoted to interactive exercises and activities that could help students master the course material.
- Facilitate the use of alternative instructional methods such as blended learning or flipped classrooms

Provide an efficient way for students in upper-level courses to review pre-requisites covered in ECON 101/102 and clarify linkages between ECON 101/102 and upper level ECON courses. Consequently, instructors using the online resources will be able to spend more time on International Economics and less time re-teaching basic principles.

3.2. Were these changes/impacts achieved? How do you know they occurred? – To what extent were intended benefits achieved or not achieved? What evaluation strategies were used? How was data collected and analyzed? You are encouraged to include copies of data collection tools (e.g. surveys and interview protocols) as well as graphical representations of data and/or scenarios or quotes to represent and illustrate key themes.

Instructors: Saving Instructional time. Organized course material hosted on a website. Delivering a course based more on in-class activities. More policy related news was discussed in class with more student interaction.

Students: Data from how the students have used this scaffold tells us that students are making use of one feature of the video that cannot be replicated in a limited class time: The ability to replay.

- Easy for students to keep up with the class material
- Students are more confident to work on class activities
-

For Econ 101 two online student surveys were conducted with “VOICI”. The student surveys were voluntary and distributed after the final exam. The first survey was conducted after the pilot program for the 2014 fall semester, and the second survey was conducted after the blended learning course was completely developed and delivered in the winter semester of 2015.



Survey I : (Econ 101) - 2014 Fall Semester, section 003.

Author: Dr. Nisha Malhotra

Conducted Using: VOICI “www.voici.com”

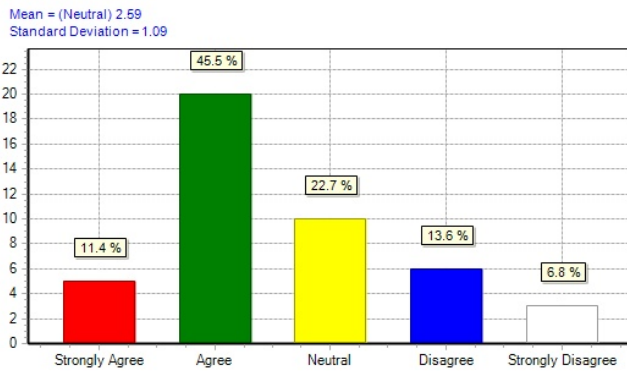
Responses Received: 44 completed responses

Date Complete: Thursday, April 24, 2014

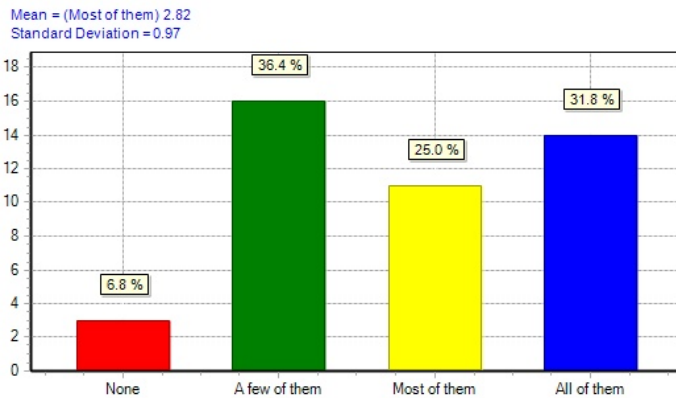
Survey duration: 4 day period from Saturday, April 19, 2014 to Tuesday, April 22, 2014.

Here are a few of the graphs from the survey - graphs display results from all respondents who took the survey. (for complete survey please see the appendix)

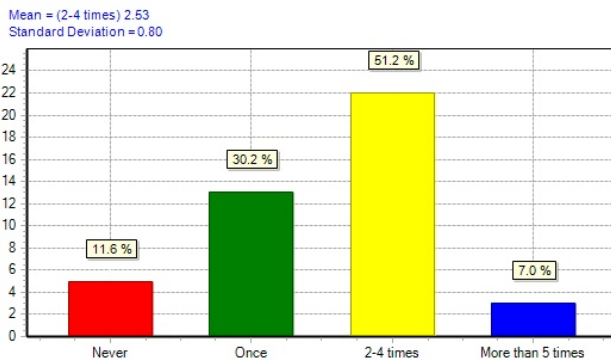
1) I would not have learned 'as much' from the lectures if there had been no in-class-exercises ("Think-Discuss with your neighbor").



2) Your instructor produced video-tutorials for a few economics concept. How many did you watch?



3) In case you watched your instructor's video-tutorials - how often did you replay portions of the lecture?





Survey 2 : (Econ 101) - 2015 Winter Semester

Author: Dr. Nisha Malhotra

Conducted Using: VOICI “www.voici.com”

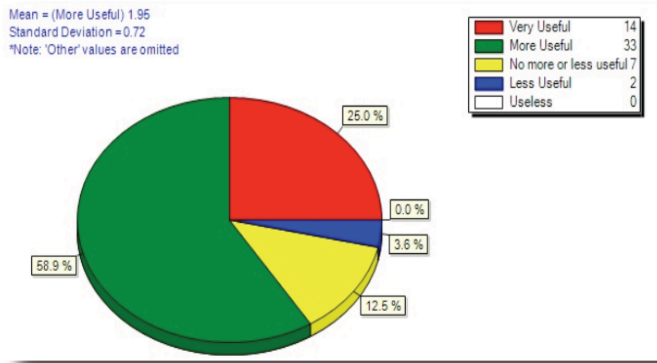
Responses Received: 58 completed responses

Date Complete: Saturday, February 07, 2015

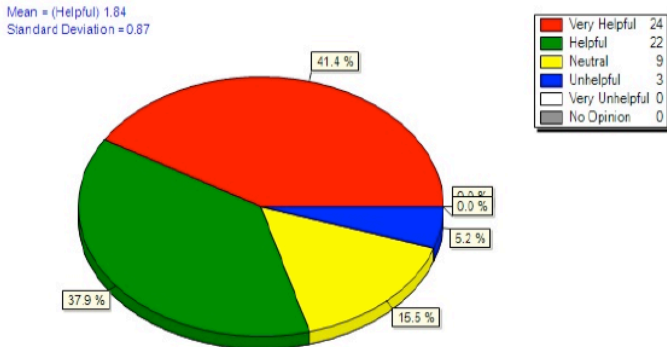
Survey duration: 5 day period from Wednesday, January 14, 2015 to Sunday, January 18, 2015.

Here are a few of the questions from the survey. For the complete survey please refer to the appendix.

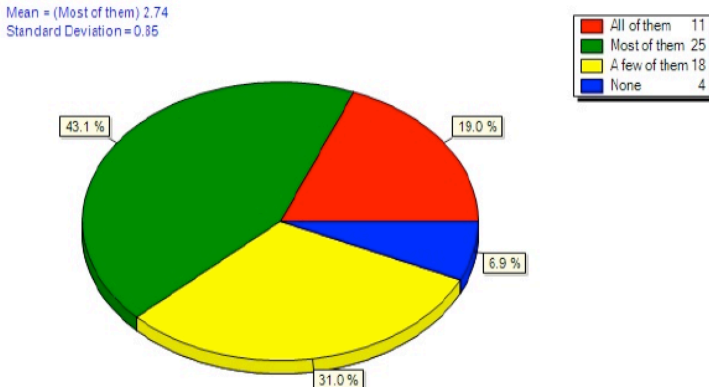
1. How would you rate the Blended course (Econ 101) compared to other traditional lecture courses?



2. The Course Website (How important were these 'features of the course' for helping you learn?)

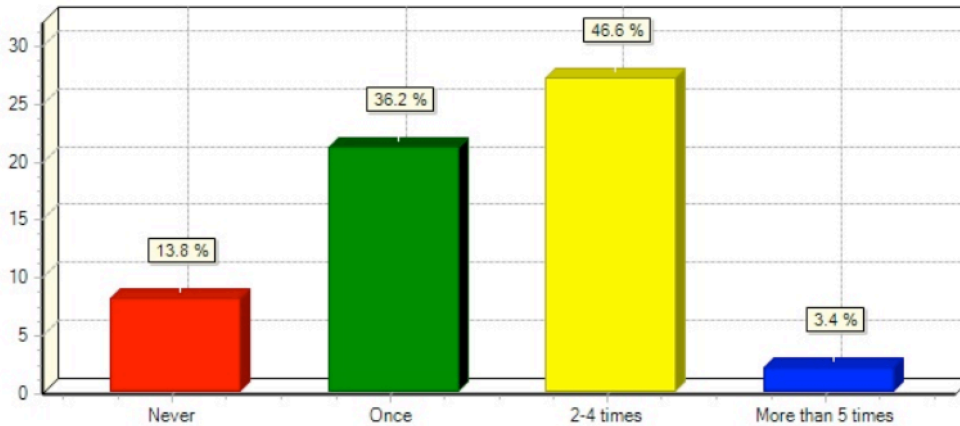


Your instructor produced video-tutorials for a few economics concepts. How many did you watch?



In case you watched your instructor's video-tutorials - how often did you replay portions of the lecture?

Mean = (Once) 2.40
Standard Deviation = 0.77



For what purpose did you use the video tutorials?

Response	Count	Percent
Revision or Preparation for Exams	45	77.6%
Enable note taking at own pace	13	22.4%
Catch up on Missed Lecture	18	31.0%
Clarification of doubts after lecture.	32	55.2%

3.3. Dissemination – Please provide a list of **past** and **upcoming** scholarly activities (e.g. publications, presentations, invited talks, etc.) in which you or anyone from your team have shared information regarding this project.

3.4.

- 1) A Workshop on Active Learning “Improving Student Engagement in Technology-Enhanced Classrooms: What Works, What Matters and Why.” Centre for Teaching, Learning and Technology’s Summer Institute, UBC, May 2014. Link to the workshop and presentation: <http://www.economics.ubc.ca/vseevents/event/improving-student-engagement-in-technology-enhanced-classrooms-what-works-what-matters-and-why/>.
- 2) Teaching and Learning Assistance to Accommodate Flexible/Blended Learning The Flipped Lab: TAs Supporting the Flipped Classroom, CTLT institute, UBC, 23rd April 2014. Workshop to discuss experience with active learning in class and the role of TA’s. Link to the presentation: <http://flippedlab.learning.ubc.ca/2014/05/01/1258/>.
- 3) Using Multimedia Technologies in Teaching Economics to Enhance Learning and Analytical Skills, Flexible Learning Open House Poster Session, CTLT institute, UBC, 10th June 2014. showcasing the various multimedia technologies used in the course. Link to the poster: <http://flexible.learning.ubc.ca/files/2014/06/Economics.pdf>.
- 4) The Evaluation Workshop, Centre for Teaching, Learning and Technology, CTLT institute, UBC, 10th June 2014. Workshop to discuss a range of strategies and tools for evaluating teaching and learning enhancement projects.



- 5) Link to the presentation: <http://www.slideshare.net/NishaMalhotra3/evaluation-straties-for-a-blended-learning-course>.
- 6) British Columbia Economics Articulation Meetings, Vancouver School of Economics, UBC. 5th May 2015
“Using Flexible learning tools in economics introductory courses”
- 7) Video Series by UBC Leap, Chapman Learning Commons. UBC.
 - a. Instructors Speak: Challenge to Exchange. UBC Leap.
<https://www.youtube.com/watch?v=eZ535zyFSLI>
 - b. Innovative Teaching @ UBC. https://www.youtube.com/watch?v=tf8y_yXFfK

4. TEACHING PRACTICES – Please indicate if **your** teaching practices or those of **others** have changed as a result of your project. If so, in what ways? Do you see these changes as sustainable over time? Why or why not?

-- One of the biggest benefits of using videos for review is the freeing up of lecture time. Consequently, we have used the time to apply economic concepts to real world cases. In particular, because we have more time in class, the active learning approach (such as in-class exercises) have helped to engage the students.

-- The course is very different now; each microeconomic concept has an application, which we cover in class with worksheets. We no longer talk only about a price ceiling or a price floor, but we also discuss minimum wage increases in BC and its implications, and the shortages caused by rent control in downtown Vancouver or New York City. Students now have time to analyze what is happening around the world using the economic concepts and tools learnt in class.

-- Students are still required to come to all lectures, but in addition, they have access to video tutorials that they can watch at home. They still have assignments to do at home. I have tried to maintain the same workload for all students, so the video tutorials are purely for reviewing the material.

5. PROJECT SUSTAINMENT – Please describe the sustainment strategy for the project components. How will this be sustained and potentially expanded (e.g. over the next five years). What challenges do you foresee for achieving the expected long-term impacts listed above?

To Update- course content with more online modules. Relate the content to other economics courses. Motivating and encouraging others in the department to make use of the resources might be a challenge.

Appendix: Complete surveys

Survey Results & Analysis

The Blended Learning Approach to Teaching Econ 101

Saturday, February 07, 2015 Powered by Vovici EFM
www.vovici.com

Executive Summary

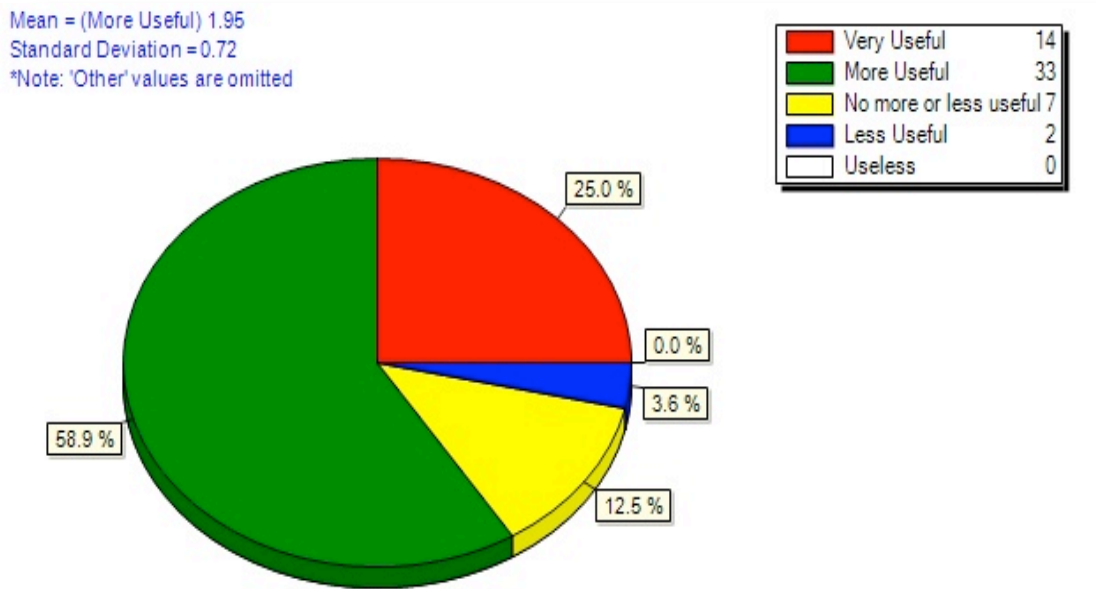
This report contains a detailed statistical analysis of the results to the survey titled *The Blended Learning Approach to teaching Econ 101*. The results analysis includes answers from all respondents who took the survey in the 5 day period from Wednesday, January 14, 2015 to Sunday, January 18, 2015. 58 completed responses were received to the survey during this time.

Survey: The Blended Learning Approach to teaching Econ 101

Author: Dr. Nisha Malhotra

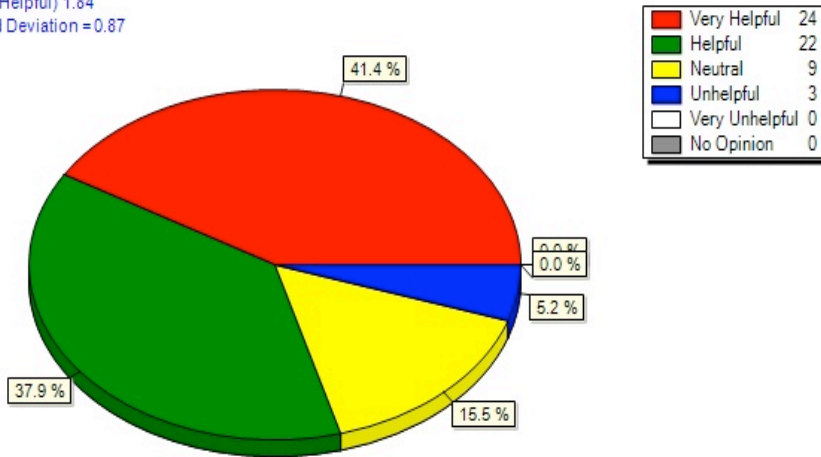
Responses Received: 58

1. How would you rate the Blended course (Econ 101) compared to other traditional lecture courses?



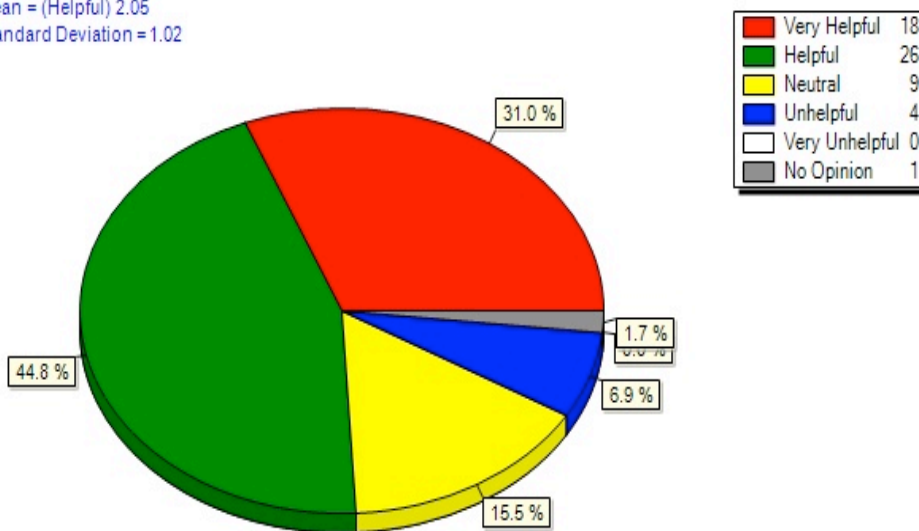
2. The Course Website (How important were these 'features of the course' for helping you learn?)

Mean = (Helpful) 1.84
Standard Deviation = 0.87



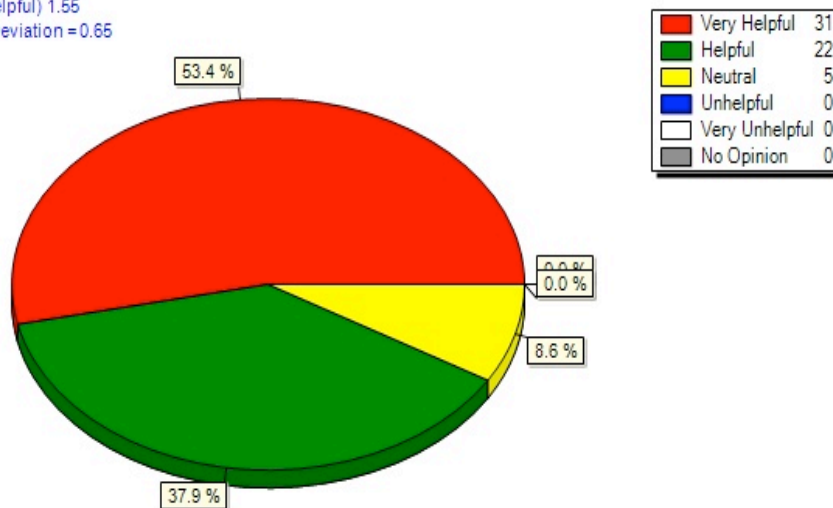
3. Video Tutorials (How important were these 'features of the course' for helping yearn?)

Mean = (Helpful) 2.05
Standard Deviation = 1.02



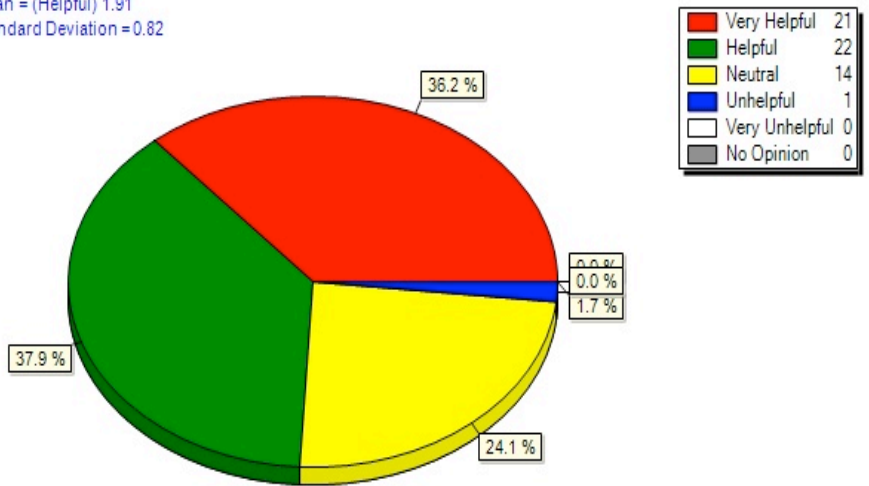
4. In-class worksheet/Exercises (How important were these 'features of the course' for helping you learn?)

Mean = (Helpful) 1.55
Standard Deviation = 0.65



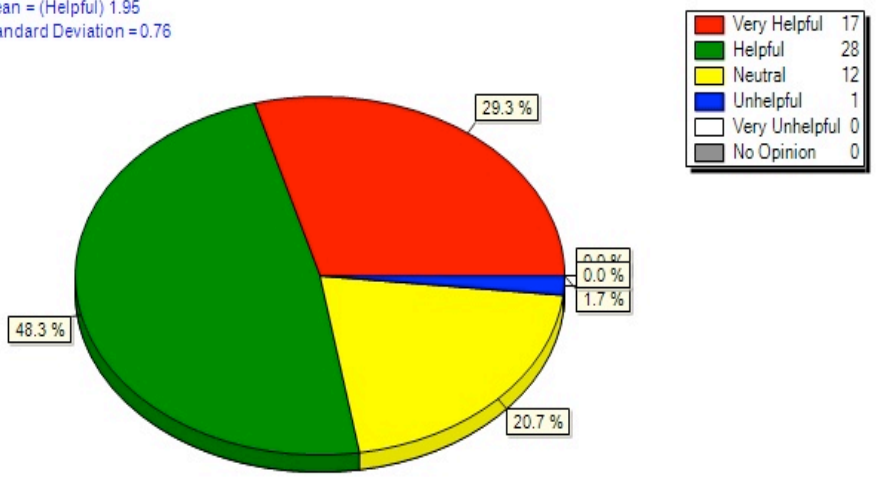
5. Class discussions with Instructor/Classmates (How important were these 'features of the course' for helping you learn?)

Mean = (Helpful) 1.91
Standard Deviation = 0.82



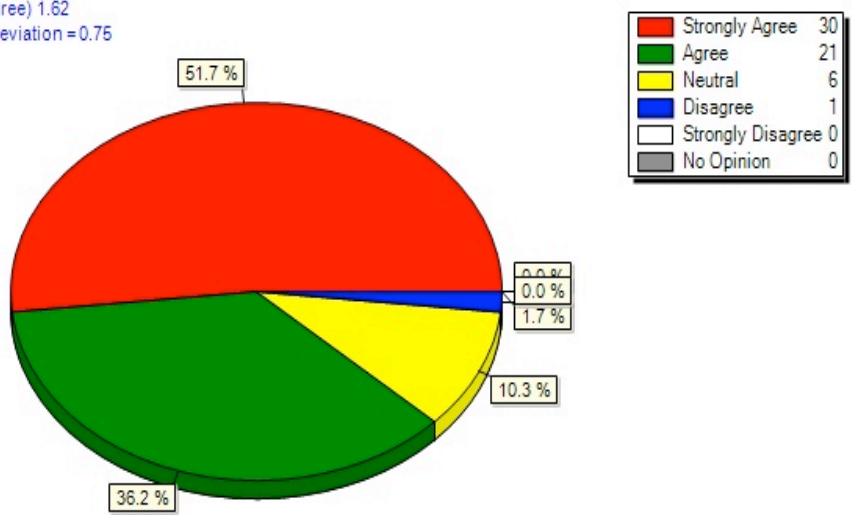
6. Case Studies (How important were these 'features of the course' for helping you learn?)

Mean = (Helpful) 1.95
Standard Deviation = 0.76



7. The in-class worksheet and exercises helped me focus and engage with the material.

Mean = (Agree) 1.62
Standard Deviation = 0.75



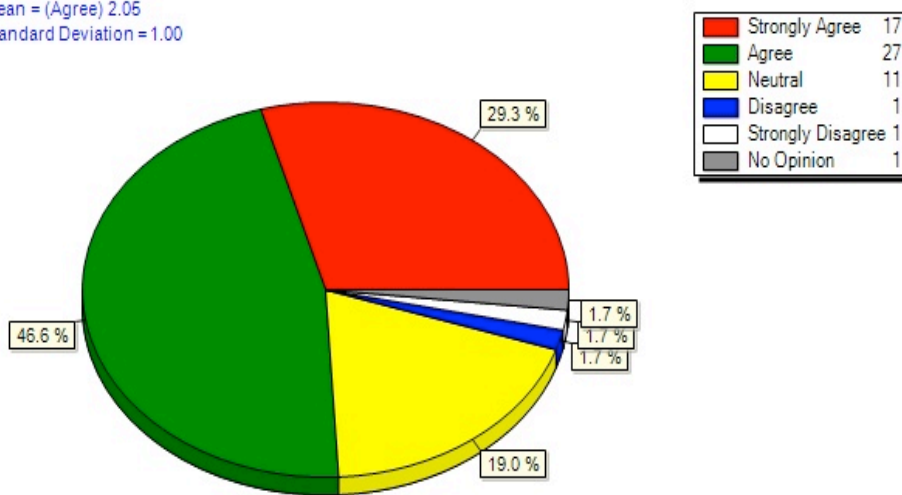
8. When you were given a question to solve in class and asked to discuss with your neighbor - you mostly

Mean = (Discussed the question with 1 -2 person) 2.21

Response	Count	Percent
Discussed the question with more than 2 people	5	8.6%
Discussed the question with 1 -2 person	43	74.1%
Tried to solve the question by yourself	6	10.3%
Read your notes	2	3.4%
Listened to others discussing the question	1	1.7%
None of the above	1	1.7%

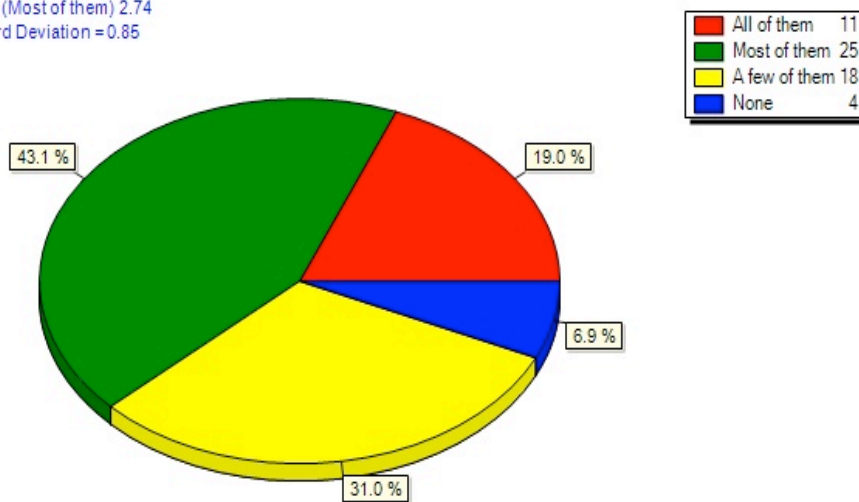
9. Having discussion time with the Instructor (during class-exercises) made it easier for me to ask questions that I might not otherwise have asked.

Mean = (Agree) 2.05
Standard Deviation = 1.00



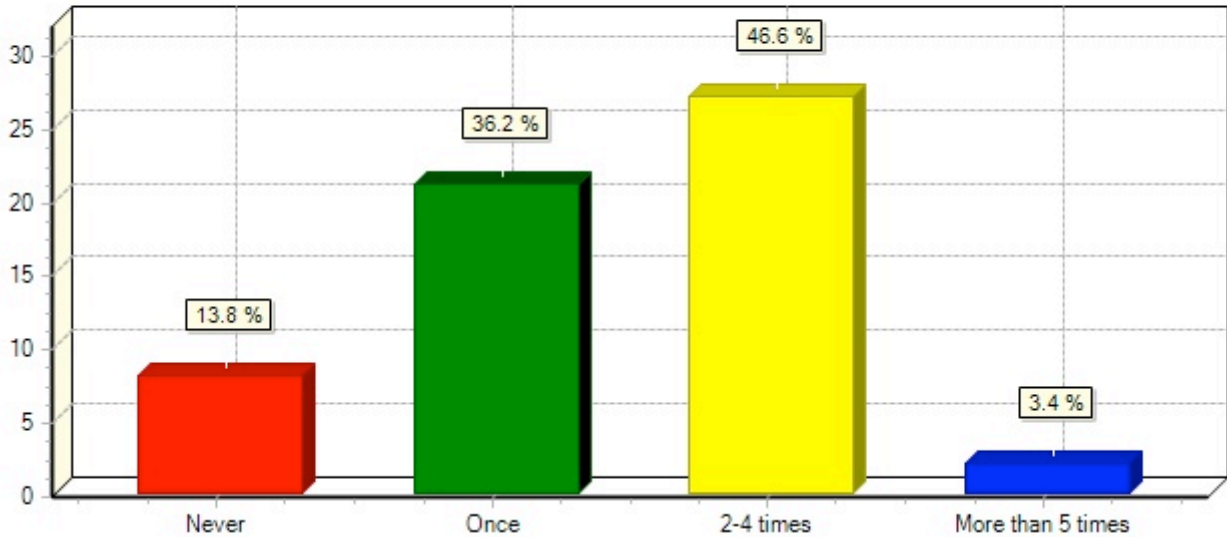
10. Your instructor produced video-tutorials for a few economics concepts. How many did you watch?

Mean = (Most of them) 2.74
Standard Deviation = 0.85



11. In case you watched your instructor's video-tutorials - how often did you replay portions of the lecture?

Mean = (Once) 2.40
Standard Deviation = 0.77



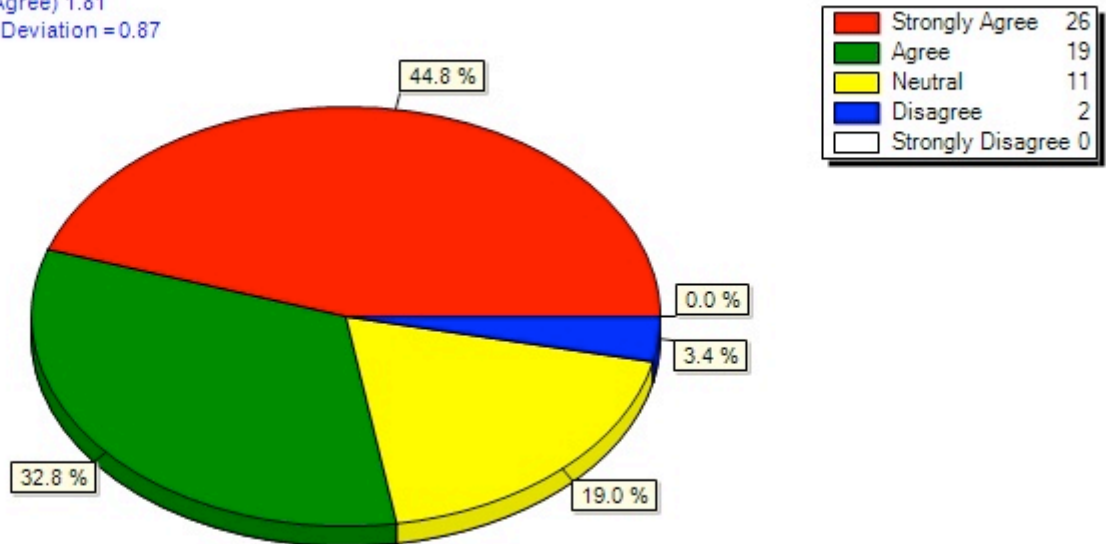
12. For what purpose did you use the video tutorials?

Response	Count	Percent
Revision or Preparation for Exams	45	77.6%
Enable note taking at own pace	13	22.4%
Catch up on Missed Lecture	18	31.0%
Clarification of doubts after lecture.	32	55.2%

Only For the Department

I would like to see more professors in the economics department produce video tutorials for difficult concepts.

Mean = (Agree) 1.81
Standard Deviation = 0.87



Tutorials with the TA (teaching assistant)(Did you find the following tutorial sessions helpful in learning the material ?)

Mean = (Helpful) 2.29
Standard Deviation = 1.21

