Teaching Fiscal Policy at the Introductory Level

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INTRODUCTION

I have taught principles of macroeconomics for thirty years. Macroeconomics is about the overall economy and attaining growth in production and employment with stable prices. The course also covers macroeconomic policy, including fiscal policy – which is used to stabilize the economy. My experience is that students have a difficult time understanding fiscal policy because of the mathematics involved in the underlying theory/model on which such policy considerations are based.

Following the suggestions of various scholars, I assigned my students a paper on fiscal policy using current data and answering specific questions on the topic.

Aim: I wanted to see how well the students would learn fiscal policy once they have engaged in writing a paper on the topic. I would test this by looking at their performance on the final exam.

PROJECT OVERVIEW:

Students wrote a paper on fiscal policy which involved the following:

1) finding government receipts and expenditure from 2000-present, graphing these, and explaining the trends in each line. I provide them resources to do this.
2) Trace the government budget over this period as it moves from a surplus to a deficit, showing that this also increases the government debt.
3) Show that budget deficits increase during a recession because tax revenues fall as incomes fall.
4) Show that the budget deficit increases even more with a fiscal stimulus.
5) Explain what a cyclically adjusted budget balance is.
6) Explain whether the budget should be balanced or in a deficit during a recession and also comment on the composition of the budget.

I expected that this would help students understand fiscal policy better as it lets them see the actual figures for the US and gets them to think about making a policy recommendation during a recession. I then tested their knowledge of fiscal policy on the final exam.

RELEVANT LEARNING OUTCOMES

Specifically I wanted to know if students know the language regarding fiscal policy (economic literacy), whether they understand the theory behind why economies have recessions and how fiscal policy can, in theory, alleviate the problem, and finally whether they are able to calculate the size of a fiscal stimulus needed during a recession and its affect on the government's budget. The last two are critical thinking and quantitative analysis skills.

DEFINITION	Do students know what the terms related to fiscal policy mean? What is the aim of fiscal policy? How is it used during recessions and inflation? What are the major types of revenue and expenses? What is the relationship between deficits and debt?
THEORY	Do students know how fiscal policy changes GDP and prices? How does fiscal policy affect aggregate spending? How does that differ depending on whether public spending changes or taxes/transfer payments change? Which economic parameters influence the effectiveness of fiscal policy? What is crowding out?
APPLICATION	Can students do quantitative analysis regarding fiscal policy? What is the exact magnitude of a change in spending or taxes to affect aggregate spending? What is a cyclically adjusted balance and why is it used? How does fiscal policy affect the government budget?

PROJECT IMPLEMENTATION

I used 20 final exam questions on fiscal policy from Spring 2016 and Fall 2016. Spring 2016 was my control group.

I compared the results between the two sets to see the effect of the paper.

The 20 questions were classified into three types: definitions, theory, and analysis to fit the learning outcome above. There were a total of 138 students whose data could be used.

PROJECT IMPLEMENTATION

My Hypothesis was that students would do better on the questions on fiscal policy on the final exam if they had done the paper. The class that had done the paper would also do better on the fiscal policy questions on the final exam. This hypothesis had several parts:

The paper would help students do better on:

I. The definition questions of the fiscal policy section of the final exam.
II. The theory questions related to fiscal policy on the final exam.
III. The quantitative analysis questions on fiscal policy on the final exam.

In addition, students did a "paper wrapper" which asked them several questions about their paper and was worth an extra point which was added to the 40 points that the paper was worth.

Students said that they spend anywhere between 3-10 hours on the paper, the median being 7 hours. They also reported how what percent of their time on each activity related to the paper. Finally they said the paper helped them understand fiscal policy, the budget deficit, the government debt, and economic policy in these times.

Percentage of Time Spent on	
Reaching the Chapter	11
Researching the Data	18
Researching concepts	11
Researching other Sources	12
Working out Problems	10
Organizing the Topic	10
Writing the Paper	29

FINDINGS

The analysis was done in two different ways.

1) all the exam question data from both semesters was pooled and then the effect of being a student in Fall 2016 was studied using ordinary least square regression. The total grade on the 20 questions was significantly affected by being in the Fall 2016 class. Breaking down by the learning outcomes that are measured by the final exams questions on fiscal policy I find that students did better on definitions, theory, and analysis portions of their test after having written the paper.

2) For the Fall 2016 students (68 students) the effect of their paper grade on how they did on the questions was considered. It was found that when they did well on the paper they did better in the course (the ρ value was always significant). However, when their course grade was added to the regression model, it was found that their course grade (which was a proxy for their GPA) was very significant in explaining their performance on the fiscal policy questions, and the paper appeared to have almost no affect. Again, this was true for all sections of those final exam questions – definitions, theory and applications.

CONCLUSIONS

Economists have grappled with teaching fiscal policy for some time. It is political, and emotional for our students, and looking at facts and ideas with an open mind is not an easy task. Under these conditions, how are we able to translate relatively abstract economic theory and math applications to an understanding of what government needs to do during economic slowdowns or overheating? My finding is that structured paper on fiscal policy is something that has helped students in the classroom. They had many positive comments about their experience, including

"I know a lot about fiscal policy now"
"Writing really helps you learn more about difficult topics"
"This paper made me think about things I would normally not think about and I learned about economic policy in a different expression form"
"I think this paper was a better way to learn about economic policy. This paper was very beneficial to this class"
"Helped me understand past decisions in the US and why we are where we are today".

The positive affect of the paper was enhanced by the wrapper and the reflections of the students on their experience with the paper.

I know that there are many economists who deemphasize fiscal policy in their courses because it is too complex a topic. I will take many of my students' advice and continue this paper in the future to help them make sense of fiscal policy.

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