

INTEGRATING THEMES IN TEACHING AN UNDERGRADUATE COURSE: THE CASES OF INTERMEDIATE MICROECONOMICS AND PRINCIPLES OF MACROECONOMICS

Abstract

Building a course around an important and intriguing question (an *integrating theme*) could increase students' interest and become a useful tool for organizing the course material. The integrating theme, or overarching question should resonate with a particular audience. In the case of Intermediate Microeconomics, a question like "Do people pay too much for their purchases?" seems effective for the most diverse audiences. For another example, an Introductory Macroeconomic course could be designed around a comparison between two countries such as Canada and Cuba. Comparisons often capture people's attention. The idea of a course design surrounding a central issue is distinct from other related paradigms, such as integrated curriculum or problem-based learning.

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1. An Overarching Question

"Before reading the next sentence, name an item that you think is overpriced. What makes you think it is overpriced? What do you think a 'fair' price would be? Do you think there are many such items in an economy? What impact high prices could have on economy and society? These are big questions. What kind of information would you need, and how would you use that information to answer such questions? Microeconomics may not give you *the* answer, but it helps you construct an answer that is appropriate given a set of circumstances."

The previous paragraph may serve for a catalog description of an Intermediate Microeconomics course. To live up to its promise, the course should meticulously build a system of assumptions, models, hypotheses and facts aiming to answer the overarching question.

How would an *integrating theme* benefit students? The integrating theme is the big question that holds all the course material together; the theme gives the course direction, purpose, and meaning. Students learn by example about the complexity of research in the pursuit of truth. When taken to the extreme, the class engaged in an integrated course may take the form of a research team and the course may use genuine research methods.

To the instructor, an integrated approach to a course has many potential benefits. First, it relates to the very purpose of teaching: improve students' learning. Second, allows the instructor approaching and exploring the material from different perspectives when teaching the course repeatedly to various audiences. Last, an integrated approach inspires new research venues and be inspired by the instructor's research agenda. Thus, the recurring tension between an instructor's research and teaching endeavours may find a new ground for reconciliation.

2. Related Concepts

There is little, if any research on integrating themes as a teaching method. Some authors refer to integrating themes using terms such as *integrative questions*, *pervasive themes*, or *problem-based learning (PBL)*. Most of the existing work on integrated curricula relates to themes that transcend the boundaries of courses, making for an interdisciplinary curriculum. Such an understanding of an integrative theme is not within the scope of the discussion at hand. Problem-Based Learning, on the other hand may be limited to a course, has a pervasive theme, but in general requires a specific model of implementation: team work, larger projects, and structured research. Such an approach is, again, different from our inquiry.

3. The Need for An Integrating Theme

According to (Fink 2003, 3), "data suggests that higher education is currently turning out graduates who neither have a good general knowledge nor know how to engage in the kind of complex thinking and reasoning that society today needs." The same author identifies, among the causes of this systemic failure of higher education the 'fragmentation' of the material: students learn this and that course, this and that topic, but without a big purpose or direction.

Several levels of integration can be identified: university-level (all courses a student decides to take), program-level, and course-level. At university-level a student has full control and there is not much teachers can do about it; program-level integration has received most of the attention in the scholarship of teaching and program design literature; integration at course level has received little attention so far.

One reason for this oversight might be that instructors pass the task of structuring a course to the authors of textbooks. Such an attitude might have been appropriate in the past when each subject was relatively limited to a handful of principles and methods. In modern times, subjects have developed into complex labyrinths of theories, schools of thought, and data, sometimes leading to contradicting

conclusions. Textbooks have become encyclopedias, impossible to cover in one course. Instructors have to select what to cover, from what perspective, to what depth, and to what purpose. And that is when the method of an integrating theme comes in handy.

An integrating theme helps providing structure to a course. But should students be forced to accept a structure imposed by the teacher? Most teachers would say 'yes' with no reservation, reckoning that clear structure helps learning. Indeed the current state of teaching philosophy requires stating clear goals at the beginning of each lecture, clear structure of the lecture, a clear summary at the end of each lecture, and some practice exercises afterwards. Such a structure may be appropriate in elementary education, or for subjects that require very precise and well-rehearsed skills. At higher education-level however, in subjects such as economics, an overly structured delivery may not be the best choice. If one of our goals is to teach students how to learn and think for themselves, a good point to start is to let them create their own structure. Any creation process is messy, it lacks structure. Writing an essay, as well as inventing a new machine, developing a new organizational scheme, or writing a new computer application are acts of creation for which there is no recipe; creativity cannot be learned by following a list of prescribed steps. Should, then, education provide students with 'micro-structures' at the level of each lecture and chapter? If we answer yes, when and how are students supposed to take responsibility for their own learning?

An alternative to fragmented microstructures would be macrostructure, which allows students to see the forest while letting them find their way among its trees. An integrating theme can serve that purpose.

4. An *Integrating Theme* Example in Teaching Intermediate Microeconomics

Do we pay too much for our purchases? To many economists, such a question may sound like a blasphemy. Haven't we learned from Adam Smith that markets make sure that prices are just right to keep the economy balanced? It is true that under some circumstances markets fail, but these conditions must be the exception, not the rule – many economists might say. Is that so? An attempt to answer this question can provide enough material for a semester-long course in Intermediate Microeconomics.

While this question may resonate with most of us, students may not immediately perceive its complexity and learning potential. The instructor could show students that prices of common consumer goods are widely different in different places within the country or abroad. A good source for current prices is (Adamovic 2013) . Students could be challenged to identify various factors determining such a wide spread in prices. Students will probably point out to variations in incomes, local conditions such as

the availability of resources, local culture, tastes, government trade or industrial policies, political and economic stability, and others. Student responses may set a 'research' agenda for the whole semester, of course guided and organized by the instructor.

Perhaps a good starting point would be to ask why prices *should* be the same for a particular item, beginning with the local level and continuing with more distant locations. This is a good opportunity to discuss the models of perfect competition, supply and demand, and marginal cost pricing. For a reality check, students could try to identify some markets that resemble the perfect competition model, and determine if prices in those markets are anywhere close to marginal costs. Another reality check could look at existing research for tests of price-marginal cost equality. (Hall 1988) and (Menezes-Filho 2005) are examples of such studies, both failing to find evidence of marginal cost pricing in the markets studied. What was the role of the integrative theme in the discussion of the perfect competition model? If markets are perfectly competitive, consumers pay – at least at the margin – a price that covers the costs of production, which may be considered a 'fair' price.

At this point, one may take a break from models and data to look a little deeper into the issue of fairness: unless we succeed to better define this concept, it is impossible to decide what is fair. Even with perfectly competitive markets, some consumers benefit much more from a purchase than others; some consumers decide not to buy the product at all because their individual benefit falls short of the cost of purchasing (a.k.a., the market price.) So, is price-equal-marginal cost a fair price? One should remember that fairness should concern both producers and consumers. Thus, perhaps a better definition of fairness could be that a fair price should be the one that equates consumer to producer surplus – a surprising idea, which might have not been thought about if not for the integrating theme of the course. Students may come up with other possible fairness concepts, and a good exercise could be to investigate the consequences of their definitions. The instructor will need to point out that economic science is not normally concerned with fairness, but it provides the tools to determine the consequences of various definitions of fairness. Economic science is, however, deeply concerned with efficiency and how it can be achieved. Once efficiency is reached, its fruits can be redistributed, in theory, in accordance to a working definition of fairness. In practice, though, redistribution is always a politically and socially sensitive issue.

To build on the momentum created by the study of competitive markets, the instructor may choose to continue with the other market structures. Here the issue of fairness is easier: since any departure from perfect competition involves some kind of price markup over marginal cost, the

discrepancy between consumer surplus and producer surplus is clearer. Since there is virtually no evidence that markets are even close to perfect competition, perhaps a great deal of monopoly power is the norm and not the exception. Again, the answer to this question must be empirical. The instructor might wish to collect and analyze a few case studies or anecdotal evidence to determine the magnitude of the difference between consumer and producer surplus. For instance, while economists teach that financial and banking markets are efficient and consequently there is little room for profit, the general opinion is that precisely corporations of those kinds are among the most profitable. How can one reconcile the economic theory with such a very different perception? Could it be just another mass misconception? Popular literature, some produced by insiders of large financial corporations suggest that there may be some truth in such a perception. Here is an example: "I was taught that stock markets were efficient. Michael Milken and others on Wall Street saw that this simply was not true. The market, which may have been quick to digest earnings data, was grossly inefficient in valuing everything from the land a company owns to the pension fund it creates." (Lewis 1989) If financial markets, with their highest density of experts can fail in valuing the objects of its trade, how could one trust that other markets do a better job?

So far, guided by our integrating theme, we have learned all kinds of market structures and we have identified a possible or partial answer to our overarching question: prices may be too high because market power is more pervasive than one might think. Yet there are other important microeconomic models that we haven't touched but could give us precious insights into our problem. One is the theory of production and costs, with emphasis on the costs of factors of production, 'normal' rate of return to capital and land, producer surplus, pure profit, and what 'zero economic profit' in a competitive market means. Even with zero economic profit in the market for a producer's output, if the producer uses an input that comes from a monopolized market the 'normal' return to the owner of that input may actually be quite abnormal. For example, the Ambassador Bridge, connecting Detroit to Windsor, one of the busiest bridges in North America, is owned by the billionaire Manuel Moroun. While the market for commercial transportation might be very competitive, most truck companies must use the bridge. As such, the use of the bridge is an example of an input provided in a monopolistic market. The competitive prices for transportation services include all the costs (rents) of the non-competitive inputs. Are those (competitive) prices 'too high?'

Consumer choice theory is another topic that can give us useful hints in our quest for truth. For historical and practical reasons, instructors may briefly cover utility maximization. But for the purposes

of our inquiry, an introduction to behavioural economics is useful in discussing an always-topical issue: market bubbles. Bubbles could provide another argument in favour of too high prices. While bubbles have been with use for as long as markets existed, there is still little understanding of how they develop and persist. To my knowledge, there is still little understanding about how spread smaller or larger bubbles exist in various markets.

5. An Integrating Theme Example in Teaching Principles of Macroeconomics

Do you know people who have lost their jobs because the economy had slowed down or because their company had moved to China? Do you or people you know have a mortgage and are concerned that interest rates may increase? Have you noticed that many prices have been increasing over the past few years? Did your friends ever debate why there is always a gas station on the U.S. side of the border but none on Canada's side? Do your friends ever debate why countries like India, Bangladesh, Russia, or Tanzania are poorer than Canada or Japan? If you answered 'yes' to some of these or similar questions, then this course is for you: it looks at how nations' fortunes can be measured and compared; why prices increase or decrease; how people create wealth (smartphones, movies like 'Avatar,' artificial snow, dog boots, and cappuccinos) out of nothing; how governments, banks, schools, hospitals, law courts, and money printing machines affect your and my wealth; why things sometimes go wrong big time; and why your neighbour goes to Cuba on vacation.

Students learn better if they are motivated, if they see what all is about. To motivate students instructors can organize all course material around an overarching theme or question and course outlines would highlight how each topic, chapter, and part contributes to understanding the integrating theme or answering the overarching question.

Here is an example of an integrated course structure. Overarching question: *Why my neighbour goes to Cuba on vacation?* This question is not only casually interesting, but is important because it prompts a series of other, deeper questions. The short and straightforward answer to the question is: My neighbour goes to Cuba on vacation because, for Canadians, vacations in Cuba are inexpensive. If we look deeper and try to understand why vacations in Cuba are inexpensive for Canadians, we can relate to all fundamental macroeconomic concepts and models, as the following examples illustrate.

We may start with some background information about the two countries: where they are located, how people live, what their historical and geographical circumstances are. (CIA 2013); other useful sources are (Adamovic 2013), for price comparisons across countries and cities, the World Statistics web site, (Statistics 2013), and World Bank's Development Indicators database (Bank 2013).

P.J. O'Rourke provides a first-hand experience with Cuban economy (O'Rourke 1998, 77-103). The instructor can refer back to various aspects of Cuban life through the course. The course syllabus should provide a course synopsis, which is an overview of the course that establishes the logical connections between content topics and the integrating theme.

Why my neighbour goes to Cuba on vacation? Short answer: Because Cuba is inexpensive. What does inexpensive mean? (How do we measure prices?; prices in constant dollars; definition of inflation; how prices in different countries can be compared; price comparisons between Cuba and Canada; definitions of exchange rates; simple exchange rate models)

Why are prices lower in Cuba than Canada? This is a tricky question. Cuban prices are 'low' for Canadians, but not so for Cubans, when a price is calculated as a percentage of income. Canadian incomes in real terms are much higher (show data) than Cuban incomes.

Why Cuban incomes are much lower than Canadian incomes? Because Cuban labour productivity is lower. To understand this, we need to look at several issues under the broader topic of economic growth and development: What is the link between productivity and income? What are the determinants of economic prosperity, and how do these determinants in Cuba and Canada compare? (Capital markets, labour markets, institutional arrangements such as property rights and the rule of law, economic freedom, international openness, education, and health.) How have the two economies performed over time (data)?

Can governments influence income, and indirectly prices? A comparison of the role of governments in the two economies is complex, since the types of government policies are very different. Therefore, we look at the market-based policies in Canada as opposed to command-type of policies in Cuba. How does Canadian government try to influence recessions, inflation, and unemployment? How do Canadian monetary and fiscal policies influence both Canadian and Cuban economies?

6. Conclusion

The low-resistance way of putting together a course is the *list-of-topics* method: pick up a number of chapters from a textbook, add them to an existing syllabus template, then summarizing those chapters in a set of slides for each chapter (Fink 2003, 61). The result is often a course that does not resonate with the audience and fails to provide long lasting learning. The method of an integrating theme in course design is an alternative to the linear 'list-of-topics' approach. Constructing a course

within the frame of an integrating theme requires much more time and work and may involve some risk. Instructors need time to build and improve an integrated course; they need to engage in a research agenda in support of the course. The result is, however, worth the effort in several dimensions. First, it challenges the instructor and the students to engage more deeply with the material. Second, it instills in students the excitement of research and discovery. Third, it allows the instructor to approach the material from various perspectives when teaching the course repeatedly.

The number of possible integrating themes to be used for a course design is limited only by an instructor's imagination. The choice depends, first, on the audience, then on the instructor's interest and expertise.

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