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GENERAL & APPLIED ECONOMICS | REVIEW ARTICLE

Case teaching in economics: History, practice and evidence

Guglielmo Volpe^{1*}

Abstract: Case studies are, normally, real-world problems that might include relevant or irrelevant data, correct or incorrect analysis and that require some sort of interpretation or solution. The use of case studies has been a common feature of undergraduate studies in business and law for a long time. In recent years, the so-called “case method” has become quite popular in economics education as well since it is believed to help the development to three key objectives in economics education: the mastering of economics principles, the application of principles to reality and the systematic analysis of policy issues. Coupled with student-centred approaches to learning, the case method can prove a very effective method in helping students to achieve a deeper understanding of both economic theory and policy analysis. The article provides an account of how case studies can be effectively used in economics teaching and reviews the empirical evidence on the effectiveness of the approach.

Subjects: Teaching & Learning; Economics; Education; Finance & Economics

Keywords: case method; newsclips; problem-based learning; student-centred approach; economic tools for teaching

1. Introduction

The case method has been used in academic education for a fairly long period of time. As explained in Section 2 of this paper case studies have been employed as the main pedagogical approach in the

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PUBLIC INTEREST STATEMENT

For many years “chalk and talk” (Schaur & Watts, 2011) has been the dominant teaching approach in economics education. While the approach is generally seen as an effective way to transmit knowledge, it is regarded less effective in helping students developing higher order skills of analysis and synthesis in particular with respect to policy issues. The use of case studies either in the form of newsclips or carefully constructed accounts of real-world scenarios, have progressively proved popular among economics educators as a way of developing the desired higher order cognitive skills. When coupled with student-centred approaches such as problem-based learning, the use of case studies can be a powerful way to engage students, stimulate interest, foster deeper understanding and develop an ability to address policy issues. The article reviews the use of the case method in economics and summarises the empirical research on the effectiveness of the approach.

teaching of very diverse subjects from law, to medicine, psychology and business. Its use in economics is much more recent due to the fact that a well-developed body of theory has existed in economics for some time so that delivery of such a theory through standard lectures and classes has always been seen as the natural teaching approach (Buckles, 1998). However, there is a need to go beyond the simple lecture approach in order to help economics graduates to develop the five subject-specific proficiencies identified by Hansen (1986).¹ In this respect the case method can be very effective in addressing at least three proficiencies (command, ability to draw out and utilising existing knowledge) as well as developing general transferrable skills such as critical skills, communication skills and team-working skills. Case studies can be extremely effective in reinforcing theory, in placing theory into context and in analysing economic policy issues. In this respect, the pedagogy of the case method will be illustrated in Section 3. The application of the case method in the classroom can take various forms and shapes and they are discussed in Sections 4–6. Generally, the aim of these sections is to provide the reader with an understanding of how case studies have been employed in the teaching of economics. Hints on how best to organise the class time and the teaching material are provided. Section 7 then draws on the existing literature to analyse any evidence about the effectiveness of the case method in economics teaching. In general, the paper hopes to provide the reader with a useful account of the evolution of the case method in economics teaching together with suggestions on how to employ the method in own teaching as well as the existing gaps in the research aimed at assessing its effectiveness.

2. The case method

The origins of the case method both in teaching and research are somewhat controversial. According to Tripathy (2009) the earliest use of the case method can be traced back to European and especially French Institutions towards the beginning of the 20th century. In the early 1900s, the methodology was then adopted by the Chicago School of Sociology in order to study the impact of large-scale migration into the US on issues such as poverty and unemployment. On the other hand, Shugan (2006) places the birth of the case method within the Law School at Harvard University towards the year 1870. The use of the case method for legal studies was advocated by Christopher Columbus Langdell, the then Dean of Harvard University Law School who believed that students should not just merely memorise law from textbook but rather should be able to learn to apply law in different contexts. The combination of case studies with “Socratic Dialogue” would help students develop strong legal reasoning as well as acquire an ability to generalise from singular cases to other similar legal situations. In 1919, the case method was introduced to business teaching by the then Dean of Harvard Business, Wallace P. Donham, himself a lawyer and a graduate of Harvard School of Law. According to Buckles (1998) the appeal of the case method in business education emerged from to the lack of sufficient business theory at the time. The use of case studies gave students the opportunity of discovering and developing frameworks for understanding and dealing with business problems. Over the years, case programmes were then established at both Harvard Business School, the Kennedy School of Government as well as other international institutions. Interestingly, Barnes, Christensen and Hansen (1994) point out that the increased use of mathematics and social science theory in business school has led to a decline in the use of the case methods in business education. On the other hand, since its inception the case method has become popular as a teaching method across various disciplines spanning from medicine, to psychology and, more recently, to economics (see e.g. Velenchik (1995)). In medicine, in particular, the case method has developed into the so-called problem-based learning (PBL) approach first introduced by Mc Master University in Canada: small groups of students work through cases according to a well-defined set of steps in order to learn about medicine. The PBL teaching philosophy is discussed in Section 6.

Within business education, Harvard Business School and the Kennedy School of Government have been at the forefront of the development and dissemination of the case method. The experience accumulated by tutors and teachers is shared through the publication of short papers that discuss the various pedagogical approaches to case method teaching (see, e.g. Boehrer, 1995; Shapiro, 1984). The classical case method has three main components: the case itself, the students’ *preparation* for the case and the *discussion* that takes place in the classroom. Cases are stories about

situations in which individuals or groups must make a decision or solve a problem. Cases supply students with information, but not analysis. Although many cases are drawn from real events in which decisions have been made and the outcome is known, most do not describe the decision itself, leaving students with the task of determining what the correct course of action would be. Case method teaching is a form of discussion teaching in which students prepare a case, either individually or in groups, and then seek collectively through in-class discussion to discover a solution to the problem presented by the case.

As explained in Volpe (2002), unlike problem sets, cases do not set the problem out in clear steps; nor do they lead to a single correct answer. Unlike examples used in lectures, textbooks or scholarly articles used for discussions, cases contain facts and description but no analysis. The story in the case can be told in narrative form, with numerical data, charts or graphs, with maps or other illustrations, or with a combination of all these techniques. Newspapers and magazine articles, insofar as they chronicle events without presenting analysis, can effectively be used as cases (see, e.g. Becker (1998a)). This is true even for articles describing a policy decision or an action that has already been made, as long as they do not provide an analysis of the decision-making process itself. Cases can often be composed of a number of newspaper articles, particularly if they present different points of views about a single issue. For the inexperienced lecturer, approaching case method for the first time, newspaper articles (or newsclips) on a particular case can be effectively used as the first step towards the gradual development of an in depth and comprehensive account of the case.

The success of the case study method is critically dependent upon student *preparation*. Students must come to class well versed in the facts of the case and prepared to provide an analysis of these facts. In the early stages of a module, it is usually helpful to provide students with study questions to guide their preparation, including questions aimed at focusing attention and questions that help them to begin the analytical process. These questions generally ask students to think about the relationships between the facts and events described in the case. The in-class *discussion*, the core of case method teaching, is flexible enough to accommodate a variety of different strategies for involving students. Role playing, for example, heightens the identification of students with actors in the case. Students may be organised into groups as a means of building consensus or of sharpening conflict. Students might prepare the case within a group or form groups more spontaneously during the course of discussion. Individual or group presentations could be the starting point of the discussion. The pedagogical features underpinning the case method are illustrated in Section 3.

3. The pedagogy of case studies

The case method is based on a philosophy of professional education which associates knowledge directly with action (Boehrer, 1995). This philosophy rejects the doctrine that students should first learn passively, and then, having learned, should apply knowledge. Instead, the case method is based on the principle that real education consists of the cumulative and unending acquisition, combination and reordering of learning experiences. There are two fundamental principles underpinning the case method. First, the best-learned lessons are the ones that students teach themselves, through their own struggles. Second, many of the most useful kinds of understanding and judgement cannot be taught but must be learned through practical experience. When instructors assign problems or tasks in a module, they are motivated by a similar concern: by working through the task on their own, students reach a deeper understanding of the concepts and ideas than they would have if they only read the text or listened passively to lectures. Case method teaching extends this principle to make preparing for class and the class session itself an active learning experience for students. By using complex real-world problems as the focus, it challenges students to learn skills that will be appropriate to deal with the practical problems that they will face as economists, civil servants or private managers. Teaching through the case method allows educators to address specific pedagogical issues and to develop higher order skills in students. Velenchik (1995) and Popescu (2014) highlight four pedagogical issues addressed by the case method:

- *Motivation to learn theory.* In general, undergraduate economics courses tend to treat applications as secondary to the exposition of theory. However, if students do not understand the purpose of theory, the process of learning becomes more dry and difficult than it needs to be, and students end up failing to grasp the tools they need. In the case method, the task takes centre stage. Students soon realise that they do not have the tools to deal with the task and they start looking for them: they want to learn theory.
- *Application of theory.* The ultimate goal of economics education is to enable students to apply economic reasoning to policy issues. The focus is generally as much on the process of policy analysis as on the specific area of policy. One method for illustrating the process is through examples related to lectures. However, this is problematic. The example is often preceded by theory, so that students think of the application as a use of the theory, rather than seeing the theory as a tool for dealing with the issues raised by the application. Examples are commonly selected because they are good illustrations of particular theoretical concepts, but they do little to help students learn which theories are appropriate for which kinds of policy problem. On the other hand, the case method requires the student to identify the theory that best addresses the economic problem under investigation.
- *Use of evidence.* Empirical analysis, guided by theoretical concepts and analytical tools, is central to many economics modules. Students are often required to develop an ability to use quantitative evidence. This often involves a number of tasks, including determining what types of evidence are relevant measures of particular phenomena, evaluating the credibility of available information, performing calculations to arrive at appropriate and useful measures, and finding the best way to convey this information using tables and graphs. In this respect, although the lecture and example method usually provides students with some exposure to quantitative information, it does not require them to do the work themselves. A prepared classroom example does not provide training in how to select, manipulate and present such evidence; nor does it help students learn to interpret evidence themselves. Case studies include raw data that students have to manipulate, represent and comment on in order to solve the problem.
- *Limitation of theory.* One of the most difficult aspects of applying economic analysis is understanding which parts of a question can be answered by economic analysis, and which are best addressed using other disciplines. In particular, students need to learn the difference between identifying economic consequences of a policy choice and considering these decisions in the broader social and political context in which policy-makers and business leaders find themselves. It is difficult to use a lecture and example to fulfil these goals, since classroom examples are often abstracted from their context. The case method forces students to be confronted with the broader (non-economic) consequences of economic decisions.

Volpe (2002) shows that the case method can also be used in a very effective way in order to move students gradually up the cognitive skills ladder from the low skills levels of *knowledge*, *comprehension* and *application* to the higher and more desirable skills of *analysis*, *synthesis* and *evaluation*. This educational taxonomy was originally proposed by Bloom (1956) and, even if not uncontested, it provides a transparent and structured way to think about students' skills development.

The case method is a rich and powerful approach to the development of cognitive skills in students. It is also a flexible approach, in the sense that lecturers can use it in alternative ways. These are discussed in Section 4.

4. Embedding the case method

There is no single approach to case teaching. Instead there are several approaches which work for different people in different situations. However, in general, it is possible to identify three broad approaches.

The first way is to use the case study as a support and an illustration in lectures and seminars. In this instance the use of case studies does not necessarily require the development and presentation

of long and elaborated case studies. Extracts from newspapers and business journals can be used to great effect in investigating issues and fostering students' analytical skills. The main advantage of this approach is that it requires relatively little preparation and constitutes an easy and gradual introduction to the use of longer and more comprehensive case studies at a later stage.

The second approach is to challenge the students to grapple with a decision-maker's dilemma, formulate a strategy and come to a class prepared to explain and defend their recommendations. This is usually referred to as "case method teaching", the instructor either does not lecture or conducts a limited number of lectures that are complemented by the analysis of longer and more complex case studies. The role of the lecturer is to moderate a classroom discussion among the students in which the students compare their different approaches. Learning from each other, the students work together to reach a richer understanding.

PBL is a further incarnation of the case method as explained earlier on. The key distinctive feature of PBL is the highly structured learning process. This will be discussed in Section 4.1.

4.1. The use of newsclips

The use of newspaper articles in economics is relatively well documented (e.g. Becker, 1998a). Many instructors like to use newsclips because they portray the complexity of business and political situations and the role of economic theory in unravelling that complexity. Case studies and, by implication, newsclips allow teachers to manipulate data, investigate hypotheses, deal with uncertainty and complexity and, ultimately, come to a decision. Many introductory textbooks complement the more formal exposition of theories and concepts with newsclips that show the applicability of theory to practice. However, less is known and written about the actual use of newspaper articles in the teaching room and its pedagogical value. The work of Becker (1998a, 1998b) is, therefore, something of an exception. He discusses his experience in using newsclips² to motivate students' analysis and to help them to learn quantitative skills. The next subsections address these issues.

4.1.1. Embedding newsclips into the lecture

In the lecture *focused* newsclips should be used, since the information provided to the students needs to be clear, simple and straight to the point. In many cases, articles contain additional information that is not directly relevant in the context of the topics that the lecture intends to address. This "noise" in the article can create confusion and take attention away from the relevant issues. Without careful selection the danger is that newsclips simply end up confusing and discouraging students.

The selected newsclips should contain (technical) terminology that is part of the economic theory discussed in the lecture. This will make students aware that the issues discussed in class are not abstract concepts, but are readily applied in the business context. The lecture could then be structured as follows. At the beginning of the lecture, the article is shown to introduce the lecture topic and to highlight the main points of discussion. The article is read together with the students to emphasise the main economics issues emerging from the news. In this way the context for the delivery of the lecture is set. The students' attention is captured, interest is stimulated, issues are raised and general *knowledge* is conveyed. The reading of the article should conclude by posing questions concerning the actions, decisions and strategies of the economic agents portrayed in the article. This helps to focus the issues under investigation and suggests the lines along which the lecture will be articulated. Thus, the case study provides a motivation to learn theory because the students begin to understand that unless they have some further knowledge, they will not be able to deal with the issues raised in the newsclip. Learning theory is no longer a dry and passive affair, but an active exercise aimed at solving problems. The ground for the development of the theory is then prepared. The lecture should then develop along traditional lines where the main theoretical concepts are developed and explained. During the explanation there should be continuous reference to the article's content and always attempt to place the theory within the context of the article. This helps the students to put theory into context: knowledge is conveyed while comprehension is supported and

application is shown. Throughout the explanation, the questions that were posed at the beginning of the lecture should be answered. This allows students to understand how theory can be applied to address a specific issue. At the end of the lecture the main issues developed in the lecture should be summarised and the case can be shown again to the students. This helps them to fix basic concepts in their mind and, more importantly, students can develop a first understanding of how analysis can be carried out. The delivery of the lecture through the use of the case study generally helps students to develop the “lower” skill levels of knowledge, comprehension and application. The development of the “higher” order skills of analysis, synthesis and evaluation is then carried out through the seminar activities. However, before proceeding with an analysis of seminar activities, an example can help illustrate how the approach is used in the lecture of a second-year economics module.

4.1.2. *Using the newspaper in small group teaching*

Lectures are usually complemented by seminars or tutorials that take place the week after the lecture. This subsection assumes that students are given a set of problems and tasks to prepare beforehand and suggests how seminar activities could be structured. First, the students should be asked to solve simple abstract numerical problems whose solution requires the *application* of basic knowledge (i.e. formulae, expressions, etc.) acquired during the lecture and through the reading of the assigned material. It is helpful in this case to design own problems rather than to use problems taken from textbooks. In this way there is a better control of the gradual development of cognitive skills in students. These problems could then be followed by a set of more complex problems in which students have to show an ability to *analyse* a specific economic situation or business decision and to produce a solution. These problems are specifically aimed at developing analytical skills, requiring students to break down information into simple components, establish links and produce a solution. In many cases it is possible to combine application and analysis in one single problem. A very simple example could be a problem that gives information about the fixed and variable costs of production of two alternative technologies and the output the firm expects to produce. The students can then be asked to set up the total and average cost functions. This task would require an ability to apply knowledge. The problem can then continue by asking which technology the firm should employ in production. This task requires students to use the results computed in the earlier parts of the problem to produce a solution by suggesting the most efficient technology.

The seminar could conclude with the investigation of a case study. The investigation of the case study aims to complete the educational taxonomy by inducing students to engage in the synthesis and evaluation of more complex information. Each case study should be accompanied by a set of questions that help students focus their attention on the issues that are relevant to the topic under discussion. In the early part of the module, the students will find it difficult to approach case study discussion in a structured and rational way. The lecturer's role is to coach the discussion and guide the student through a logical and informative investigation. As students develop a better understanding of how to approach case study analysis, your role in the discussion will reduce and you will be required to intervene much less frequently. Students engage in each element of Bloom's taxonomy through the range of activities in the case study. The development of the lower skills of knowledge, comprehension and application that started with the lecture is then complemented by the seminar activities that are specifically designed to push the students towards the higher skills of analysis, synthesis and application. This structured approach to learning, with the case study method at its centre, can be an effective method for developing higher order skills in students.

Newspaper articles can also be used in assessment. Here we discuss how they can be used in examinations, coursework and presentations. Other assessment strategies can be considered, but we focus on these because of their widespread use.

4.1.3. *Examination*

If students are assessed by examination, we suggest structuring the paper in four sequential sections aimed at assessing the development of cognitive skills. The higher order cognitive abilities receive a greater weighting in the mark scheme. The first section should require students to answer

short essay-type questions aimed at assessing their level of knowledge and comprehension. The second section should contain some abstract problems whose solution reveals the students' ability to apply theory to practice. Questions aimed at testing the students' ability to analyse alternative policies or strategies within the context of a fictional problem should feature in the third section. The case study should be included in the fourth section and students should be asked to deal with a set of questions aimed at testing their ability to synthesise and evaluate knowledge.

4.1.4. Coursework

Students assessed by coursework should be given a case study newsclip and should be required to provide a detailed account of the events described in the article by resorting to economic theory. The analysis should break up the article into simple components. Relationships between economic agents, actions and outcomes should be established, and an evaluation of the problem should be provided.

It would be helpful to accompany the case study with specific questions that determine the boundaries within which students need to work. The questions should be similar to those used for the discussion of newsclips in seminars. In particular, it is important to set questions aimed at assessing the students' development of cognitive skills.

4.1.5. Presentation

Assessing students by presentation is not only an effective way of testing their level of understanding, but also helps them develop other transferable skills such as the ability to communicate to a particular audience, time management and organisational skills. The presentation might require the student to act, e.g. as a business news reporter who has to analyse, present and evaluate a piece of economic news for a wider general audience. In this respect, the reports presented by the economics correspondents in news programmes provide an appropriate model. The student should be asked to provide a summary of the news, identify the main emerging issues and provide a critical evaluation of the implications for various agents in the economy.

4.1.6. What makes a good newsclip?

There are some basic guidelines that you can follow in the search for the "ideal" newsclip. The discussion so far has hinted at some of the properties of a good newsclip. The following is a list of desirable attributes.

- *Source.* The case study should be drawn from leading business newspapers and magazines or the financial page of good newspapers. This guarantees the quality of the articles and the detailed treatment of the news.
- *Freshness.* An event that has recently been reported in the news and that is at the centre of general attention can be helpful in motivating students and in stimulating them to follow day-to-day developments.
- *Pedagogical value.* It is important that the article has enough "content" to address the pedagogical values that the lecture intends to address.
- *Length.* Articles used in the lecture should not be too long, otherwise students will quickly lose track of the main issue and will lose concentration.
- *Terminology.* It is important that the article contains some of the technical terminology that characterises the theory developed in class.
- *Decision-making.* A good article should contain an element of decision-making, where the economic agents involved in the case have to make or have made a decision that needs to be evaluated and analysed.

4.1.7. The costs of teaching with newsclips

There are some inevitable costs associated with the use of newsclips:

- *Search time.* Time needs to be dedicated to the search and editing of newspaper articles. However, many leading business newspapers and magazines are available on the Internet. Their websites have search facilities that allow you to retrieve articles on the basis of keyword searches.³
- *Teaching time.* The presentation and discussion of newsclips during the lecture is bound to reduce the time available for the analysis of formal theory. Thus, you will have to restructure your lecture and to decide how to accommodate the discussion of theory within the shorter time available.
- *Teamwork.* Team teaching requires careful coordination and a commitment by all tutors to the teaching method.

5. The case study method

The first task in teaching a case is to place it purposefully within the framework of a module. It is also important to keep in mind that one case will often fit into several modules. Having assigned the case to a module segment, it is important to determine where it fits into the sequence of related classes and materials, particularly those that concern theory. The most obvious sequence is to present the theory first, then ask the students to apply it to the case, but cases can contribute to the learning of theory in alternative ways. Pedagogical issues can guide the decision concerning the placement of the case studies. In this respect, two approaches that are not necessarily exclusive can be considered.

5.1. Motivating students to learn theory

In the first approach, the case is used to motivate students to learn theory. This can be an extremely successful technique, but it requires careful attention to the timing, selection and teaching of the cases. This application of the case method tends to be more difficult than the use of cases as applications. However, it is especially rewarding, particularly since it increases student engagement in the lectures on theory that follow. To be used as motivating devices, cases should be introduced *before* the students have heard lectures on the relevant aspect of theory. At first, the students will find this approach more difficult, even if engaging. Thus, it is important to reassure them that the lecturer is aware that they do not have the theoretical tools necessary to complete the analysis of the case. Special care should be taken to allow them to explore all possible analytical methods without imposing a particular structure. The goal is to allow them to come to the conclusion that they need some analytical tools, and this will happen only if they are given the opportunity to think the problem through on their own. The case should raise interesting and relevant questions, without undue complexity. Some quantitative data should be included, but it is generally good to avoid overwhelming students with too much information. Select decision-forcing cases where the outcome of the case is not indicated and challenge students to determine what the best course of action would be. This type of case works much better than those with a described outcome. The class discussion should be steered towards the generation of a list of questions that need to be answered before the problem posed in the case can be solved. This is a better approach than to present the students with a menu of possible solution choices. In this way the development of analytical skills is triggered: break up the problem into simple elements, synthesise them to create a new entity and evaluate possible courses of action. The questions raised in the discussion should be of a type that can be answered by the application of economic theory. Students will tend to pose these questions in terms that are specific to the case. At this stage it is important to gently intervene and guide them to rephrase them in more general terms. The case discussion should end with a set of questions that need answers. They will be provided progressively in the lectures that follow the case discussion. In the subsequent lectures, the questions can be re-stated to remind students of what they are trying to understand and continue to make the connection between the case and the theory. This use of the case method motivates students to learn theory, primarily because they wish to understand the case and evaluate the arguments presented in it.

5.2. The case as an application of theory

The second approach to placement is to use the case as an application of theory, providing students with an opportunity to “do” economics and to apply acquired knowledge in real-world contexts. This

approach to case study teaching fulfils other pedagogical goals by inducing students to apply theory, use evidence and recognise the legitimate range of application of economic analysis. In the cognitive skills ladder, the approach helps to develop the higher order skills of analysis, synthesis and evaluation. The learning activities can be structured by choosing between two alternative approaches. One option is to introduce a case after each lecture. One or more small group teaching after the lecture are then dedicated to the analysis of the chosen case. A second option is to teach a series of cases after the completion of a series lectures on a theme. In this instance, the traditional weekly lecture-seminar structure is replaced by a series of lectures followed by a set of case discussions. This second method is more demanding for students, since it forces them to do more work in figuring out which theory to apply in which case. In this respect it helps to address the pedagogical goal of identifying the relevant theories to apply in economic analysis. The major drawback of such an approach is that it produces a long series of lecture classes uninterrupted by the change of pace provided by cases. This dilemma can be dealt with by teaching some short cases during the part of the class period throughout the lecture sequence. The short cases can be used to reinforce specific theoretical concepts. At the same time, students' interest is kept alive since application of abstract knowledge to real cases is shown. Two or three broad and more complex cases can be taught after all the lectures on the subject have been completed. The choice of how many cases to explore is up to the lecturer and it should be based on factors such as students' interest, the availability of cases and the time required to present theory.

5.3. Structuring the case discussion

Case discussions depend upon the active and effective participation of students. Students must get involved and take the prime responsibility for their learning. In this respect there are various issues that students and lecturers need to consider in order to make a success of the case study approach. Section 5.3 discusses five issues that are pivotal to this success: the relationship between the student and the lecturer; the leading questions that will direct the case study; preparation for the case study by teacher and students; the procedure for the case study; and closure.

5.3.1. The relationship between the student and the lecturer

The relationship between the student and the lecturer is vital to the operation of the case class. Both parties play an important role in making the case method successful, and both the students and the lecturer have duties and responsibilities. To show commitment to students and to induce students to participate actively in the exercise, an explicit "contract" can be made with the students at the beginning of the module (see Shapiro, 1984). The contract will describe how the teacher and students will be expected to behave with dedication, responsibilities, integrity and a commitment to excellence. Students should commit themselves to the "4 Ps" of the student involvement in case discussion.

- *Preparation.* If the student does not read and analyse the case, and then formulate an action plan, the case discussion will mean little.
- *Presence.* If the student is not present, she or he cannot learn and, more important, cannot add her or his unique thoughts and insight to the group discussion.
- *Promptness.* Students who enter the classroom late disrupt the discussion.
- *Participation.* Each student's learning is best facilitated by regular participation.

The students will, over time, grow to understand the importance of these four elements, but it is important that they are stressed early in the module. The teacher's contractual responsibilities might typically include:

- careful and complete preparation for the classroom experience;
- concern and devotion to the students in all dealings;
- striving to make the course a satisfying development experience.

In general, by showing commitment to the students, by being well prepared and by showing concern for the students, the teacher will be able to extract a similar level of commitment on the part of the students.

5.3.2. *Leading questions that will direct the case study*

The central task in teaching a case is asking questions, to guide students' preparation, to guide discussion and to facilitate students' participation. These are the fundamental means of mediating the students' encounter with the case and managing their interaction. In planning case teaching, it is important to identify central aspects of the case and to formulate key questions that will direct students' investigation. A case discussion requires just a few major discussion questions. Class sessions seldom afford time for more than three to five. Typically, they encompass defining the problem, selecting among action alternatives and reflecting more broadly on the situation. A typical sequence of questions would invite observation, analysis, prescription and then evaluation. Questions such as "what stands out?", "how does it fit together?", "what should be done?" and "what does it all mean?" help students to focus on their main objective and set the boundaries within which the discussion should be conducted.

5.3.3. *Preparation for the case study by teacher and students*

The foundation of good case discussion is preparation—the students' as well as the teacher's (Gomez-Ibañez, 1986; Hitchner, 1977; Lundberg, 1993; Zimmerman, 1985). The contract agreed with the students at the beginning of the module should emphasise the importance of discussion learning and clarify your view of the connection between their participation and their learning. Three common tactics for stimulating students' preparation can be used:

- *Study question.* Assign study questions to guide students' reading of the case with the aim of (a) getting them to organise the information in the case for themselves, (b) focusing on key discussion issues and (c) beginning the analysis of those issues.
- *Encourage conversation.* Encourage preliminary conversation of the case among students by organising study groups of five or six students or simply suggesting that students meet informally to talk about the case before class. Group work increases the incentives for students to prepare individually and enables them to pool information and try out ideas. It also helps to build confidence for participating in class discussion.
- *Written assignment.* Ask the students to prepare a brief written assignment. The thinking required by a written piece of work usually results in a deeper discussion. As part of the preparation for the case discussion the following could be considered:
 - *Structured questions.* Formulate questions to foster discussion and guide the students towards a full exploration of the case.
 - *Anticipate students' reactions.* List key facts and issues, outline the situation, summarise different actors' perspectives and consider alternative analyses of the problem to prepare to react effectively to what students say.
 - *Organise the discussion.* Plan how the students' analysis will be displayed on the white boards and arrange the room to enable them to see and talk directly to each other. Think in advance whether any role-play would be helpful to stir the discussion.

5.3.4. *Procedure for the case study*

The process of case discussion needs to be carefully structured and managed (Boehrer, 1995; Shapiro, 1984) and it is important to take the following issues into consideration:

- *Introduction.* It is a good idea to start framing the discussion with a few remarks that tie the case into the module and set an overall direction.

- *Role-play.* Students can be asked to put themselves in the position of one or more of the economic agents involved in the case. Much of the power of the case to engage student thinking and generate learning through discussions lies in its being a real story that comes to life when students inhabit or take ownership of the situation and face the problem as if it were their own.
- *Generate participation.* Once the first question has been posed, participation should be stimulated in order to foster engagement and raise as many ideas as possible.
- *Active listening.* The teacher's role as a listener in the discussion is a critical element in establishing the students' ownership of the discussion. Teachers interventions during the discussions should be minimal while careful listening of the students' contributions takes place. The listening should be *active* insofar as it encourages elaboration, confirms your understanding and asks for evidence or illustration from the case.
- *Keep to the teaching plan.* It is important to keep to the teaching plan as much as possible while leaving some time available to accommodate subsidiary issues that may emerge during the discussion.

5.3.5. Closure

It is important that at the end of the discussion a structured closure is provided. To be satisfying, the exercise requires some sense of completion, even if time runs short. One class seldom exhausts the possibilities of a good case. However, irrespective of the state of the discussion, some time should be allocated to end it. The notes on the board can represent a starting point for the summary. It is important to be careful not to invalidate the students' work by presenting a solution to the case. Though good cases concern problems that have no single correct answer, some students feel "lost" if they do not get a clear-cut answer to a problem. It is the teacher's task to make them understand that the most important aspect of the whole exercise is their ability to provide a structured approach to the problem. Whether the analysis leads them to one solution or another simply helps them understand how many real-world outcomes are determined by circumstances and other external factors. A good summary of the discussion should also involve the students. If the discussion itself has generated new questions, it will be worthwhile to formulate them as an invitation to continued exploration. They may help you tie the case into upcoming classes.

5.4. What makes a good case?

Robyn (1986) discusses the core elements of a good case, and some guidelines to take into consideration when developing a case are summarised below:

- *Pedagogical utility.* The most important question to ask oneself is: what teaching function will the case serve? What pedagogic issues will the case raise? Are those issues that cannot be raised equally well or better by an existing case?
- *Conflict provoking.* Controversy is the essence of a good case discussion: it engages the students; it forces them to analyse and defend their position; and it demonstrates to them that, while there are generally no right answers, there are certain questions that it is essential to ask.
- *Decision forcing.* Generally a case works better if it leaves decisions unresolved. That is, it is helpful if the case presents a choice or decision that confronts a manager or analyst without revealing what the protagonist did and the consequences of that action.
- *Generality.* A measure of a good case is its generalisation to some larger class of economic or analytical problems.
- *Brevity.* Cases that are too long and that contain too many facts tend to keep the discussion grounded in particulars. Thus, brevity is generally desirable.
- *Quantitative information.* The cases should contain quantitative information presented in a variety of forms, including tables, charts and graphs. Ideally, some of this information would be irrelevant, some would need additional manipulation in order to be useful and all would require significant interpretation beyond that provided in the text of the case.

- *Institutional and historical knowledge.* While the analysis of the case should require students to use theory learned outside the context of the case, it is important to select cases that do not require students to possess a large stock of institutional or historical knowledge.

5.5. Assessment within the case method approach

The case method does not provide any prescription about the strategy to use in assessment. For example, Carlson and Schodt (1995) report assessing their students through exam (70%) and homework and case discussion (30%). However, alternative strategies are feasible. In general, the issues rose earlier on hold within the case method approach. Group work can also be considered as a viable and effective way of developing both subject specific and transferable skills. For example, groups of students could be given separate cases to investigate. Their findings could be summarised in a written report and presented to other students, who will have an opportunity to test their colleagues.

5.6. The costs of adopting the case method

There are some costs associated with the use of the case method.

- *Class control.* The use of the case discussion means trading off considerable control over the class outcome for a dynamic, student-centred exercise. This can be problematic. By allowing students to express their ideas, the case method gives some students the impression that all ideas are equally good. It is up to the teacher to guide the class through the process of distinguishing between good and bad ideas. Similarly, students do not always take away from the discussion the ideas one hopes. Even if this problem is common to other teaching methods, it is particularly evident in case analysis. However, a good closure at the end of the case discussion can help reduce or eliminate such a problem.
- *Preparation costs.* Preparing and conducting a case discussion tends to demand more energy and time than lecturing. It is still relatively difficult to find good cases in economics and instructors find they must spend time working them up themselves.
- *Students' preparation.* Students must prepare much more than they typically do for seminars and they must also take the risk of expressing their ideas in public and being willing for these ideas to be subject to critical review.
- *Breadth of curriculum.* Teaching cases takes time and it can lead to the elimination of some material from the curriculum that would have otherwise been presented. However, the experience from lecturers who have adopted the case method shows that while students tend to have a less thorough and detailed knowledge of models, they have a good understanding of the fundamental insights and basic mechanics of some central ideas in economic theory and are able to apply them to the analysis of policy.
- *Colleagues' involvement.* The use of the case method in big modules where the teaching is shared among more than one lecturer requires that all those involved in the teaching share the same passion and belief in the method.

The third and final "interpretation" of case teaching takes the shape of PBL and will be discussed next.

6. PBL

As mentioned early on in this article, the case method shares some common features with PBL. Both approaches put the students at the centre of the learning process by requiring the learner to make sense of a "case" or "problem". However, while the case method is open to different and generally flexible learning approaches, PBL is structured around a fairly rigid series of steps that the learner needs to go through for the learning process to fully take place.

The process starts with a task or problem that is set by the teacher. Students work in small groups to generate the information necessary to respond to or solve the given problem. The task is designed to develop the desired learning outcomes and to make sure that students will be actively involved in

the acquisition and assimilation of all the information and knowledge that is necessary to solve it. In this context, the teacher is no longer the “expert” but becomes a “facilitator” of the students’ “struggle” to come to terms with the given problem.

Once the problem is set, students meet in groups to brainstorm the problem and to identify relevant issues and any information that is required to solve the problem. Specific study tasks will be identified and allocated to the various group members. Each group is structured around a group-leader that coordinates the group’s activities and a secretary that keeps track of the tasks that each group member is required to carry out.

After the first brainstorming meeting the group members get on with the allocated study tasks and start formulating a first initial response to the set task. The aim is for the group to come up with a response to the task in time for the next stage: the feedback meeting.

The group reports its initial findings to the facilitator who will then be able to provide some initial feedback that will help the students understand the positive of their work as well as the issues and areas they need to strengthen. Students then go away again to act on the feedback in preparation for the formal group’s response. This latter is the final step in the learning “cycle”: students supply either a written or oral response to the task which can either be formatively or summatively assessed.

6.1. Why PBL?

PBL is a well-established pedagogical approach extensively used in the medical and health care education that now finds also extensive application in many other disciplines. Pedagogical theory (e.g. Gibbs, 1992) suggests that relative to a conventional lecture-based approach, PBL fosters a deeper approach to learning and leads to a greater retention of knowledge. PBL also support the development of knowledge application skills as well as critical skills. In particular, the need to continuously interact with group members as well as the teacher, fosters in students an ability to “talk about economics” throughout the semester.

A well-designed PBL task requires students to become information seeker undertaking library researches and accessing various forms of information such as journal articles, reports and key statistical sources. From the teacher’s perspective, the adoption of the PBL approach means a transformation of the role with greater focus on supporting and facilitating students in their learning process rather than the “transmitter” of information. Such a role is generally very satisfying since it brings the teacher closer to the students and, more importantly, helps the teacher understand the thought processes that characterise students’ learning so that corrective action can be quickly taken if necessary.

6.2. Designing the PBL task

Similarly to the case method, the task or problem lies at the centre of the PBL learning process. Forsythe (2010) illustrates the type of tasks that he devised in the teaching of a first year introductory microeconomics course and he spells out the key designing steps that teachers need to be aware of in setting up the various tasks.

The first step involves choosing the appropriate PBL “environment”. One option is to choose a “partial PBL setting” in which a standard lecture plus seminar approach is implemented. In such a setting the lecture is used to deliver key economic theory which is then investigated in greater detail through the set tasks during the seminar time. The alternative is to choose a “full-format” PBL setting’ where no lecture is delivered and where the PBL problem drives the learning process. The chosen PBL environment will affect the learning activities embodied in the task as well as the response required from students. In the full-format PBL environment the task must be carefully designed to make sure that students engage with the full syllabus. This is not necessarily the requirement in the partial PBL environment since the teacher can decide which part of the syllabus (already delivered in

the lecture) should be reinforced by the PBL task. Similarly, the task could be designed to focus just on particular learning outcomes while in the full-format environment the task should carefully cover all the set learning outcomes.

Indeed this is the second key step that the teacher needs to be aware of in designing the PBL tasks. The PBL task should be designed so that the subject specific and the transferrable outcomes are being developed.

Once the PBL task has been aligned to the syllabus and the desired learning outcomes, it is important to identify the learning activities that will take place within each task. The activities are naturally closely related to the chosen learning outcomes and can comprise various activities ranging from the application of economic models to the search of academic information to the sharing of ideas and experience with peers. The key issue is the overall alignment between the syllabus, learning outcomes and learning activities. This is a balance that requires careful attention and some degree of creativity in its design.

The final step is the communication of the task to the students. This is an important step in making sure that the actual and intended learning outcomes coincide and that the self-directed learning by students is channelled in the right direction (Bouhuijs & Gijsselaers, 1993). A written copy of the task should be provided to students in a format that is helpful to them. Forsythe (2010) suggests organising the information in four steps that include the statement of the task, the guidance for the group leader, the suggested sources of information and the anticipated learning outcomes.

One of the key features of PBL is that its design and philosophy is such that there is a continuous interaction between staff and students so that a continuous flow of feedback takes place while the students work on their responses to the tasks. In this context, the assessment design plays a key role in the overall alignment between syllabus, learning outcomes and learning activities. This will be discussed in Section 6.3.

6.3. Assessment in PBL

Formative feedback is naturally built into the framework of the PBL approach. When students formulate a first response to the set task they have an opportunity of confronting their ideas with the lecturer. At this stage it is important that the students are provided with honest and constructive feedback that allows them to understand the quality of their work as well as the steps they need to follow in order to improve on it. There is a fine line between providing constructive formative feedback and supplying the answer to the task. Here the lecturer must be able to navigate carefully between giving students useful hints on how they can improve on their work while avoiding to simply solving the task. When eventually students submit their final response to the task they must receive some overall feedback. This can be either written or oral and it might or might not be linked to summative assessment.

The answer to the final task could be just the subject of some formative assessment or it could be either partially or fully part of some summative assessment. In such a case the assessment could be designed in various ways depending, again, on the overall learning outcomes that the module and the task intend to achieve. Students could be asked to deliver their response through a presentation or a written essay or report or through a set of mathematical solutions etc. Savin Baden and Major (2004) provides a useful account of the various assessment tools that may be used in a PBL context. Volpe (2007) employed PBL in the teaching of a final year economic growth theory model and employs the use of presentations and one-to-one discussions for the provision of formative feedback while summative assessment takes the form of written pieces of work submitted throughout the semester as well as an end of year exam.

The use of newsclips, the case method and PBL are well-established pedagogical approaches and a number of studies have been carried out to evaluate their effectiveness. A brief summary of such studies is presented in Section 7.⁴

7. Evidence on the case study?

The case method approach is a well-established pedagogical approach employed in the teaching of a rather diverse set of subjects. Research has been carried out in order to measure its effectiveness as a learning approach but, as pointed out by Allgood, Walstad, and Siegfried (2015) any empirical research is likely to be beset by various shortcomings. First of all, the treatment requires a sufficient amount of instructional time and be well executed. Secondly, in many instances it is difficult to randomise the allocation of students to the treatment and control groups. Thirdly, outcomes measures such as grades, student evaluations etc. may not fully capture the effects of the treatment. Fourthly, the aggregation of data either within the same institution or across institutions is often made difficult by the likely variation in the implementation of the treatment across tutors or institutions. A fifth issue is related to the distortions in students' behaviour that may be caused by the awareness of being part of a treatment group. Finally, academic policies can restrict the collection of data and regulate the use of research control.

Despite these shortcomings a body of research exists to provide some insights on the effectiveness of the case method. Early research concentrated on its pedagogical benefits. Van Eynde and Spencer (1988) show that the case method leads to a better retention of knowledge while Orlansky (1986) finds that graduate felt that the case method helped them to express and substantiate their opinions even if they were worried about the ability of the case method to cover the whole syllabus. Starting from the famous George Bernard Shaw quote "He who can, does. He who cannot, teaches", Shulman (1986) provides a detailed account of how the case method provides the ideal framework for the training of teachers and he concludes with his own re-interpretation of Shaw's quote "Those who can, do. Those who understand, teach."

Evaluating the benefits of using the case method in economics has been the focus of some more recent research. Velenchik (1995) discusses her experience in using the method to teach international trade policy. She provides an evaluation of the method by comparing the results of students exposed to case discussion with the results of students on the same course but who have instead been taught in more traditional ways. She observed that the students on the case course had a more complete grasp of theory and did better in examination questions requiring analysis of real-world situations using theory. She also observed a dramatic improvement in students' analytical thinking and in their ability to express themselves verbally. Carlson and Schodt (1995) employ the case method in teaching development economics and international monetary economics. They present a detailed account of students' evaluation of the case method and they conclude that students are emphatically positive and convinced that the use of cases helped them to learn economics. According to their findings, students feel that the use of cases adds interest to the study of economics and makes their classroom much more real. Carlson (1999) explains how students on his statistics course are presented with a situation that requires statistical and economic analysis to solve a realistic problem. Cases with data for real applications are supplied to students who are then required to prepare a written report to a policy decision-maker. The author's evaluation of the case method shows that the students' involvement in problem solving has greatly improved their learning of statistical methods. Buckles (1998) presents a number of cases studies for teaching both introductory economics as well as more advanced policy modules. He concludes that cases can help in enhancing motivation, repetition of principles and the development of critical skills. The use of case studies in the teaching of statistics and econometrics is also presented by Becker (1998a, 1998b) who shows that the use of newsclips helps the exposition of statistical concepts and allows students to understand the relevance of the material taught.

Tripathy (2009) provides a critical analysis of both case teaching and case research. His conclusion is that the case method provides an ideal platform to educators to address pedagogical issues related to tacit and implicit knowledge and, more importantly, to develop higher order skills in

students. A critical comparison of the standard lecture approach versus the case method is presented by Ardalan (2006) who warns the evaluation of the two philosophies is self-defeating since each approach is coherent and consistent, based on its underlying set of assumptions and that there does not exist an independent point of reference to be used for evaluation. In comparing the effectiveness of role playing, case studies and simulation games in the learning of agricultural economics, Blank (1985) finds that all three approaches improve the students' understanding of complicated when combined with lecture presentations. An educational impact model is used to carry out a qualitative analysis while a quantitative approach is used to test the hypotheses. While all three teaching methods have been shown to be effective it is also pointed out that there is a trade-off between student contact time requirement and the effects of the aids. Advances in technology and the introduction and development of online courses has led Watson and Sutton (2012) to investigate the effectiveness of the case method when teaching online by comparing synchronous and asynchronous communication technologies. Students on online courses that made use of the case study were asked to provide feedback on the technologies used. The empirical findings suggest that student satisfaction and perceived learning are affected by the type of technology used to implement the case method online. The technology used for case discussions seems to matter, especially with respect to how well it enhances students' engagement and interaction with the instructor and their fellow students.

Some other research casts some doubts about the effectiveness of the case method. Mumford (2005) argues that most claims about the case method are still too anecdotal and are based on claims that are not fully substantiated. While comparing students' perception of learning using the traditional lecture format and the case method, Parkinson and Ekachai (2002) find that the case method offered greater opportunities to practice critical thinking ability as well as problem solving but no clear evidence of a significant difference in the ability to retain information was found. In providing a critical analysis of the case method relative to the scientific method Shugan (2006, p. 114) argues that "...the case method often lacks the spirit of enquiry and the worship of the truth associated with the scientific method". More generally, in his view the case method helps destroying the link between academic research and classroom learning. In particular, Shugan identifies seven reasons to avoid the case method that range from the superiority of the scientific method over the Socratic one, the weakening of the link between research and the classroom, the teaching of false confidence, the potential loss of the best students, the inability to represent complex research in terms of a case study, the inability of the case method to expose students to the latest tools for making better decisions and the fall in the quality of marketing education.

While most of the current research broadly supports the effectiveness of the case method and its variants, more evidence is required to address research methodological concerns as well as the introduction of new technologies and their interaction with the case method. Similarly, more evidence on the ability of the case method to enthuse students and to foster a deeper and long-lasting understanding of economics ideas and principles is required.

8. Conclusions

The paper has presented an account of the evolution of the case method in academic teaching and has illustrated ways in which it can be embedded in the teaching of economics. Case studies can be used flexibly as a simple support to a standard lecture and class approach or can become the focal point of an educational approach where students have to come to terms with complex information to learn theory, its application and its policy implications. Beyond its educational value, the case method can be structured to actively engage students to the point of placing them at the centre of the learning process and making them responsible of their education. A number of transferrable skills ranging from communication, to critical and organisational skills are developed. Research on the effectiveness of the case method is generally mixed but broadly supports the view that it facilitates the retention of information and helps the acquisition of a deeper understanding of the subject.

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Notes

1. The five proficiencies are: *gaining access to existing knowledge, displaying ability of existing knowledge, displaying command to draw out existing knowledge, utilising existing knowledge to explore issues and creating new knowledge.*
2. Bredon (1999) proposes the following taxonomy of newsclips: *Osmotic newsclips; Case study newsclips, Focused newsclips, Reworked news.*
3. For more suggestions on ways to use the Internet to generate newsclips, see Bredon (1999).
4. Section 7 focuses on research on the case method. The papers by Albanese and Mitchell (1993), Vernon and Blake (1993) and Dochy, Segers, Van den Bossche, and Gijbels (2003) provide a good summary of the research on PBL.

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