



CONCEPT MAPPING

For Students in the Faculty of
Economics and Commerce

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Concept Maps: A Valuable Learning Tool

To be a successful learner at university, you need to develop learning strategies that promote meaningful or 'deep' learning. If you use a "deep" approach to learning you are looking for the underlying meanings and connections and are personally involved in the learning task. You are not merely using learning to achieve a short term goal such as memorising enough information to pass an exam.

It is essential to your studies and career that you can handle large amounts of complex information and concept maps offer one method to do this.

What is Concept Mapping?

Concept mapping is a technique that allows you to understand the relationships between ideas by creating a visual map of the connections. Concept maps allow you to:

- (1) see the connections between ideas you already have (which can be helpful in studying for an exam);
- (2) connect new ideas to knowledge that you already have (which can help you organise ideas as you find them in researching for an essay or research paper);
and
- (3) organise ideas in a logical but not rigid structure that allows future information or viewpoints to be included (which can help you absorb and adapt to new information and ideas).

The process of actually constructing your own concept map is a powerful learning strategy that is graphic in nature and forces the learner to think about the relationships between terms. This latter aspect makes concept mapping especially suited to the study of economics, but it is also useful in Accounting, Finance and Management subjects. By drawing a concept map of a lecture or a chapter in a textbook, for example, you can identify the key concepts and show the relationships between them, helping yourself to understand more clearly the meaning of the material. The term *concept* means an object or event that is labelled with a word, such as *demand*, *prices*, *income* and *tastes*. A concept is given new meaning when it is linked with other concepts, as in 'the quantity demanded depends upon.

Concept maps have a number of very practical applications for students. They are a handy way to take notes during lectures and are excellent aids to group brainstorming. They assist in planning your studies and also provide useful graphics for your presentations and written assignments. They also help you refine your creative and critical thinking.

This booklet was prepared with the significant assistance of Dr. Robert Dixon in the Department of Economics.

How to Draw a Concept Map

Textbook chapters or lectures are excellent materials for concept mapping because they offer short and concise descriptions of important subjects or issues. Try to come up with a map that represents the whole issue. Often (but not always) in Economics the map will be hierarchical (the more inclusive/general concepts and relationships usually are located towards the top and the most specific concepts are located closer to the bottom) with lines indicating subordinacy or flows, or cause-effect links. The assumptions which are made in the course of the analysis are the key break points in the hierarchy where it branches.

Step 1: Select and read a chapter in a textbook or a set of lecture notes on a particular topic, highlighting what you believe are important points and ideas as you go along.

Step 2: After you have finished reading and highlighting, you should identify the key concepts necessary for understanding the topic and make a list of their names.

Step 3: Decide which concept (or concepts - there may be more than one) is the most important or most inclusive idea, and make a list with this concept at the top. Find the next most general concept and write it next. You now proceed to rank or cluster the remainder of your concepts from *most inclusive* or *most general* to *least inclusive* or *most specific*.

Step 4: Begin constructing a concept map by placing the name of the broadest, most inclusive concept(s) at the top of a piece of paper. Work down, adding more specific concepts. Sometimes these may be located alongside each other like brands of detergent on a supermarket shelf, sometimes it is most sensible to have them in descending order, one above the other. Enclose each term in a box or circle. (At this point, you may decide to write each of the remaining concepts on very small sticky Post-it notes which can be moved about on the blank sheet of paper as opposed to writing each concept directly on the blank sheet. The reason for this is that you may want to rearrange your concepts while making the map and the stickies labels will save some erasing and rewriting.)

Step 5: Join the concepts with lines and label the lines with linking words that show meaningful connections between the concepts. As a first step you must formulate the word or words that accurately describes, according to your text reading, the relationship between the superordinate concept and the subordinate concept related to it. We call these the linking words. The learner (mapper) should try to be economical in formulating these links. Linking concepts is the most important aspect of concept mapping. Here are a few examples of linking words used to describe relationships: *composed of, includes, depends on, is influenced by, causes, is affected by*.

Step 6: Finish mapping in all the concepts in your list (see Step 1 above). You continue to make the map grow by relating additional concepts from your list to concepts already on the map. You continue with the more 'inclusive' terms first, working your way down to the most specific terms until all your concepts are mapped in.

Step 7: Now you study your map to see if there are any other relevant relationships that should be illustrated between terms on the map. Such relationships, if they exist, may take the form of cross-links. Cross-links are relationships that exist between two concepts in different vertical segments of the concept map. Cross-links help to integrate a concept map into a cohesive whole. Cross-links can be constructed at any point in the mapping process. In fact, the learner will often identify cross-links when only some of the terms have been mapped. Such cross-links may be forgotten if not mapped in at that point.

Step 8: When the concepts are linked together to form a cause-effect relationship an arrow is used to show the direction of the relationship. Not all links need be one-way. Look for examples of two-way interdependency (sometimes it might be indirect, that is, via another concept or concepts - and is best shown by a series of cross-links). Often in Economics there are two-way links (either direct or indirect) between concepts.

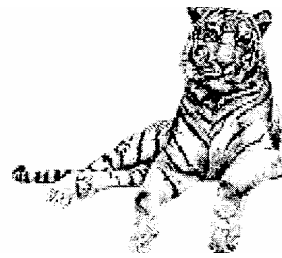
Notes:

(i) Good maps are like good writing; they are usually the product of several drafts. A concept map is very dynamic. The mapper often will make changes to the words used to describe a link and reorganise parts of the map during the map construction process. Such changes and reorganisation frequently become necessary in order to add new concepts and construct new relationships, and to represent how the learner now understands the subject matter. Herein lies the real benefit of concept mapping.

(ii) You will find it helpful to discuss your maps of a textbook chapter or a lecture with your friends and tutors. This will help clarify misunderstandings as to the essential concepts and the links between them.

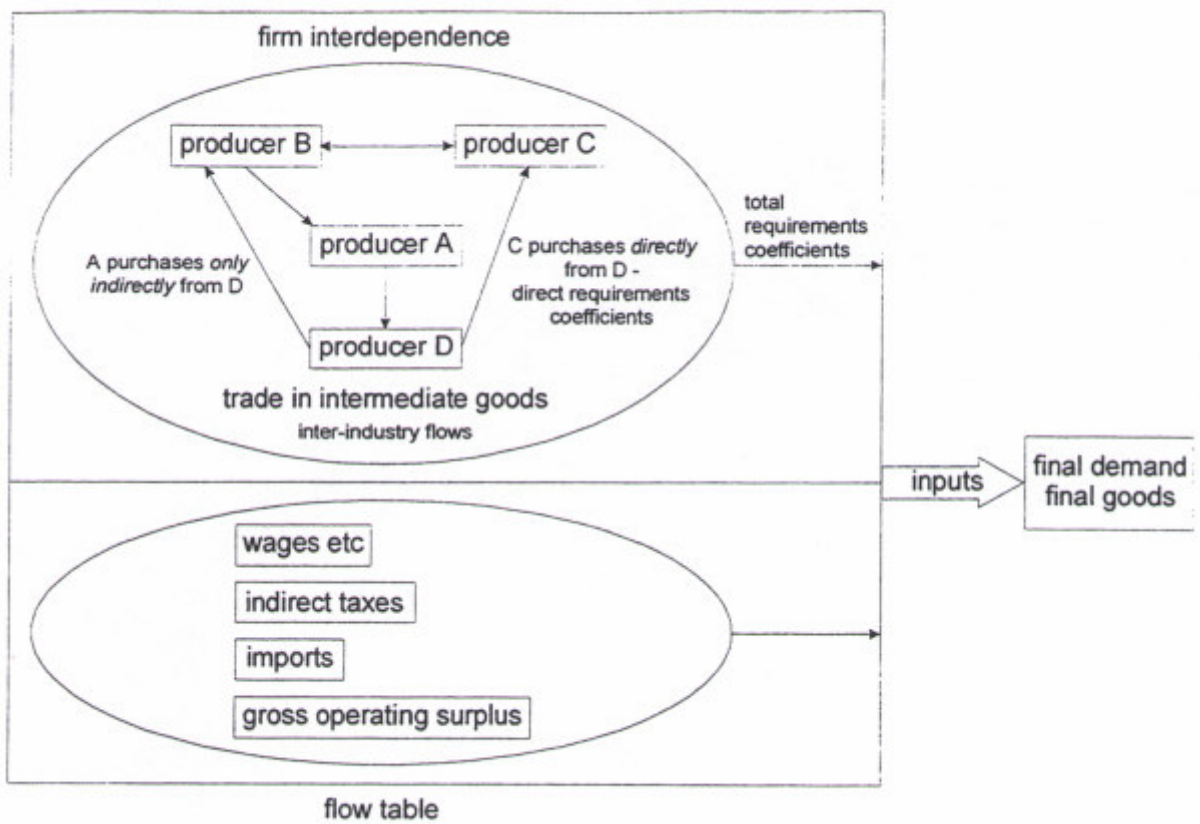
(iii) Through drawing concept maps you will be able to clearly identify the areas that are will understood as well as those where there remains some uncertainty. This assists you to reflect on your learning and contributes to a deeper understanding of the material. You will find that you are able to remember the material for much longer than if you simply take notes from texts. Improved learning outcomes will reward your effort in using concept maps as a learning tool.

Some examples of concept maps in economics follow. However, this strategy can equally be used in subjects in the Departments of Management as well as the Departments of Accounting and Finance.

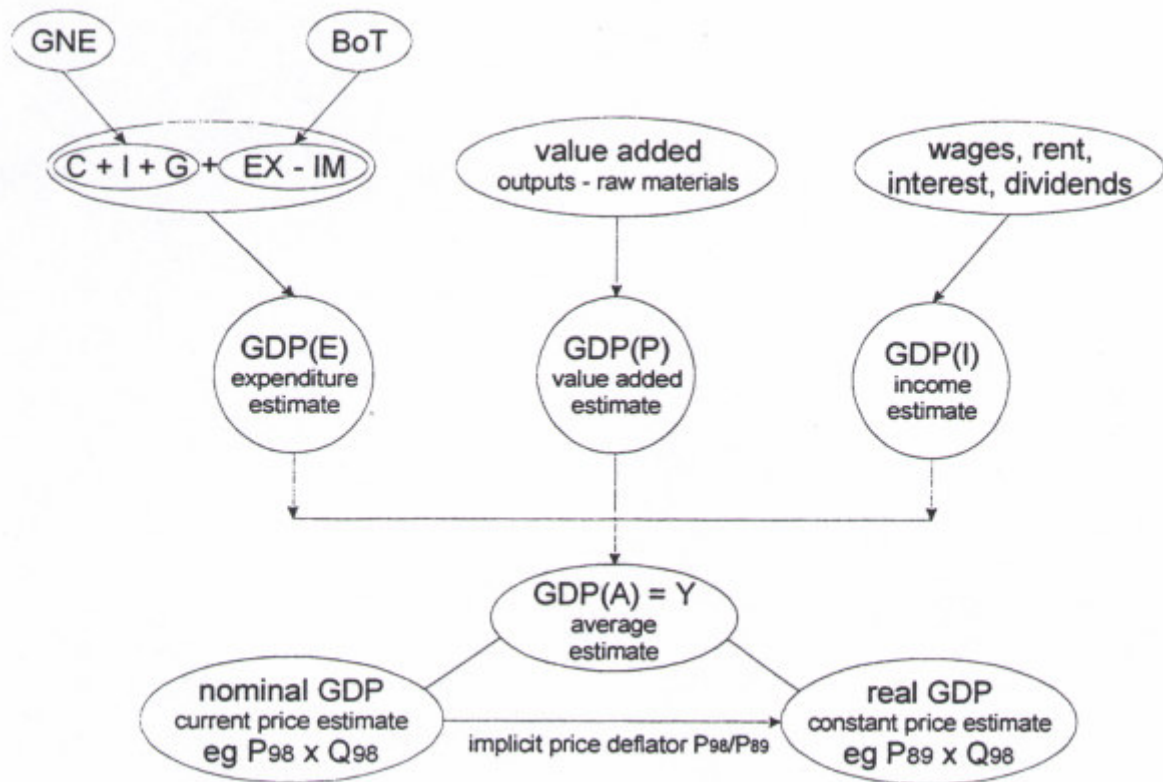


Examples of Concept Maps for Introductory Macroeconomics

1. Input-Output Concept Map



2. Production, Expenditure and Income Concept Map



3. Labour Market Concept Map

