Impact of Changes in Methods of Teaching and Learning Accounting

A. F. Popa, O.G. Stănilă, A.G. Ponorîcă

Adriana Florina Popa, Oana Georgiana Stănilă, Andreea Gabriela Ponorîcă
The Academy of Economic Studies, Faculty of Accounting and Information Systems, Bucharest, Romania

Abstract
The present study will bring into discussion possible ways of changing the approach of teaching and learning in the current developing academic environment on a case of 1st year students. We are examining the appropriate ways of adapting and improving the teaching accounting methodology. This need for change emerges from several of reasons, among which:
- increased demand of students, which are more involved and participative in classes;
- changed methods of teaching;
- changed educational circumstances and a more competitive environment for teachers;
- increased amount of resources and materials available for teachers and students.

Keywords: teaching accounting, teaching methods, cognitive skills, critical thinking skills, the role of the teacher

Introduction

Teachers usually create their own roles within the classroom, based on their theories and philosophies of teaching and learning, as well as on the kind of classroom interaction. Teaching techniques depend on specific situations and respond to the learners' needs.

The new approach of teaching and learning in accounting fits in the framework of changes in education, where students are more

demanding, knowledge and research are dynamic. The overarching objective was always and continues to be the motivating and challenge of students, to learn by engaging their intelligence, imagination and knowledge in solving the tasks and in participating in pair and group activities.

We focus our research on planning decisions, after a process of reflection, during which the teacher has to consider questions such as the following:

- What do I want my students to learn from this lesson?
- Why should I teach this lesson?
- What activities will be included in the lesson?
- How much time will I need for each activity?
- What methods will be applied?
- What grouping arrangements will I use?

Material and methods

In this paper, we start by presenting the motivation and theoretical background driving our research effort. Based on the current approaches specific for an academic environment, our research presents and analyses a range of teaching methods and techniques which can maximise students learning during the classes. In order to serve this purpose, a review of relevant literature is carried out, with a focus on interactive methods, such as: role-plays, critical thinking skills, brainstorming, jigsaw activities, fish-bowl activities, pyramid discussions, group work and pair work and others. New methodological approaches for teaching and learning, as discussed by various authors, are highlighted taking into consideration their relevance for our own teaching/learning context in a Higher Education environment.

The methods brought into discussion and exemplified in this paper are being applied to classes. They are mainly based on participative activities of groups and pair work. A new approach in action, consisting in several methods referring to cognitive skills: reading, writing, role-plays, debates and discussions, as proposed by Sherrington (2005), along with critical thinking skills as presented by Facione (1990), are applied on the particular case of teaching and learning "The Basics of Accounting" in the Academy of Economic Studies in Bucharest.

Literature review

The consulted studies focus on the role of teachers in the process of learning and interactive learning methods. Richards and Lockhart (1994) indicate the following roles of teachers:

- *Planner*, when the teacher sees planning and structuring of learning activities as fundamental for the success in teaching and learning;

- *Manager*, when the teacher's role is to organize and manage the classroom environment and the student's behaviour, in a way that will maximize learning;

- *Quality controller*, when a central task for the teacher is to maintain the quality of applying theories in the classroom;

- *Group organizer*, when the teacher's role is to develop an environment in which students work cooperatively on group tasks;

- *Facilitator*, when the teacher's role is to help students discover their own ways of learning and to work independently;

- *Motivator*, when the teacher seeks to improve students' confidence and interest in learning and build a classroom climate that will motivate students;

- *Empowerer* if the teacher tries to take as little control or direction over the lesson as possible and let the students make decisions about what they want to learn and how they want to learn it;

- *Team member* – the teacher and all the students in the class constitute a team and should interact like the members of a team.

These roles are better highlighted in terms of quality of teaching. The quality of teaching is the most important factor that influences student learning. Nevertheless, teacher education plays an important role in shaping quality teaching, as shown by Wang, Odell, Klecka1, Spalding and Lin (2010).

A whole range of studies about the new methods of teaching are available. In one of his researches, Sherrington (2005) presents the new methodology in action, consisting in several methods referring to cognitive skills: reading, writing, role-plays, debates, and discussions. Besides briefly describing them, we shall add critical thinking skills, as presented by Facione (1990).

A. Reading

Reading is seen as a skill that involves predicting, guessing, checking and developing one's power of anticipating and making sense of a text starting from the very title of the topic. By doing the reading tasks, students will stimulate the skills we use in real life, such as skimming the text for general meaning, scanning for specific information, intensive and extensive reading in order to understand the full message. These will influence the following subskills (Sherrington, 2005):

- understanding explicit and implicit information;
- recognising and interpreting the text structure, function and organisation;
- identifying the main ideas as a support for summarising;
- selective extraction of relevant points from a text and rejecting irrelevant information;
- comparing documents and transferring information to other forms of texts;
- evaluating a text by focusing on the writer's intention or attitude;
- reference skills: understanding and use of graphic presentation, such as subheadings, numbering, bold print etc.

B. Writing skills - going beyond writing tasks

The tasks involving writing skills include taking notes, solving problems of registering and writing short accounts on different topics as well as longer essay. The most common writing activity is registering in accounts, when students combine reading, writing and critical thinking skills, as well as the ground knowledge they might have acquired during the lesson. The writing tasks have an important communicative function, because what students write serves as an input for a subsequent activity (oral presentation, discussion) and they work, usually, in pairs or small groups. All types of interaction are encouraged: pair work, group work, class discussions, which provide a forum for peer feedback. Students can benefit more from working in a class by exchanging ideas and learning from each other, than by just sitting attentively and listening to the teacher, trying to absorb the knowledge given to them (Sherrington, 2005).

Writing activities go together with those for reading, because there are activities where students are asked to read texts and write

down the map of an argument. In this way, students develop critical thinking skills and the skills needed to organise their ideas, develop their argument by identifying premises, objections, reasons to reasons, reasons to objections, objections to reasons and objections to objections.

C. Role-plays

Out of the speaking tasks, role-plays are the most complex. The teacher must explain the situation and the instructions perfectly clearly. Students should be grouped by roles. At the end of the activity, the teacher should lead a follow-up discussion, asking the students to evaluate their performance and suggest alterations to the way the role-play can be conducted to a better effect from their own point of view. This enables students to step outside their roles and discuss how they have benefited from the activity.

Argyle (2002), cited by Pheny and Shun (2009), noted that case studies have long been used in teaching. Sharing the same opinion, Jakson (2004) stated that case methods of teaching are common in business education programs worldwide. "Case" is, as defined in Windsor and Greanis (1983) and quoted in Argyle's paper, "a 'typical' true-to-life management situation or policy issue presented as a mystery or dilemma compounded of multiple dimensions". Argyle makes the point that in analyzing case studies, students have to think purposefully and demonstrate their knowledge of the subject. This will promote deeper learning and also provide invaluable and timely feedback to teachers (Pheny and Shun, 2009).

Jakson (2004) points out that the case-based approach can pose unique challenges in bilingual contexts, especially if students are more familiar with the transmission modes of learning

D. Discussions and debates

Discussions and debates aim to develop critical thinking and interactive skills. They offer opportunities to exchange views and ideas, to examine their own thinking and opinions, to give structure to their arguments and present them convincingly, to evaluate their colleagues' opinions and respond appropriately (Sherrington, 2005).

Sherrington (2005) describes a number of forms of discussions, such as:

Brainstorming. Either as a full class, or in small groups, students are asked to identify any terms, issues, questions that spring to mind on a particular topic. Brainstorming is a useful way to the tutor to gauge the level of understanding gained from reading in advance of the session, to

identify issues that the students are unclear about. It is also a useful confident building exercise as it demonstrates to students that they do have some knowledge on a given topic.

Jigsaw activity. This involves dividing students into groups, according to the number of issues discussed under one subject. Each group explores one area, and then reports back to the class. This activity allows students to focus upon one topic, but then to share their work with their peers. It is a useful technique to employ if there are a variety of issues that need to be examined under broad parameters of a question or topic.

Fishbowl activity. Students are divided into groups, generally working on similar topics or issues and then reporting back to the class. This activity is used for highlighting the different perspectives that can be taken on a given topic.

Pyramid discussion. Is a technique that works with simple problem-based discussion. It gives students time to rehearse their arguments in small groups before they face the whole class. It starts with individual reflection followed by discussion in pairs. When the pairs have reached some agreements, two pairs combine to make fours and they again need to reach an agreement. At this point, they join with another four or with all the other students.

E. Critical thinking skills

Facione (1990) describes and explains the following critical thinking skills: analysis, interpretation, evaluation, inference, explanation and self-regulation.

Analysis means "to identify the intended and actual inferential relationships among statements, questions, concepts, descriptions, or other forms of representation intended to express belief, judgment, experiences, reasons, information or opinions". The experts include examining ideas, detecting arguments, analyzing arguments as sub-skills of analysis.

Interpretation is to comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures or criteria. Interpretation includes the sub-skills of categorization, decoding significance and clarifying meaning.

Evaluation is "to assess the credibility of statements or other representations which are accounts or descriptions of a person's perception, experience, situation, judgment, belief or opinion and to

assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions or other forms of representation".

Inference means "to identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses; to consider relevant information and to educe the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions or other forms of representation". As sub-skills of inference the experts list querying evidence, conjecturing alternatives and drawing conclusions.

Explanation means being able to present in a cogent and coherent way the results of one's reasoning. This means to be able to give someone a full look at the big picture: both "to state and to justify that reasoning in terms of the evidential, conceptual, methodological, criterion and contextual considerations upon which one's results were based and to present one's reasoning in the form of cogent arguments". The sub-skills under explanation are describing methods and results, justifying procedures, proposing and defending with good reasons one's causal and conceptual explanations of events or points of view, and presenting full and well-reasoned, arguments in the context of seeking the best understandings possible.

Self-regulation means "self-consciously to monitor one's cognitive activities, the elements used in those activities and the results educed, particularly by applying skills in analysis and evaluation to one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results". The two sub-skills here are self-examination and self-correction.

In the new approach of teaching and learning, we will develop specific activities where students may use all these critical thinking skills. Besides cognitive skills, in the following we looked at patterns of interaction, as they are particularly relevant for the new approach of teaching and learning accounting.

i. Whole class teaching or plenary lecture

Sherington (2005) describes plenary lecture as being used when the teacher leads the whole class through a learning task. The teacher typically begins a lesson by reviewing prerequisite material, then introduces and develops new concepts or skills, usually through lecturing. Critics of whole-class teaching have pointed out a number of

disadvantages, like: such instructions is teacher-dominated, with little opportunity for active student participation, teacher tend to interact with only a small number of students in the class etc.

ii. Individual work

Individual work means that each student in the class works individually on a task without interacting with peers or without public interaction with the teacher. It includes such activities as completing worksheets, doing exercises. But, again, it has disadvantages related to providing little opportunity for interaction, both with the teacher and with other students.

iii. Pair work

Pair work involves students working in pairs to complete a task. Through interacting with other students in pairs or groups, students have the opportunity to use their knowledge in a no threatening situation in order to complete different tasks.

iv. Group work

Group work involves students work in groups on learning tasks. The use of group work activities is a frequently cited strategy for changing the interaction dynamics of classroom. In addition to the benefits of pair work activities, group work has a number of specific advantages (Richards and Lockhart, 1994):

- it reduces the dominance of the teacher over the class;
- it increases the amount of student participation in the class;
- it increases the opportunities for individual students to practice and use new knowledge;
- it promotes collaboration among learners;
- it enables the teacher to work more as a facilitator and consultant;
- it can give learners a more active role in learning.

Group work encourages broader skills of cooperation and negotiation, while being more private than work in front of the whole class. It promotes learning autonomy by allowing students to make their own decisions in the group

Gilbert, J.E., Swanier, C.A. (2008) point out that learning styles theory indicates that people have different approaches of learning and studying. Advancing this theory, Felder and Silverman (1988) underline the fact that people with different learning styles process information differently, leading them to orient towards particular subjects, modes of

presentation and teaching styles. Therefore, teaching methods also vary, leading to a real challenge for teachers.

Results and discussion

The methodology based on cognitive skills and patterns of interaction was applied in teaching "Basics of Accounting" seminars to the 1st year students of the Academy of Economic Studies. We were fully aware of the importance of interactive methods in the new approach, including group work, team work, debates and others. There is a wide range of activities that aim to challenge the students intellectually and to give them a ground for debate. In this way, the focus is put on developing cognitive and communication skills. As a result of applying the methods referring to cognitive skills: reading, writing, role-plays, debates, discussions and those regarding critical thinking skills, the key findings include:

Reading: Reading tasks are usually related to debates. Students were asked to read some material in advance or in class and then they are required to express their opinions in debates or in writing.

Writing: This skill is often used in accounting, mostly for calculation and registering in accounts. It is also used by students in solving different exercises and more complex tasks implying other skills as evaluation, analysing, inference. For instance, in the example below students were asked to fill in the gaps after they make some calculation. This task requires knowledge learnt before, besides simple mathematical calculation.

In other exercises, besides writing skills, students need to draw conclusions of what they have learnt before, to evaluate concepts. Therefore, critical thinking skills of *evaluation and inference* are needed.

This kind of exercise is apparently a very easy one, but it is very important for students to understand exactly in which category they have to arrange the items (assets, liabilities and owners equity). Recording the transactions in accounts is one of the most popular writing activities in accounting.

Experience has confirmed so far that students are very receptive in terms of applications, because they can better understand the theoretical aspects, they are really eager for more practical problems.

Role-plays: Students were asked to act as bookkeepers. Role-plays are important in accounting, because they enable students to act as

close as possible as in real life. We also used to work in teams, in order to take a practical example, so every team represents a company, such as a bakery, a pastry cook shop, a donuts shop. Each team basically created their own activities. Monitoring these activities on a regular basis, we could notice that this is a good exercise for them to work in teams, since students do not usually come with prior notions or experience of team-work, which is absolutely necessary for their future career. Therefore, these types of activities have the extra benefit of helping students to develop team-work skills.

Discussions and debates: Students were asked to discuss the principles of accounting. This activity can be done as a group work; therefore, it will be exemplified under "Patterns of interaction".

Critical thinking skills: Students use critical thinking skills when learning new concepts or theories. Teachers should identify and use activities that enable students to use these skills, in order to a better understanding and to apply knowledge. **Analysis:** students were asked to analyse texts for identifying the relationships among statements, questions, concepts, descriptions, or other forms of representation intended to express belief, judgment, experiences, reasons, information or opinions. One useful technique of analysis is mapping out the argument. **Interpretation,** as a critical thinking skill, is used in different exercises, for example, the sub-skill of *categorisation* is exemplified below. Students were asked to link the terms "accounting" and "bookkeeping" to their appropriate explanations presented in paragraphs (a) and b), for example). For this task, students assessed the logical strength of inferential relationships among statements and descriptions meaning that, besides *interpretation*, critical thinking as skill of *evaluation* is needed. **Evaluation:** after explaining and defining concepts, the students were asked to draw conclusions, assessing the credibility of teacher's statements.

Besides *evaluation,* this activity implies *interpretation* skills, mostly the sub-skill of *categorisation.*

Inference is used for drawing reasonable conclusions considering relevant information given in advance flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions etc. As sub-skills of inference, drawing conclusions is the most used. Students were asked to identify the objectives of bookkeeping, after discussing its definition, role and methods. The main question arising is "Why is bookkeeping useful for?" After group-

discussions, the response to this question is presented. The method used is known as *learning through discovery*.

Explanation

Explanation is usually needed in teachers' lecture. But sometimes, students could be asked to explain the elements of the theory. This is a mean of checking whether students have understood the concepts of the teachers' explanations.

Patterns of interaction

Whole class teaching or plenary lecture

Plenary lecture remains the most popular method of teaching. It is used for explaining concepts and theories. Usually, plenary lecture is followed by other activities, such as solving exercises, debates, group work activities etc. Besides explaining concepts, we also introduce schemes or equations for maintaining students' interests during plenary lecture. In our case, schemes may be written on the table during plenary lecture. Although the plenary lecture is not so „modern", it is useful to present the theoretical aspects. But to understand better the theoretical part, the practical problems are needed. Usually, we require students to help with filling in the scheme, asking them different questions related to the accounting equation.

Individual work

Individual work is used as homework, because, whenever possible, activities in class are recommended to be done in pairs or groups, for involving students to interact to each other. Individual work is also very important for the students, in order to work at home, to prepare for the next class and to consolidate knowledge of the things they learned and to become familiar with applying them. Even if at the beginning they are not very pleased having homework, after a while the results can be seen and they are mostly positive.

Pair work

Working in pairs, students can be given the opportunity to use their knowledge in a no threatening situation and use it to complete different tasks. Activities in pairs are developed in class. They are rarely done as homework, but we tried to give them homework in pairs and the result was a very satisfactory one.

Group work

Activities involving group work are useful for engaging students in debates. The activity involves reading skills and critical thinking skills: analysis, interpretation, evaluation. As an example, students were

divided in groups of 4 or 5 persons. Each group was asked to draw conclusions about transparency in financial statements, giving reasons in support of what they claim and why not using the examples of the companies that they created on their own. Groups may have different and interesting opinions. They could bring objections to other groups' conclusions.

Other methods

We can use other methods for involving students in the process of learning. They refer to: quick questions, solving exercises, registering in accounts etc. We usually use this kind of quick questions at the end of the class as a short test, in order to check their attention during the lesson.

Conclusion

Concentrating our discussions, we consider that the main features of the new approach of teaching and learning include:

- Participatory teaching and learning. Students are actively involved in the learning process. They are invited to express their opinions and to ask questions during the teacher's explanations;

- As a result of the above mentioned feature, the interaction teacher-student will increase;

- The students are asked in advance about their learning needs. As a result, the classes will be prepared taking into account the needs of students;

- During classes, diverse patterns of interaction are developed by the teacher: pair and group work.

The activities presented in this paper are suitable for any courses of accounting and can be use by many professors in their efforts of improving the interactions teacher-student and student-student. The new methods are based as much as possible on pair or group work, games, projects. Plenary lecture or whole class learning remains the main method of transferring knowledge to students in large classes. Even so, during a session, teachers may stop the explanations and do exercises related to what they explain.

Another conclusion is that students must be trained how to learn. They want to be taught in a modern way, without writing down all the information provided by the teacher in a plenary lecture, but they do not know what a modern way implies, because the statement related to the group activities has a small average mark and group activities belong to

a modern approach of learning. The explanation may be the fact that they are less used to contribute to debates in seminars for which they are supposed to work in small groups. Solving exercises is the most common activity in classical seminars. This leads us to the conclusion that students must be taught to start identifying their own methods of learning and then trained to apply them.

It is recommended that in the new approach of teaching and learning, activities must be focused on pair work and group work learning, rather than on the individual one. Teachers should encourage students to think and to express their opinions. For enabling communication, teacher should create a friendly environment where no one is judged for the ideas expressed. Based on this, the teachers' role has changed. They act like a team member and facilitator, helping students to discover themselves their own methods of learning and encouraging them to work in groups.

These conclusions have significant implications for the work of teachers in their efforts of planning the classes. Teachers must consider students' interests and needs in designing their methods and materials. Among the roles described in the literature, we consider that the teacher's roles in the new approach of teaching and learning should be: manager, group organizer, facilitator, motivator and empowerer.

The research may be useful also for other teachers in their efforts of preparing and teaching their classes. It could be considered as a pattern of participatory learning that could be transferred to other subjects as well.

Bibliography

Facione, P. (1990). *Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction,* The California Academic Press, Millbrae, CA

Felder, R. M., Silverman, L. K. (1988). *Learning and teaching styles in engineering education*. Engineering Education, 78(7), 674-681

Gilbert, J.E., Swanier, C.A. (2008). *Learning Styles: How Do They Fluctuate? Institute for Learning Styles Journal,* Volume 1, Available at:

[http://www.auburn.edu/~witteje/ilsrj/Journal%20Volumes/Fall%202008%20 Volume%201%20PDFs/Learning%20Styles%20How%20do%20They%2 0Fluctuate.pdf], Accessed: 16 October 2012

Jackson, J. (2004). *Case-based teaching in a bilingual context: perceptions of business faculty in Hong Kong,* English for Specific Purposes 23, 213 – 232

Pheny, M., Shun, L. (*2009). Flexible role playing game engine for case studies in forensic accounting*, Proceedings ascilite Auckland, Available at: Proceedings ascilite Auckland 2009, [Accessed: 18 October 2012]

Richards, J.C., Lockhart, C. (1994). *Reflective Teaching in Second Language Classrooms*. Cambridge: Cambridge University Press

Sherrington, P., & all. (2005). *European Union Structures and Policies – Learning and Teaching Guide,* British Council, Bucharest: Cavallioti

Wang, J., Odell S.J., Klecka1, C.L., Spalding, E., Lin, E. (2010). *Understanding Teacher Education Reform*, Journal of Teacher Education 61(5) 395–402, the American Association of College for Teacher Education Available at:

[http://jte.sagepub.com/content/61/5/395.full.pdf+html], accessed 18 October 2012