

The Uses of Critical Thinking in Accounting and How It Improves Accounting Students' Professional Skills

Yuanyuan Wang*

UWA Business School, the University of Western Australia, Crawley WA 6009, Australia

*Corresponding author e-mail: 2504562356@qq.com

Keywords: critical thinking, professional skill, accounting education, result-driven communication.

Abstract: Nowadays business communication requires professionals to have critical thinking abilities as to turn ideas and language into clear and result-driven communication. In order to successfully integrate critical thinking in accounting education, it is relevant to identify the components of the critical thinking framework. This research report assesses the use and some challenges of applying critical thinking in accounting as well as considering some of the implications when comprehensively incorporating critical thinking practices. What is more, we reduce the difficulties, two commonly applied critical thinking methods are discussed.

1. Introduction

With an increasing focus on business communications related to economic activities, effective communication is attracting a great deal of attention. Effective communication can be promoted through critical thinking. This is because critical thinking improves the quality of the way information is presented and understood. Wilkin (2017, 16) states that critical thinking is the process of actively and skillfully questioning, analysing, evaluating, and looking at positives and negatives to reach a conclusion. Moreover, nowadays business communication requires professionals to have critical thinking abilities as to turn (novel) ideas and language into clear and result-driven communication. When engaged in organizations' accounting processes, it is crucial for accountants to be able to clearly and effectively communicate findings, recommendations and actions, not seldom consisting of vast amounts of data. As a means to illustrate this point, CPA Australia (2012) suggests that implementing critical thinking in business curriculums is necessary to ensure bringing forth qualified students who possess the ability to analyze different complex situations from different perspectives, and, consequently, communicate their findings in a clear, concise and cohesive manner. In order to successfully integrate critical thinking in accounting education, it is relevant to identify the components of the critical thinking framework. Kimmel (1997) points out that this identification practice will allow for evaluating what (and how) features of critical thinking can be adequately addressed by the current curricula. Therefore, this research report assesses the use and the some challenges of applying critical thinking in accounting as well as considering some of the implications when comprehensively incorporating critical thinking practices. In addition, to reduce the difficulties, two commonly applied critical thinking methods are discussed: the Challenge Problem approach and the Debate method.

2. The case for critical thinking in accounting

In accounting, the use of critical thinking should not be underestimated. For most of the accounting studies, students generally just receive factual information, learn to systematically come to finding correct answers, and then pass examinations. Parham (2013) stresses that accounting students do not learn to explain uncertainties, let alone identify alternatives and analyze supporting evidence. On the contrary, students are just encouraged to memorize (theoretical) knowledge as assigned by their educators. This poses a threat to accounting bodies and the professionals working in this field since large accounting firms agree that accountants have failed to adapt to changes in

their field and did not focus on the broader skill set including reasoning, communication and ethics, which are generally perceived to be core competencies as needed for professional success. Albrecht and Sack (2000) concentrate on the state of accounting education and examine the pedagogy, delivery and content of accounting courses. They conclude that accountants should be educated beyond the standard, rather stereotypical image of mathematical and financial experts that are output-focused. Besides, accounting students should be able to cope with the pace of change in the profession. In their research they charge that

Students forget what they memorize. Content becomes dated and is often not transferable across different types of jobs. On the other hand, critical skills rarely become obsolete and are usually transferable across assignments and careers. Accounting education has frequently been criticized for spending too much time on content mastery and too little time and effort to helping students to develop skills that will enrich their lives and make them successful (Albrecht and Sack, 2000, 55).

So, firstly, it is critical that accountants produce useful quantitative information for internal and external users in data analysis and decision making. Also, accounting is not a static but a dynamic field because the changing rate is so dramatic. Critical thinking can help accounting students to recognize the existence of uncertainties and present the possibilities of meaningful change to solve complex problems (Sin, Jones and Wang, 2015).

However, there are also existing difficulties in incorporating critical thinking into professional and academic accounting skills. When integrating critical thinking as an official learning objective for accounting courses, the first challenge is narrowing the definition and choosing suitable components of critical thinking for accounting courses. The content and language of critical thinking discourse may be considered too abstract, even perceived too technical, by the students. Young and Warren argue (2011) argue that the students are possibly unfamiliar or uncomfortable with such academic lexis and thus confused when engaging with it. Also, the definition of critical thinking may be seen as not applicable to accounting courses since many elements that are used to form the definition of critical thinking can already been found in other business courses and other academic domains. A survey of tertiary-level educators in Australia, conducted by Jones (2010, 8), clearly demonstrates that the understanding of an attribute such as critical thinking is varies greatly in different academic disciplines. Is critical thinking a theoretical toolkit (as for Economics), an examination of different perspectives (History) or using evidence, ethics and social context to solve a problem (Law)? There is thus no consensus of what constitutes critical thinking across academic fields. Yet, in addition to the definition of critical thinking (questioning, analysing, evaluating, and looking at positives and negatives) as described in the introduction of this report by Wilkin (2017, 16), here Wilkin will be complemented by the classification of the competencies of critical thinking, which is derived from a comprehensive study on big accounting firm's professionals perceptions of cognitive attributes and characteristics (Baril et al, 1998, 392): 1) recognizes problem areas, 2) recognizes when additional information is needed, 3) fits details into the overall environment (sees the "big picture"), 4) transfers knowledge from one situation to another, and 5) anticipates, thinks ahead and plans. When able to apply these five cognition-related points, an accounting student will be more likely to be successful professionally.

The second issue is the developmental level of accounting students. Accounting educators do not assume that all students have the required cognitive abilities to complete critical thinking exercises successfully. This poses problems for the quality of the study activities. Critical thinking as a learning objective, primarily in Introductory Accounting courses, is what Young and Warren (2011) consider to be crucial for cultivating students' cognitive abilities. It is a prerequisite for students and this teaching strategy is necessary to be taken serious from the beginning of each students' studies. Undergraduate students themselves have voiced concerns about their lack of understanding of how their accounting courses relate to the business world as well as other classes. The findings of an action research study by Abbott and Palatnik (2018) show that when accounting students shared their first class experiences, they were unsure about the particulars of critical thinking. When and how were they supposed to practice critical thinking? It is thus vital that educators "keep critical thinking front and center" and prepare their students to handle the complexity of the (global)

business environment.

The final obstacle is finding time to introduce critical thinking without displacing other key topics in accounting courses. As the business world becomes increasingly complex, determining the essential accounting principles also becomes more difficult (Young and Warren, 2011), but this should not go at the expense of offering critical thinking as educational method. Several principles are found as possible markers for successful use of critical thinking while guaranteeing the teaching of key topics in accounting. Springer and Borthick (2004) for example argue that shifting from knowing to thinking by implementing business simulation will stage critical thinking but will not drastically affect the curriculum. The teaching remains focused on the application of the accounting principles but it reinforces its emphasis on communication, offering alternative perspectives and the potential effects of analysis and decision making.

Young and Warren (2011) note that carefulness for educators is required when planning to encourage the development of students' cross-discipline competencies. Critical thinking needs to be carefully tailored to accounting students. Management, leadership or communication skills for example are potentially useful to develop critical thinking, but each of the related competencies have their own unique needs. They may be valuable for a management course but inappropriate for accounting. It is thus recommended to tailor and integrate such course content and not offer it as a stand-alone course.

3. The methods for professional accounting skills

While both accounting professionals, employers and accounting education acknowledge the importance of critical thinking skills and accept that it deserves more attention in accounting courses and curricula, the outstanding question remains how to best teach the skill of critical thinking, if critical thinking can indeed be regarded as a single skill. There have been numerous suggestions as how to apply critical thinking as indispensable cognitive element in accounting education.

There are various successful methodologies for incorporating critical thinking into accounting, especially as a primary learning goal of the course Introductory Accounting. The Challenge Problem approach and the Debating way are two essential methods to apply critical thinking in the practice to improving accounting students' professional skills. These two will be more closely examined in the following two paragraphs.

3.1 The Challenge Problem approach

As a learning strategy, the Challenge Problem is part of the development of critical thinking, which in essence seeks to foster an active learning classroom environment and is supported by experiential learning pedagogy. As an integral element, the Challenge Problem is a method to test accounting students' critical thinking skills during each exam. This practice is similar to Springer and Borthick's suggestion (2004) to encourage practicing with business simulations (see the previous chapter). The starting point of the Challenge Problem approach thus is turning the development of critical thinking skills into a basic objective of accounting courses. It is meant to demonstrate the application of basic accounting principles to common business scenarios, and to test the student's ability to apply the tools presented in the lectures to solve a new and unfamiliar business problem. Students spark their individual critical thinking by first breaking up a problem into several key components and then, consequently, analyse how each separate identified component contains information that may lead to finding a workable solution. This experiential learning method reinforces students' ability of critical thinking by creating categories, making comparisons and identifying similarities and differences, and grouping and classifying crucial data based on their features. This allows the students to exhibit their holistic critical thinking and demonstrate their ability to apply cross-discipline competencies. In order for students to actively trigger their self-regulatory judgment, it is crucial for them to be aware of the mix of skills they should rely on to swiftly and accurately tackle cases of the Challenge Problem testing practice.

Similar to the Debate method (see 3.2, page 9), what critical thinking, and so also the Challenge

Problem approach, as a learning objective implies when incorporating it into the accounting curriculum, is that this approach assumes creating an active learning environment inside the classroom. Hence, educators or instructors ought to foster curiosity and appropriate behavior that enables the students to consciously apply their critical thinking when taking on a realistic business test cases. What this means in practice is that educators can assign projects based on real-world business cases, so that the students can go beyond using the standard accounting principles and procedures. Frequently suggested subjects for experiential learning cases are (local) taxation policy to assess the implications of new tax legislation, and computer simulations to train spreadsheet-modeling skills in a more realistic setting that emulates common business cases (Marriott, 2004). When using the Challenge Problem approach as a concrete learning instrument, which Hurt (2007) specifies as a fundamental skill of the academic accounting core, it needs to be “consistently, purposefully and rationally [developed] over time” for students to appropriately internalize and comprehend the intricate matters that the working environment demands from them. This new educational phenomenon encourages the student to be more engaged with the (non-arbitrary, more logical) study material. Students undertake a much more holistic preparation and develop more detailed cross-sectional explanations for the decisions they make to solve the suggested business cases. The fundamental purpose is to have the students to realize the interrelation of various abstract concepts and multifaceted business principles, which will much better prepare them for a professional career after their studies.

As a result, Young and Warren (2011) propose that the exam’s structure and its administrative components should be redesigned by combining the traditional format with the Challenge Problem approach. The Challenge Problem represents a real-world business application for the learning materials. Students must apply critical thinking skills to transfer their knowledge from the familiar situation in lectures and materials to the unfamiliar situation. The challenge to transfer knowledge from one situation to another concentrates on the presentation of the problem’s data and applying the analyzed outcome as to make a sound decision.

In general, students can link accounting skills to address common business problems by using the challenging problem approach. It provides students with different purposes for studying and can make students identify the appropriate tool to address the business problems they will encounter. Consequently, the feedback from exams can help students diagnose the weaknesses in critical thinking processes and provide students with more challenge problems to practice overcoming the weaknesses.

3.2 The Debate method

Debate encourages students to develop a deeper understanding of a theoretical subject, apply their knowledge in a logically consistent manner, and interact with peers in a meaningful way. Effectiveness of debate encourages students to conduct thorough research and assess the validity of the evidence. These factors are important to critical thinking and illustrate the gains of accuracy, completeness, and relevance.

Camp and Schnader (2010) argue that critical thinking can make accounting work more efficient. While the necessity for critical thinking might be obvious, Camp and Schnader note that the options to cultivate students’ critical thinking abilities inside an accounting classroom can be challenging. One of the well-established pedagogical tools to achieve of mastering this ability is a debate among students. Firstly, the requirements for accountants are consistent with critical thinking. Accountants should develop a sense of curiosity and scepticism when engaged with complex financial tasks. In addition, accountants must have the ability to identify, analyse, evaluate, and interpret the relevant facts.

Accounting should have a clear and logical path when representing and introducing ideas and assignments. These requirements can be met by using critical thinking as critical thinking can help accountants develop the abilities of identifying, researching, analysing and implementing when involved in the decision making phase. Secondly, even though debates in accounting courses are scarce and generally not effectively used, a debate, Camp and Schnader suggest, is an excellent way

forward to help accounting students to enhance their communication skills. Students learn how to behave professionally and communicate in certain situations that are not straightforward, but they also learn how to synthesize complex material and weigh the implications of the position they take, which is much needed as students are often reluctant to challenge conventional knowledge, question the material presented by the professor or (eloquently) share their opinions during lectures. Camp and Schnader introduce two debate experiments (Tax Credit debate and Sarbanes-Oxley Act debate respectively) to show the relevance of how debating can improve students' critical thinking abilities. The debate project was written specifically to meet a range of learning objectives, which include an increased understanding of legislation on tax issues, comprehension of the tax policy process, appreciation for the law and the provisions involved, the ability to develop persuasive arguments and practicing oral presentation as well as writing skills. Camp and Schnader here follow Vo and Morris' (2006) suggestion to select an appropriate topic that is both 1) relevant to the material as offered by the course, 2) timely, and 3) significant to social and political developments. An appropriate topic allows for the student to have easy access to sources to inform themselves and determine where and how they position themselves accordingly.

The findings of their study confirm the existing literature's understanding of the importance of debating. The method forces students to assess validity, apply reason and clarity, and comprehend their opponents' opinions and concerns on the issue at hand. The practice of debate is an effective tool for expanding the specific intellectual experience of accounting students because the students are actively engaged with the topic of (tax) provisions and law. Since the responsibilities of professional accountants continue to expand beyond technical expertise and move closer towards areas of evaluation and judgment, it has become increasingly important for instructors to give students the opportunity to develop and use debating skills. Similarly, the students' feedback on the debates and the objectives was positive and they indicated they understood the added value of such a method to augment critical thinking.

4. Conclusion

In conclusion, critical thinking is a necessary factor in accounting and it is advised to be widely used by accounting students when studying and applying their professional skills in order to increase their success rate in their careers. The demand in the accounting profession for students with strong critical thinking skills is growing, and accounting educators should assist and encourage students to develop these valuable skills. There are significant obstacles to introducing critical thinking exercises in the introductory courses, but there is also a considerable amount of critical thinking literature that supports the use of experiential learning, which can be effective practices when cleverly tailored into the accounting curriculum and courses. The two methods as discussed in this paper illustrate the opportunities, desired learning objectives and, consequently, the positive findings of the Challenge Problem approach and the Debate method. The business simulation and test moment boost students' competencies. Similarly, the two introduced debate projects can be seen as strong examples of how instructors can integrate the debate experience into their classrooms. The debate format expands the students' knowledge of the subject matter and engages students' critical thinking skills that are normally not challenged by the standard accounting classroom lecture format.

Future research is needed to further improve the assessment of the effectiveness of critical thinking exercises in accounting courses. However, the lack of a generally accepted assessment methods should not delay or hinder the continued experimentation with critical thinking exercises.

References

- [1] Abbott, JI and BR Palatnik 2018, 'Students' perceptions of their first accounting class: implications for instructors', *Accounting Education* 27 (1), 72-93
- [2] Albrecht, WS and RJ Sack 2000, 'Accounting Education: Charting the Course Through a

Perilous Future'. Sarasota, Florida: The American Accounting Association

[3] Baril, C, Cunningham, B, Fordham, D, Gardner, R, and Wolcott, S. 1998. 'Critical Thinking in the Public Accounting Profession: Aptitudes and Attitudes.' *Journal of Accounting Education* 16 (3-4): 381-406. <http://www.sciencedirect.com/science/article/pii/S0748575198000232>.

[4] Camp, JM and Schnader, AL 2010, 'Using debate to enhance critical thinking in the accounting classroom: the Sarbanes-Oxley Act and U.S. tax policy.', *Issues in Accounting Education*, vol.25, no. 4, pp. 655–675. Available from: ProQuest.

[5] CPA Australia and the Institute of Chartered Accountants in Australia 2012, 'Professional accreditation guidelines for Australian accounting degrees', CPA Australia, Available from: <https://www.cpaaustralia.com.au/academics/accreditation-guidelines-for-higher-education-programs>. [23 April 2018].

[6] Hurt, B 2007, 'Teaching what matters: A new conception of accounting education', *Journal of Education for Business* 82, Issue 5, pp. 295-299. Available from: <https://search.proquest.com/openview/2650e886ad5b9e047105c740798d7ad5>

[7] Kimmel, P 1997, 'A framework for incorporating critical thinking into accounting education', *Journal of Accounting Education*, Vol. 13, Issue 3, pp. 299-318. Available from: <https://www.sciencedirect.com/science/article/abs/pii/074857519500012B>

[8] Marriott, N 2004, 'Using computerized business simulations and spreadsheet models in accounting education: a case study', *Accounting Education*, Vol. 13, Issue 1, pp. 55-70. Available from: <https://doi.org/10.1080/0963928042000310797>

[9] Parham, J 2013, 'Critical thinking in the accounting curriculum', Available from: <https://needlespowers.wordpress.com/2013/02/25/critical-thinking-in-the-accounting-curriculum>. [23 April 2018].

[10] Sin, S, Jones, A and Wang, Z 2015, 'Critical thinking in professional accounting practice: Conceptions of employers and practitioners' in M Davies & R Barnett, (eds), *The Palgrave handbook of critical thinking in higher education*, pp. 431–456. Palgrave Macmillan, New York.

[11] Springer, CW and AF Borthick 2004, 'Business simulation to stage critical thinking in introductory accounting: Rationale, design, and implementation', *Issues in Accounting* 19 (3) Available from: American Accounting Association

[12] Vo, HX and RL Morris 2006, 'Debating the issues: A tool for augmenting critical thinking skills of marketing students', *Journal of Marketing Education* 27(3), pp.264-276

[13] Wilkin, C 2017, 'enhancing critical thinking: Accounting students' perceptions', *Education & Training*, vol.59, no.1, pp. 15–30. Available from: ProQuest Central.

[14] Young, M and Warren, D 2011, 'Encouraging the development of critical thinking skills in the introductory accounting courses using the challenge problem approach', *Issues in Accounting Education*, vol.26, no.4, pp.859-881. Available from: ProQuest.