

Design of Accounting Learning Model Through the Positive Divergent Stimulation Under Mental Accounting Dilemma

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ABSTRACT

The nature of scientific accounting significantly influences cognitive processes in individuals studying the discipline. This study examines how cognitive mental processes, specifically mental accounting, shape one's ability to approach accounting concepts with innovation. Within accounting education, the Creative Problem Solving (CPS) technique, known for stimulating divergent thinking, is explored as a means to enhance cognitive creativity. This model provides learners with tools to tackle challenges, generate new ideas, and navigate transformative changes. The research emphasizes the crucial role of mental accounting in achieving success in divergent thinking in the context of accounting. Mental accounting can manifest both positively and negatively, influenced by various learning approaches. Our investigation focuses on how accounting students can cultivate positive divergent thinking amidst cognitive mental accounting dilemmas, informed by an extensive literature review. The study concludes with the development of a model that highlights the cultivation of positive divergent thinking within cognitive mental accounting challenges.

Keywords: Accounting, CPS, Divergent Thinking, Scientific Accounting

INTRODUCTION

The term “divergent thinking” describes the process of deconstructing a topic into parts and then generating as many creative, original, and varied responses as possible in the shortest possible time. This way of thinking requires imagination, flexibility, and intellectual risk taking that can be directed to the process of solving creative problems.

Accounting is an art as well as a science that involves a systematic process of identifying, recording, classifying, analyzing, and communicating economic facts and figures. The influence of each part is systemic, so mistakes at one stage will have a comprehensive effect on all decisions and performance. Therefore, accounting is very closely related to the importance of divergent thinking processes.

However, it should be noted that the scientific character affects the mental processes of a person who studies the science. The implication is that divergent thinking ability to master accounting is strongly influenced by cognitive mental processes, namely mental accounting. Furthermore, defines mental accounting as a set of cognitive operations used by individuals and groups to organize, evaluate, and track financial activities. The mental accounting process is assumed to have at least three goals, namely to simplify decisions, maintain self-control when faced with tempting consumption opportunities, and maximize hedonic pleasure from the results of decisions.

Meanwhile, the learning model that stimulates the divergent thinking process is one of the problem-solving techniques. This model is known as Creative Problem Solving (CPS). CPS is a dynamic approach where students become more skilled due to having an internal procedure which is more structured from the start and they involve activities such as document research, environmental observation, scientific activities, and creative writing (Manurung, Elfitra, & Frisniory, 2019).

Confirmed that several cognitive dimensions of mental accounting are framing effect, specific accounts, self-control, self-report and hedonic treadmill. Meanwhile, according to [5] these dimensions are the character of accounting science that stimulates students to evaluate each expenditure. Through these dimensions, students are constructed to have the ability to evaluate cost benefits through ex-ante and ex-post. Students are trained to make decisions based on which one provides the greatest benefits.

Furthermore, emphasized that through cognitive mental accounting on divergent thinking processes, students judged success from high profit growth and being able to beat competitors. The student's divergent mindset is feared to grow in a selfish, greedy power, and actually bring suffering to many people. Mental accounting can be placed on positive cognitive processes, but also has negative roots and can develop perfectly during the learning process to stimulate negative cognitive potential.

LITERATURE REVIEW

This article seeks to reveal the conceptual thinking of developing a character-based creative learning model to reach the peak of positive divergent thinking in students in mastering accounting science under the cognitive mental accounting dilemma. Given the current accounting education is not only about the accumulation of knowledge. The data collection technique used in this research is a literature study by analyzing, reviewing and evaluating various literature sources related to the development and application of accounting learning models, the character of accounting science and revolutionary thinking related to the accounting learning process. Literature sources are taken from several relevant sources (proceedings, journals, and books) to be studied, reviewed, and

a matrix is built to construct a conceptual framework presented in the form of scientific work.

Lecturers should not be bound by the norms and traditions of the past, on the contrary, they should be open to new ideas. Reforms in the field of accounting learning must be in a consistent, accelerative and synergistic direction to produce graduates who are critical, creative, moral and ethical.

When Accounting Hedonism As "Label" Mental Accounting

Accounting developed into a science to measure and evaluate performance towards the achievement of organizational goals that are assumed to maximize profits. Accounting is the language of business and a form of capitalism which is fundamentally a tool to achieve financial performance in the form of maximum profit. Accounting-translated profits in the form of profits acquire social meaning not only because they have instrumental uses in sustaining and developing life but also because wealth serves as a symbol of identity, personality and self-expression. This triggers hedonic behavior in accounting scientific tools, one of which [10] confirms that several cognitive dimensions in mental accounting construct students to have the ability to evaluate cost benefits through ex-ante and ex-post to make decisions based on which one provides the most benefits.

The hedonic view defines happiness as feeling pleasure and avoiding pain (Morgan & Farsides, 2009). This understanding stems from Bentham's tradition of utilitarianism in which utility is positive when the general state is happiness. This is achieved when the pleasant experience outweighs the painful one. Hedonism is subject to self-judgment and subjective intuition and is therefore prone to error caused by changing a person's perception of their well-being. A person may feel momentary happiness for example taking psychotic drugs that cause a temporary state of euphoria; but it contradicts the long-term rationale of the need to maintain physical health in order to maintain happiness. Hedonism has the potential to be superficial because it reduces the true value of happiness (Haybron, 2008). Because the measure of well-being is subjective, it requires individuals to evaluate their personal life satisfaction (Mee et al., 2006). So when referring to the assertion that mental accounting affects various behaviors depending on the labeling or perspective that is built on preferences, maintaining a hedonic character in accounting will affect the cognitive mental accounting of anyone who studies and practice it.

Accounting education has a goal that seems paradoxical where on the one hand it aims to change culture, humanize (Surakhmad, 2009:25), prepare for eschatological life (Tirtarahardja and Sulo, 2005: 43), free from egoism (Munandir, 2009:9) and provides a new insight into the true nature of happiness. Dillard (2009) and (Jacobs, 2011) propose a more holistic accounting based on an ethic of tolerance, compassion and the interconnection of all beings, emphasizing ethical values away from the dominant capitalist value of self-interest, providing a different but important value for driving changes in accounting.

While on the other hand accounting education has the aim of preparing students to function as competent and professional professional accountants; in an increasingly adaptive and revolutionary environment (IAESB-IFAC, 2009:51), providing useful financial information for investors and creditors as well as other users to make rational decisions (PSAK No. 1). Considering the need for rational financial information, of course, goals that are purely material are certainly not in accordance with the objectives of a more sustainable accounting education. As a result, accounting education tends to be surface-oriented rather than substance, focuses on rationality rather than intuition, and focuses on output rather than process (Triuwono, 2010).

(Csikszentmihalyi, 1999) emphasizes the growing concern that the interests attached to profit, profit and material have diverted individuals, especially the younger generation, from growing communal responsibility on themselves. Criticism of contemporary consumer society against accounting methods, marketing strategies and advertising drives accountants, managers and consumers to experience an 'affluenza', a psychological discomfort that results from a sense of deprivation and pursuit (de Graaf, Wann, & Naylor, 2005).

Many studies have written about accounting for organizational performance towards multidimensional goals that are sustainability. Research on how the role of accounting builds sustainability goals has given rise to the idea of reporting frameworks such as the Global Reporting Initiative, which provides a variety of sustainability indicators to facilitate triple bottom line assessments of environmental, social and economic performance. DesJardins (2007) asserts that the primary goal is to contribute to social welfare by producing goods and services that help people live happy and meaningful lives through the role of profit as a means to this end. DesJardins uses an analogy to explain the role of profit in business by comparing the goal of breathing and the business goal of making a profit. While breathing is very important for life but it is not the main purpose of our life. The breath and the life it sustains are means to a higher goal to achieve something more meaningful. DesJardins suggests profit is very important for business because it provides the means for financial viability and business continuity; but profit is not the main goal which DesJardins argues can confuse the means that should be good with the ends. Profit as the lifeblood (or breath) of business is a means for business that contributes to a higher social goal so that life becomes happier and more meaningful.

However, the abuse of sustainability reporting in various studies has been shown as an action to support the profit status quo above all else and actually contributes to the failure of social and environmental accounting projects to achieve net returns for shareholders. The basic theory of stakeholder theory is that business organizations must meet the needs of stakeholders where shareholders are one of many stakeholder groups that may have competing interests. or conflict in organizational performance. The corporate social responsibility discourse is to combine social and environmental objectives combined with business and financial economic objectives to produce a multidimensional set of business objectives under the banner of social responsibility or sustainability. But how is it possible that the various elements of multidimensional sustainability are balanced against each other while representing different interests with each other. This flexibility tends to lead to interpretations according to the company's preferred agenda that clearly emphasizes economic rather than environmental and social aspects (Milne et al., 2006).

Divergent Thinking Pattern

The right curriculum composition, pedagogical aspects and ideal approaches to accounting learning (concept/principles based or technical/practice based) are debated issues. This issue becomes very significant when there is evidence that the accounting education model used in most universities is outdated. This "outdated model" point of view is widely accepted and produces many suggestions for improvement to increase the value of the character education component of the accounting student learning model.

Discussions on creative thinking have increased since President Guilford's 1949 speech at the American Psychological Association (Crompton, 2006). Guilford at that time emphasized convergent and divergent thinking as patterns of thought that could not be negated from one another. Divergent thinking is very important, but it cannot be placed in a position that is no more important than convergent thinking. Although later in life, these two cognitive functions compete and contradict each other because one is superior to the other. Convergent thinking is sometimes considered inferior to divergent thinking

and vice versa. However, various studies show that generating creativity does not arise independently of divergent thinking, but also because of collaboration with convergent thinking (Crompton, 2006).

The Association of American Colleges and Universities reveals that creative thinking skills are combining or synthesizing ideas, images, or expertise in an original way, expressing experiences, reactions, and imaginative work characterized by a high level of thinking ability. While Bailin (...) said that creative thinking skills are the product of divergent thinking where logical principles are applied, through various processes of investigation and analysis to solve problems with high levels of innovation and risk taking. Creative thinking skills are characterized by stimulating competence, developing problem-solving skills, taking risks, connecting, synthesizing and changing innovatively [10].

Divergent thinking is part of the creative process with the technique of designing alternative solutions as an effort to solve problems. This activity requires significant thinking skills to create a unique or inventive answer to a problem. Students deductively plot a series of potential activity items from different points of view and assess the sequence through an analysis of strengths and weaknesses. Divergent models create thinking that prioritizes quantity and not quality (Basadur, et al., 1990). Elements of skills related to divergent thinking are flexibility, namely the ability to generate many reactions or thoughts, the ability to adapt to create fluctuating thoughts from various alternative points of view and the ability to change the structure or adjust the data. The next element of divergent thinking is originality which is the capacity to generate new reactions and elaborations (Runco & Acar, 2012).

Positive Divergent Pattern Transformation in Learning Models Under Mental Accounting Dilemma

The Framework for International Education Statements (IFAC, 2005) states that learning refers to the main process of individuals in acquiring abilities (professional knowledge, professional skills, professional values, ethics, and attitudes). Learning experiences are formed from formal and systematic or informal and unsystematic activities. When individuals go through a formal and systematic process, that is what is called education. Learning is a process where activities begin and then change through reactions to situations faced by students. So it can be said that learning is reacting when changes occur because of events or situations that occur. So learning involves two things, namely cognitive and affective potential.

Cognitive potential can be grouped into knowledge, understanding, application, analysis, synthesis and evaluation. While the affective aspect has the aim that both students and lecturers can use the heart or soul element in the learning process. Learning not only emphasizes what is taught but also how to teach it. To achieve learning objectives, it is necessary to use appropriate learning methods. The effectiveness of the transformation of positive divergent patterns in the accounting learning model is largely determined by the role of educational institutions, educators and accounting students themselves. Each of these parties plays a very important role in the effectiveness of the transformation of positive characters in the learning model caused by several factors, namely the curriculum, learning facilities, educator's point of view, learning experience and student motivation. Each factor and role are interrelated with each other. Therefore, synergy from related parties is needed so that the positive divergent pattern is able to color the accounting learning model. It aims to create accountants who behave ethically and uphold ethical values in carrying out the accounting function.

Furqan (2009) states that in order for the accounting education process to increase the competence of graduates who have positive characters, a learning method is needed

that is able to mediate positive divergent thinking patterns through the transformation of ethics, student knowledge, educational technology that stimulates the growth of students' competencies and potential. However, there are several issues that are still being debated among practitioners and academics regarding the transformation of positive divergent patterns in accounting learning.

The decision-making process that puts forward a positive character is not an easy thing. The inability to give satisfactory moral conclusions on some ambiguous questions about morality tends to confuse students, resulting in cynical behavior towards the positive character that is the goal of ethics. For example, we can find this in some creative accounting discussions. It even appears that the positive character brought by the positive divergent pattern is too abstract to be communicated to students. This ambiguity problem reinforces the need to evaluate learning models so that the implementation of positive characters in each accounting study can be clearly understood through the identification of key elements of the problem (Earl, 2012).

Analyzing the positive character of mental accounting dilemmas in positive divergent patterns, students will realize that every dilemma has a solution. Although an analysis involving a positive divergent pattern cannot give an absolutely perfect answer, it can at least give an idea of something that is more precise, effective or better than the other answers. Therefore, the ability of students to carry out accounting analysis without negating the positive character is largely determined by how the learning model is able to transform ethics in students' divergent thinking patterns.

RESEARCH METHOD

Research by Furqan (2009) confirms the need for a synergy of positive divergent patterns in the learning model and educational technology of students to improve the quality of competence of accounting education graduates. Bean and Bernardi, 2007 stated that to achieve learning objectives which in the process involve a positive divergent pattern, a learning model is needed that forms students' perceptions of the importance of positive characters in carrying out the accounting function so that they can think critically before making decisions that have positive ethical implications.

The accounting learning model that has a positive divergent pattern exists is the creation of learning methods that continuously cultivate a positive character. Its success is supported by the cooperation of several parties, namely 1) accounting education institutions in preparing the curriculum; 2) learning facilities; 3) the role of accounting educators' perspective (academics) in interpreting positive divergent patterns based on the construction of life experiences and training related to positive character values that are followed; 4) the role of students through their learning experiences in the environment in which they grow. Learning methods that stimulate positive divergent patterns are an important factor in determining the effectiveness of building positive characters under mental accounting dilemmas in accounting learning. The effectiveness of the learning model that stimulates a positive divergent pattern is indicated by how much students perceive the importance of positive behavior in carrying out the accounting function. When students form the perception that a positive divergent pattern is very basic in carrying out the accounting function, it is hoped that accounting graduates will be formed who have professional values, ethics and attitudes in carrying out the accounting function, as well as being an indicator of learning effectiveness.

The learning method is a medium of interaction between educators and practitioners with students facilitated by educational institutions in the form of curriculum and learning technology facilities. So the position of learning methods is a tool or technique of mediator of positive divergent transformation in the learning process. Likewise, the

accuracy of educators in determining learning methods is largely determined by their experiences and perceptions of positive divergent patterns. Educators who have training experience on positive divergent patterns will better understand the various methods that can be used in every meeting in the classroom. On the other hand, although students have a lot of learning and work experiences as well as great extrinsic motivation, when the transfer of knowledge is not carried out with the right learning method, it causes students not to be able to find the urgency of learning about positive divergent patterns so that they do not make positive character a factor that important in supporting the effective implementation of the accounting function.

Learning Model Construction Stimulating Positive Divergent

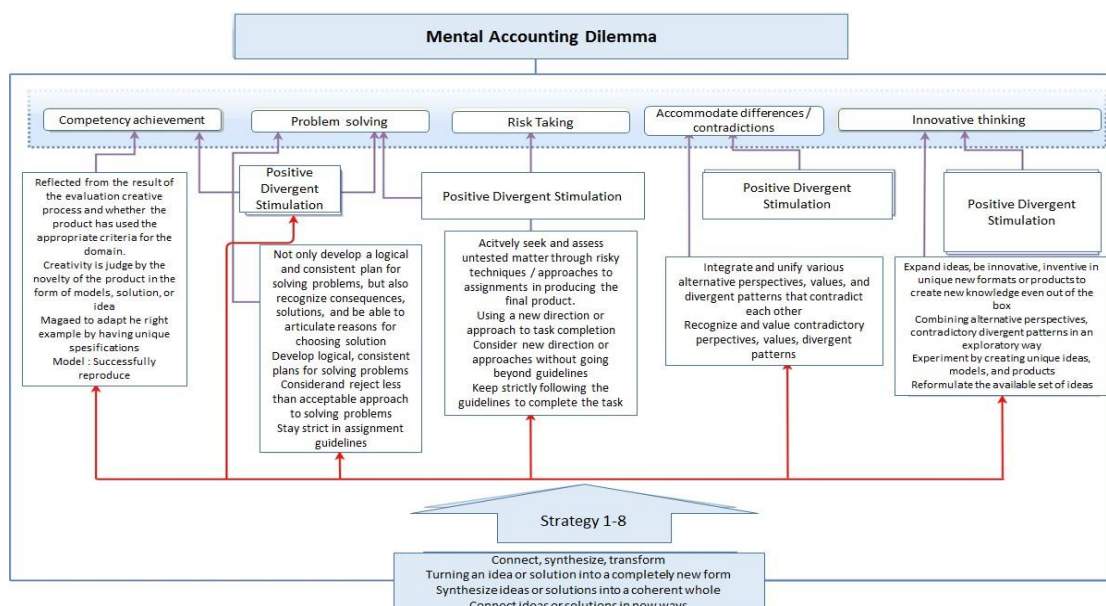
The learning model in most accounting curricula is more effective using collaborative learning methods that emphasize leadership, decision making, trust building, communication and conflict management, or in the form of case studies, literature studies and role playing. This method builds student engagement with the problem, stimulates problem solving by fostering positive divergent patterns and provides insight into how it feels to experience the problem.

So far, the problem is perceived as a gap between expectations and reality [8]. Meanwhile, in the learning model, the point of view that problems are identical with negative connotations must be turned into an interesting challenge to face and solve. Creativity is an important key in the process of facing & solving. Therefore, creativity and problem solving are intertwined and interconnected. Creative activities for problem solving are reflected by persistence, difficulty in problem formulation, novelty of ideas and current.

The collaborative learning model comes from three words: creative means lots of new and unique ideas to create solutions, problem means a condition that provides interrelated challenges and opportunities, solution means designing ways to answer or find a solution to a problem. Collaborative learning model framework designed to help solve problems by using creativity in achieving goals and improving imaginative and innovative thinking skills [11].

RESULTS

The collaborative learning model can be defined as the ability to plan unique ways or ideas to solve a problem. Collaborative learning models in the context of learning models can be applied and in varied forms because each student has a different level of creativity, style, and way of applying the learning model. The main principles of the collaborative learning model are: 1) balance in divergent and convergent thinking, 2) there are research problems, 3) there is an assessment process [8]. The collaborative learning model assumes that everyone has creative potential and creative skills where this potential can be learned and improved [14]. The collaborative learning model needs to be supported by a learning environment that can empower students to learn actively [15]. The collaborative learning model can stimulate people to think creatively because everyone has the potential to be creative. This can be explained in Figure 1:



Strategy 1 - Reverse the Question/Answer Concept

This approach is based on a simple premise rather than asking questions for which the correct answer is already available, it is better to ask students to construct or construct problems based on the reality that occurs. Questions such as "What is the strategy to increase sales while maintaining cost efficiency?" or "How to sustain financial stability in a pandemic situation?" This type of question encourages students to think in a different way. Using brainstorming techniques, students are encouraged to formulate and solve problems based on relevant references. Students are encouraged to conduct a clear and sharp analysis, looking at various points of view whether the subject, location, demographics or whatever is deemed appropriate.

Strategy 2. Build a Tolerant Culture

Building a class point of view is the spirit of respecting and accepting any differences, be it gender, desires, opinions as well as beliefs and perceptions. This supports to create an environment where mutual judgment is controlled and mutual respect so that increasing students' ability to refrain from judging others will open up a learning environment for free but controlled exchange of ideas. Students are free to express their thoughts and opinions when they are not afraid of being judged for their differences. Thus, they become confident to share different thoughts and ideas. In specific terms, the positive divergent thinking phase is avoiding judging an idea as good or bad just for reasons of difference.

Build a tolerant environment for divergent thinking to thrive, by creating an environment that allows for failure, agrees to multiple expressions and encourages risk. Educators must facilitate and support individual expression to encourage divergent thinking among students so that the classroom environment is more innovative and creative. This strategy also significantly helps students become familiar with problems and solving topics so that they find more than one workable solution, change perspectives and appreciate diversity in thinking.

Strategy 3 – Think Open

Value-based or personal point of view feedback should be replaced with critical and analytical question-based feedback. This inquiry-based feedback synergistically with in-depth observation motivates students to adopt a more in-depth and open-ended approach to assessing the opinions and work of others. Instead of expressing likes and

dislikes students are encouraged first to spend a few minutes observing things around them in detail and then asking questions like, “why” and “I observed that...” and “how it works...”.

Strategy 4 - Positively Framing Failure

Framing failure not as a reason to quit but as part of the literacy and reflection process. Playing and experimenting become dominant features of the classroom environment when students are not afraid to make mistakes in their endeavors. Failure is presented as a situation where students get time to introspect and devise new strategies to 'improve' their project or idea. Divergent thinking is built on “physical, social and cognitive spontaneity; embodies joy and a sense of humor”

Success in finding ways to incorporate fun, play, and humor into the curriculum paved the way for students to think differently. Divergent thinking strategies are very helpful in nurturing creativity in the learning environment and help in acknowledging, appreciating and celebrating differences in various areas of life. Many benefits can be derived from this creative possibility when students are given the freedom to be who they really are.

Strategy 5 – Splitting Convergent Divergences

Individuals tend to engage in divergent thinking when we are faced with an unusual point of view. Collaboration explores many opportunities to find unconventional approaches and explanations for problems. Collaborative learning experiences encourage educators to develop and enrich other schools of thought in future research plans.

Separating divergent thinking from convergent thinking helps in the creation of new ideas. Brainstorming techniques help in generating ideas that are out of the box because they are based on the free-wheeling principle.

Strategy 6 – Learning Games

Placing a group of students as parties who always oppose and question the reasons, arguments and assumptions of other students. Even these opponents sometimes realize that what other students put forward is in accordance with their own thoughts, but because they are placed as opponents, they inevitably have to try to defend their arguments to defeat the opinions of other students.

Strategy 7 – Dig When Limited

When an individual faces a shortage of resources, he is stimulated to explore unconventional ways to use the available resources available to him. Creativity can be grown in a variety of different techniques by educators, one of which is the assignment of prototypes. Prototyping involves a passion for taking on challenges by moving quickly under time constraints. Through this activity, students develop the ability to take risks in their creative process. In addition, students are also accustomed to developing creativity that helps them to plan, implement and rework when they fail.

DISCUSSION

The discussion section delves into the implications and insights derived from this study on the intersection of scientific accounting, cognitive mental processes, and creative problem-solving techniques. The key findings and their significance are elaborated upon to provide a comprehensive understanding of the research's contribution to the field of accounting education.

Impact of Scientific Accounting on Cognitive Processes: The study underscores the substantial impact of scientific accounting on individuals' cognitive processes. The complex and structured nature of accounting significantly shapes the mental landscape

of those engaged in the discipline. It affects how individuals perceive and approach accounting concepts, emphasizing the need for innovative thinking in this field.

The Role of Creative Problem Solving (CPS): Within the realm of accounting education, the study explores the utility of the Creative Problem Solving (CPS) technique. This technique, renowned for stimulating divergent thinking, equips learners with the tools to confront challenges, generate novel ideas, and navigate transformative changes. It offers a valuable framework to enhance cognitive creativity in the context of accounting.

The Crucial Role of Mental Accounting: The research underscores the pivotal role of mental accounting in achieving success in divergent thinking within accounting. Mental accounting is revealed to be a cognitive construct that can manifest both positively and negatively, depending on the learning approaches employed. This duality highlights the need to foster positive cognitive processes while mitigating the potential for negative cognitive impacts.

Cultivating Positive Divergent Thinking: The core focus of this investigation lies in understanding how accounting students can cultivate positive divergent thinking amidst cognitive mental accounting dilemmas. The study leverages an extensive literature review to inform its insights, drawing from existing research to provide a well-rounded perspective.

Development of a Positive Divergent Thinking Model: The culmination of this research is the development of a model that emphasizes the cultivation of positive divergent thinking within the challenges posed by cognitive mental accounting. This model serves as a practical guide for educators and learners, offering a structured approach to nurturing creative thinking in the field of accounting.

In summary, this study's findings highlight the intricate interplay between scientific accounting, cognitive mental processes, and the CPS technique. It sheds light on the importance of cultivating positive cognitive processes, particularly in the context of accounting education, and offers a valuable model for enhancing divergent thinking. This research contributes to the broader dialogue on creative problem-solving and cognitive approaches within the accounting discipline, paving the way for more innovative and effective accounting education strategies.

CONCLUSION

This study underscores the profound impact of scientific accounting on cognitive processes and the imperative need for innovative thinking within the discipline. It has shed light on the significance of nurturing cognitive creativity in accounting education and offers insights into the role of the Creative Problem Solving (CPS) technique as a framework for stimulating divergent thinking.

The study emphasizes the pivotal role of mental accounting in achieving success in divergent thinking within accounting. It recognizes that mental accounting can manifest both positively and negatively, contingent on the learning approaches employed. The research guides us in understanding how accounting students can cultivate positive divergent thinking in the face of cognitive mental accounting dilemmas, informed by an extensive literature review.

In culmination, this research presents a model for the cultivation of positive divergent thinking within the challenges posed by cognitive mental accounting. This model provides a practical roadmap for educators and learners in the field of accounting, facilitating more innovative and effective approaches to accounting education.

Ultimately, this study contributes significantly to the ongoing discourse on cognitive processes, creative problem-solving, and their role in accounting education, promising a more dynamic and enriched educational experience for future accountants.

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