

CPA and Beyond: How Universities are helping students evolve into strong critical thinkers

1. Understand the CPA Evolution initiative and its impact on the CPA licensure model
2. Understand the impact of CPA Evolution on the need for strong critical thinking skills
3. Understand how universities can help students evolve into strong critical thinkers
4. Understand how strong critical thinking skills can help shape careers in accounting

1. Understand the CPA Evolution initiative and its impact on the CPA licensure model

Accountants as Business Professionals

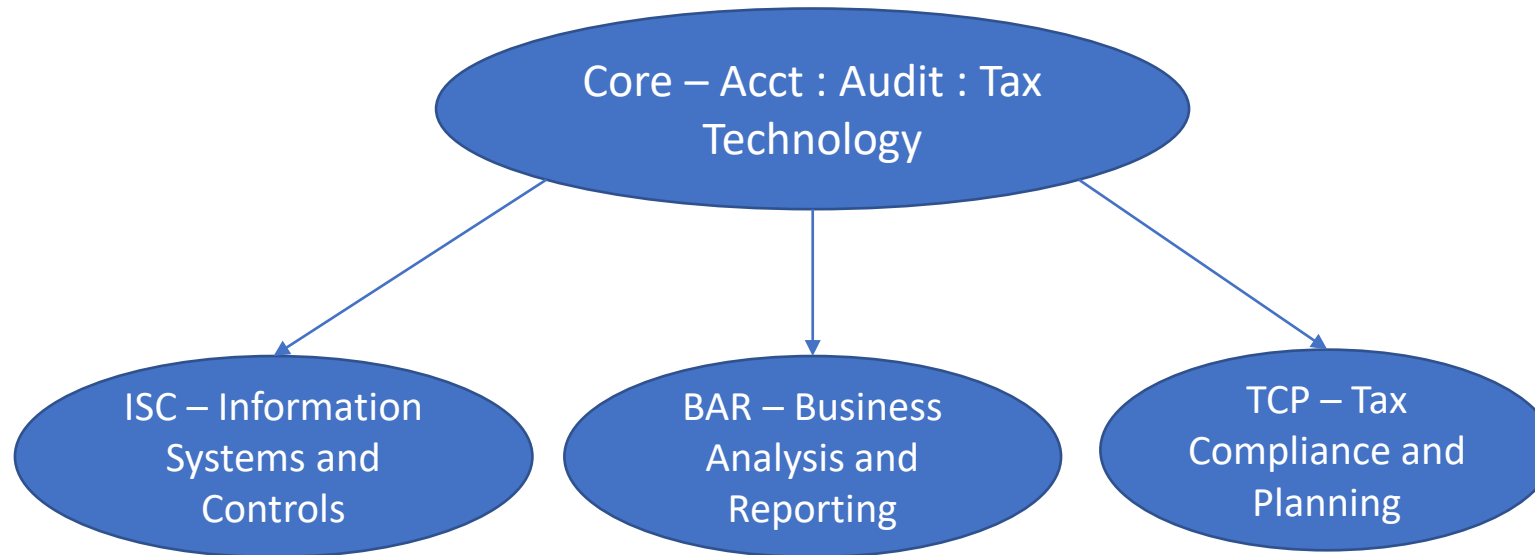
- The accounting profession is evolving at a rapid pace, so changes to accounting education is essential.
- Accounting graduates need to contribute more quickly to their organizations using higher-level critical thinking skills.
- This will help ensure that the profession maintains relevance and competence.

AICPA Gap Analysis

The AICPA recently performed a gap analysis at universities to assess if the universities were focusing on relevant topics. In many cases, less than half of the universities reviewed were covering on the topics.

- Data Analytics – 64%
- IT Audit – 63%
- IT Risk – 43%
- IT Governance – 41%
- Cybersecurity – 40%
- Predictive Analytics – 40%
- SOC reporting – 23%
- Overall digital acumen – 23%

The new path to CPA



The new path for a CPA

- The core exam will focus on the skills related to financial accounting, auditing, and tax. Within these areas, the impact of technology on those core skills will be assessed.
- This will require candidates to have deeper knowledge within those core areas.
- Candidates must also choose one (and only one) discipline exam based on an area of interest.
- All sections will test a range of skills including higher-order skills

CPA Evolution impact on the exam

- Core level – at the understanding level.
 - Intermediate Accounting
 - AIS
 - Auditing
 - Managerial
 - Tax
- Discipline areas – at the application level
 - ISC – Info Systems, Info Sec, IT Audit
 - BAR – Assurance Services, Financial Statement Analysis, Ops Mgmt.
 - TCP – Entity/Individual Tax planning and compliance, Financial Planning

Exam Timing

- Blueprint for public comment should be available in mid-2022
- Blueprint should be finalized early in 2023
- The new exam will be launched in January 2024

The song remains the same

- The subject matter will be for candidates at the one-to-two-year level of experience.
- The length of the exam in terms of total hours should not exceed the current total hours (16).
- Candidates will have to pass 4 exams in order to qualify for the CPA (3 core exam subject, plus one from the discipline area).

2. Understand the impact of CPA Evolution on the need for strong critical thinking skills

Required Skills for Accountants

- According to the data presented by the AICPA, 44% of the core skills needed to perform job functions will change in the next 4 years.
- Many of those new skills in demand are related to higher levels of cognitive abilities. These skills include analytical abilities, complex problem-solving, and critical thinking.

Accountants as Business Professionals

- Increasingly, the role of an accountant is to help address business opportunities.
- To address business opportunities, accountants need to decide what information is needed, gather the necessary information, and analyze that information to offer helpful advice to management.
- Given that businesses are consistently evolving, and accountants need to be prepared to make rapid decisions because they function in critical roles. These are roles that require higher levels of cognitive ability.

Critical Thinking in the real world

- For example, within the realm of auditing, auditors must rely heavily on their professional judgment to help them make decisions. The use of higher levels of cognitive ability can assist accountants in applying that professional judgment.
- When accountants use critical thinking and reflective judgment to help evaluate the situation's complexity, they can use their professional judgment more effectively and make the correct decision for that situation, while understanding that a new decision may be needed if new data is received.

The impact of accountants

- Higher levels of cognitive ability are critical in today's business world, especially with the increasing reliance on big data to help within the decision-making process.
- When accountants can grow their cognitive skills, they are shown to have a have better ability to recognize diagnostic versus non-diagnostic information.
- But as critical as cognitive abilities are to the potential success of an individual, that individual must possess sufficient interpersonal skills to go with high cognitive abilities.
- These skills will be vital to accountants because they are transferrable skills.

CPA Evolution impact on accounting programs

- This will be an opportunity for many universities to update curriculum
- Despite the need to update, much of the core subject matter in accounting is still very important
- The change is coming from IT areas that are impacting the accounting profession, like data analytics and cybersecurity. These are areas that require high levels of critical thinking and overall cognitive abilities

3. Understand how universities can help students evolve into strong critical thinkers

Fischer's Skill Theory

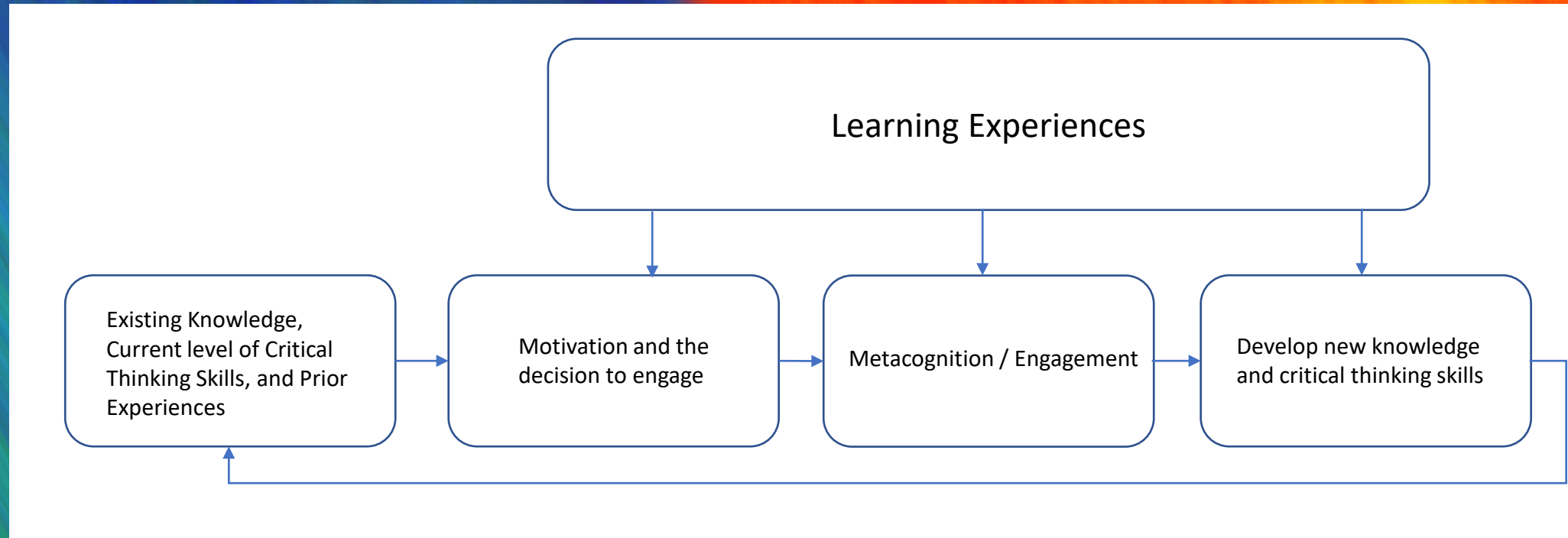
- Fischer noted that growth cycles occur in brain and cognitive development over time.
- The cycle of growth for cognitive development starts when an individual is around 2 years old and moves through a series of ups and downs in performance levels which continue into adulthood.
- Research into behaviors shows that the capacity for advanced abstract thinking, which is the foundation for reflective judgment, start to emerge during early adulthood.

Fischer's Skill Theory

- Reflective judgment cannot develop until adults begin to think abstractly because reflective judgment requires the coordination of multiple views.
- Individuals move through periods when their skills grow at a faster pace because they are in an environment that support optimal performance.
- Outside of those environments, they operate at their functional performance level. During functional performance, they are not pushing the limits of their cognitive ability (optimal performance), and they grow slowly, or do not progress at all.

Framework for linking learning experiences to cognitive development.

Adapted from Marzano and Kendall (2007)



Importance of the university environment

- Based on meta-analyses of higher education research conducted over the last 30 years, students exposed to the university environment generally develop higher levels of cognitive ability compared to individuals who do not attend college.
- Students become more critical, reflective, and sophisticated thinkers during their college years and that college significantly enhances their general intellectual and analytical skills, critical thinking, and intellectual flexibility (Pascarella and Terenzini, 2005).

Importance of the university environment

- Universities recognize the importance of strengthening the critical thinking skills of their students because the profession of accounting requires more creativity and innovative thinking to stay competitive within the market.
- Cognitive development can only occur when individuals allow their growth and experiences to enhance their thought processes, stay engaged until they reach their optimal level of cognitive ability, and work to maintain that optimal level.

Importance of the university environment

- Universities provide the opportunity for students to continually engage in the growth, learning experiences, and thought leadership that allows them to enhance their cognitive abilities and reach their optimal level.
- In addition, universities provide a foundation for the motivation and support necessary to maintain that optimal level of cognitive performance.

4. Understand how strong critical thinking skills can help shape careers in accounting

Advanced skillsets

- Despite the current IT focus on data researchers and programmers, the skills that are most in demand and growing the fastest are related to skills taught to accountants.
- A recent survey conducted by Burning Glass Technology showed half of the top 8 skills have a direct relationship to concepts taught to accounting students and used by accountants in the field to provide services to their clients.
- Those areas require the constant use of critical thinking skills.

Skill	5-Year Projected Growth
Application Development Security	164%
Cloud Security	115%
Risk Management	60%
Threat Intelligence	41%
Incident Response	37%
Compliance and Controls	36%
Data Privacy and Security	36%
Access Management	32%

Using advanced skillsets to help clients

- A recent article in the Journal of Accountancy (Aug. 2021) noted that CPAs helped play a vital role in helping businesses survive during COVID.
- In one instance, 75% of the firm's clients were restaurants and other businesses that was impacted the hardest. Because the firm had a strong Client Advisory Service (CAS) section, they were able to quickly response and help those clients stabilize and if necessary, reposition.
- They were able to accomplish this by partnering their existing knowledge of the company's finance with new solutions that could improve the viability of the company.
- The firm was then able to run those solutions by using advanced formulas in Excel to test outcomes of scenarios.

Multiple avenues to use critical thinking skills

- While the CPA is the “gold standard” for accountants, there are numerous other paths that can be traveled by accountants that help them have successful careers.
- Other certifications include
 - CMA – Certified Management Accountant
 - CISA – Certified Information Systems Auditor
 - CFE – Certified Fraud Examiner
 - CISSP – Certified Information Systems Security Professional
 - CDPSE – Certified Data Privacy Solutions Engineer

Multiple avenues to use critical thinking skills

- Within all those domains, individuals with strong backgrounds in accounting can use that background to provide core knowledge to help them pass those certifications.
- Within those environments are constantly evolving situations that contain ill-structured problems where more than one decision choice exists.
- Those situations require high level of critical thinking and reflective judgment due to the complex nature of those environments.
- Accountants with higher cognitive abilities will be best position to make the right decision for that moment and use those opportunities to help elevate their career.

The moral of the story

- NEVER STOP LEARNING
- Continually engage in the growth, learning experiences, and thought leadership that allows you to enhance your cognitive abilities and maintain their optimal level.
- That dedication to learning will sustain a positive trajectory for your career, help you be a trusted partner to businesses, and help the accounting profession stay relevant.