Framing the Processes in Asynchronous CPD Online for Accounting Teachers in the Philippines

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ABSTRACT

The BoA Resolution No. 358-2016 requires increasing the Continuing Professional Development (CPD) requirements for all Certified Public Accountants(CPAs) from 60 to 120 units. This action intends to strengthen the Accountancy profession in the Philippines and be globally comparable with the CPD requirements for CPAs in other countries. For CPAs in Education, the most pressing issues that have to deal with the increase of CPD units are the costs of the CPD and the disruption of their classes when they attend seminars which may affect the quality of their classroom instructional delivery. With the Pandemic in the Philippines, CPD activities were delivered online. These opened a new perspective for value innovation in the delivery of CPD through asynchronous methodology. This research paper used mixed methods to frame processes for the asynchronous CPD. The researcher surveyed 242 accounting teachers from 72 universities and colleges in the Philippines to assess the need and preferred features for asynchronous CPD Online and identified and proposed components of processes using the empirical case study method.

Keywords: Continuing Professional Development(CPD), Asynchronous CPD Online, Processes, Systemic Design, Process Design

INTRODUCTION

Business to Business (B2B) transactions across different countries require enterprises in the value chain to maintain transparency about their financial status and performance (Romar, 2015; Longo et al., 2019). Integrating e-commerce, digitization, and business process outsourcing in enterprise

supply chain operations has increased the demand for high-level competent accountant-advisors and accountant-consultants (Gulin, Hladika, & Valenta, 2019). Investors and top management need reliable financial information to make critical economic decisions for their companies and partner companies (Vokshi & Krasniqi,2017). With the expansion of business enterprises into different economies, there is a movement toward internationalization and mutual recognition of the accountancy profession across countries (Rivera, Cudia, & Tullao, 2019). Certified Public Accountants (CPAs) have to competently provide assurance, auditing, taxation, sustainability reporting, and other accounting services to ensure the reliability of financial information in the value chain.

The International Federation of Accountants(2020) expressed that Continuing Professional Development (CPD) is necessary for carrying out the role of a professional accountant. Further, CPD is learning and development that enhances and sustains the professional competence of professional accountants enabling them to be updated with current standards and accounting practices locally and internationally. IFAC(2020) requires member bodies, including the Philippine Institute of Accountants (PICPA), for each professional accountant to complete at least 120 hours of relevant professional development activity in each rolling three-year period and measure the associated learning activities. IFAC's (2020) guidance highlights the importance of accountants identifying their learning needs to ensure that their CPD activities are relevant and suitable for their professional development.

In the Philippines, CPD is a mandatory requirement in all professions with licensure examinations (Republic Act No. 10912, 2016). This requirement is applied to sustain the quality standards in delivering the services of the professionals in the country. In the field of Accountancy, BOA Resolution No. 358-2016 requires increasing the CPD requirements for all CPAs from 60 to 120 units. The 100% increase intends to strengthen the accountancy profession in the Philippines, meet the need to be globally comparable with CPAs in other countries and adhere to the IFAC CPD standards. Further, the Board of Accountancy(BOA) undertakes the accreditation for CPAs who are in the teaching profession. The accreditation process also requires the completion of the mandatory 120 CPD units for the CPAs.

As much as there is a need for teachers to have themselves go through CPD, on February 3, 2017, the BOA(2017) had on its list only 829 accredited accounting teachers. The dissertation of Tugas(2017) showed that there were 3,297 Filipino CPA teachers in the country as of June 30, 2016. In 2020, the Philippine Institute

of Certified Public Accountants (PICPA) had in its database only 759 CPAs in education who are members in good standing. This is viewed to be a challenge for the BOA to push for implementing the CPD requirements and accreditation of Filipino CPAs in education. Before COVID-19 hit the Philippines, the BOA had undertaken school field visits and partnered with the National Association of CPAs in Education(nACPAE) to conduct regional CPD activities(nACPAE, 2020). This aimed at providing opportunities for CPD units for CPA teachers in the countryside at the same time, creating greater awareness of the importance of CPD.

At the time of the Pandemic in the Philippines, most CPD providers utilized CPD online delivery mode through synchronous platforms such as Zoom, Google Meet, and Microsoft Teams for continuing education. Synchronous CPD typically involves real-time interaction with resource speakers and participants through video conferencing, webinars, or online meetings. However, poor internet connectivity can result in frequent interruptions, freezes, and dropouts, making it difficult for the participants to follow the discussion or engage in meaningful interaction. While internet diffusion in the Philippines has been increasing in recent years, many areas still have limited access to broadband services, which affects the quality of the synchronous learning environment. Accordingly, asynchronous learning can provide a solution to this problem by allowing learners to access educational materials offline and complete activities at their own pace(Basri, Husain, & Modayama, 2021). The asynchronous methodology for CPD allows flexibility to acquire CPD units in a low connectivity environment.

An organized asynchronous learning environment utilizes a Learning Management System(LMS). Instructional materials, such as videos and reading resources, can be meaningfully uploaded, and learning activities can be accessed and completed by the participants at their convenience and when they have a good internet connection. The asynchronous learning environment is very suitable for adult learners as they can progress in their CPD at their own pace to balance their time for work, family responsibilities, and CPD. Flexibility in CPD is an important motivating factor in e-learning for professionals(Xing et al., 2020; Lawn, Zhi, & Morello,2017).

Professionals in many countries have employed the asynchronous type of CPD as they move towards strengthening self-regulation in CPD. Examples of these are the American Institute of Certified Public Accountants(AICPA), Chartered Professional Accountants of Canada, and Institute of Management Accountants(IMA) which offer various asynchronous learning options for

CPAs, including on-demand webcasts, self-study courses, and online certificate programs. These options allow learners to choose the format and delivery method best suits their needs and learning style.

In the Philippines, the asynchronous mode of CPD is at its early implementation stage. Few CPD providers are exploring CPD using asynchronous tools. In 2018, the CPD Council, which monitors CPD in the Philippines, conducted focus group discussions and consultations with CPD providers to develop guidelines for implementing asynchronous learning in CPD, more commonly known as CPD on demand. There are reservations about the effectiveness that the CPD on demand provides and whether it can achieve learning outcomes comparable with the traditional face-to-face conferences or seminars provided by the CPD providers. Some processes must still be developed to integrate the operations of CPD Providers, CPD Council, and CPD participants that can optimize the asynchronous tools, provide check and balance, and achieve value-added processes.

Kagermann, H. (2014) expressed that the networking of people and things and the convergence of the real and virtual worlds that are enabled by information and communication technology (ICT) will be the most powerful driver of innovation over the next few decades and will act as the trigger of the next wave of innovation. We should seize the opportunity to leverage the advantage brought by automation and harness it in order to create a work-life balance(Gigauri,2020). The arrival of internet and cloud technologies offered great potential for CPD to support a more accessible, personalized, and learner-centered CPD. Asynchronous CPD can offer a solution to the complex problem of the inability of accounting teachers to cope with the challenges of meeting the CPD requirements for renewal of license and accreditation. The asynchronous learning environment can be designed and developed to meet the needs of accounting teachers for CPD units and improve the processes in the delivery of CPD. This paper offers a process design that can organize and integrate processes of the PRC BOA, CPD Council, CPD providers, and CPAs in education for value creation.

FRAMEWORK

The development of Asynchronous CPD processes, as proposed in this paper, was guided by the adult education learning theory of Andragogy(Knowles, 1980). According to Malcolm Knowles(1980), adult learning has a preference for

self-directed learning, the use of their experiences to draw learning, willingness to learn when transitioning into new roles, focus on applying new concepts to real-life situations and problems, and a tendency to be internally motivated rather than externally. The principle of Andragogy emphasizes that adults must have an awareness of why they need to learn something before embracing it (Knowles, Holton, & Swanson,1998). Further, it states, "Adults have a self-concept of being responsible for their own decisions, for their own lives" (Knowles et al., 1998). This theory asserts that adults need to be self-directing in which the individual feels that one has a choice in the direction or goal of learning. Adults derive self-identity from their experiences; it is the integral nature of prior experience to the identity of the adult learner; when their "experiences are ignored or devalued, adults will perceive this as rejecting not only their experience but rejecting themselves as persons" (Knowles et al., 1998).

Adult learners are likely to be more motivated to learn if they choose the topic, and socioemotional selectivity theory suggests they would be more likely to choose a topic relevant to their current problems (Houde, 2006). The learning environment that allows adult learners to reflect on how new knowledge can be utilized to make them competent deepens learning. The Adult learning theories guided the researcher on how to set up a CPD asynchronous learning environment in the processes to promote deep learning engagement of the accounting teachers for CPD.

In the development and process design, systemic design theory was adopted. According to Nelson & Stolterman (2014), systemics are a set of ordering and organizing logics and framing strategies, when infused into the design, to ensure that the design can be made relevant and viable in today's complex and demanding contexts of change. Systemic Design is the integrated application of system thinking and design thinking (Jones, 2020). Ryan (2014) expressed that a key concept of systemic is interdependence: webs of reciprocal influence between parts of a greater whole and their environment. He suggested that a systemic design mindset is inquiring, open, integrative, collaborative, and centered. Further, he emphasized that systemic methods encourage the team to embrace complexity and model an issue from multiple perspectives and at multiple scales. They illuminate sources of emergence, self-organization, and adaptation. Systemic methods evaluate the fitness of design concepts relative to a broader context. According to Burns, Cottam, Vanstone, & Winhall (2006), a design goes beyond problem-solving, and a good design creates products, services, spaces, interactions, and experiences that not only satisfy a function or solve a

problem but that are also desirable, aspirational, compelling and delightful.

In the study of Van der Bijl-Brouwer & Malcolm (2020) on expert practices in using a systemic design from five case studies, they were able to present five systemic design principles: 1) opening up and acknowledging the interrelatedness of problems; 2) developing empathy with the system; 3) strengthening human relationships to enable creativity and learning; 4) influencing mental models to enable change; and 5) adopting an evolutionary design approach to desired systemic change. Figure 1 presents the framework adopted in this paper.
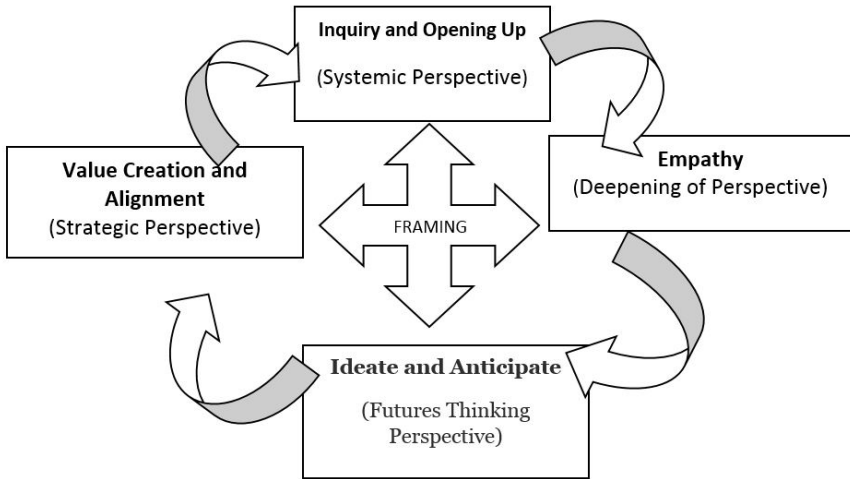

Figure 1. Systemic Process Design Framework.

Framing in this study cuts across all perspectives in the framework, as shown in Figure 1. Opportunities for value innovation in the processes are spotted by widening the perspective of the designer. The paper of English (2008) revealed that multiple perspective problem framing could identify hidden value for an opportunity. This multiple-perspective approach to framing design problems and opportunities requires designers to acknowledge their cognitive processing talents and capabilities to give form to evolving networks of ideas. In other words, the designer must develop ways to engage with and make sense of interrelated information so that it is not lost in a fog of complexity. Ryan (2014) expressed that the most crucial role of inquiry is to expose external perspectives and different world views that provide opportunities for reframing. Opening up the problem and space and acknowledging the interrelatedness of problems is a systemic perspective (Bijl-Brouwer & Malcolm, 2020). English (2006) posited that the

potential for innovation is related directly to the problem-framing process that provides the bounds in which the instability of the creative process can occur.

In this study, the inquiry is made by looking into and understanding the environment, needs, and goals of the CPAs in education on CPD. While opening up, considers the roles and goals of PRC BOA, CPD Councils, CPD providers, universities where the CPAs teach, and other stakeholders and how they cut across one another. Empathy is the deepening of the perspective of the stakeholders and understanding their aspirations and desires in the light of setting a system of processes (Bijl-Brouwer & Malcolm, 2020). Ideate and anticipate are creative framing of processes to develop ideal future scenarios. Futures thinking perspective allows the designer to analyze processes for sustainability and develop processes to prevent potential risks that are anticipated (Kamble, Gunasekaran, & Gawankar, 2018). The researcher views a strategic perspective to organize value-adding processes rather than just producing a functional system for CPD for CPAs in education. This is when the developed processes and strategies are reviewed and aligned with the stakeholders' vision-mission of CPD. The processes are framed based on the identified, analyzed, and created values in the processes. The design developed in this study leveraged the processes that can work together to create added value for the stakeholders of CPD.

OBJECTIVES OF THE STUDY

This paper aimed to develop systemic processes leveraging information technology that can connect processes among the CPD Council, CPD Providers, and PRC BOA. Specifically, this research paper is developed to propose a process design for CPD online using asynchronous mode for CPAs in the teaching profession and offer a asynchronous CPD process design that can serve as a basis for integrated processes among PRC BOA, CPD Council, and CPD providers for the CPAs in education in the Philippines.

METHODS

This empirical study utilized mixed methods. It surveyed 232 CPAs in education from 72 universities and colleges. The questionnaire was tried-out and validated by 15 accounting teachers who gave comments and suggestions to improve the instrument. The questionnaire was floated during the national conference of accounting teachers in the Philippines. Permission was sought from

the conference organizer to distribute the questionnaire to the participants, and consent was generated from the respondents before the questionnaire was filled out. The data gathered were quantitatively analyzed as to the respondents' profile, preferred features for the CPD online, whether they would consider taking their CPD in asynchronous methodology, their CPD needs, and their vision-mission as accounting educators.

Qualitatively, an empirical case study was used to frame the processes for Asynchronous CPD. The researcher conducted face-to-face and online focus group discussions (FGD) with the CPD Providers and CPD Council on developing Online CPD guidelines. The discussion results were utilized as input in developing the process design in this study. Observation and interviews were done with CPD providers, accounting teachers, and CPD Council to generate substantial input on the needs and existing problems in delivering the asynchronous mode of CPD.

The CPD Council has to be able to monitor the delivery of quality CPD activities of the CPD providers and authorize the CPD units to be credited to the participants. The CPD providers design, develop, and deliver the online modules that must meet the quality standards set by the regulations and engage the participants to achieve their CPD goals and learning outcomes. The researcher presented the proposed process design at the nACPAE midyear conference. Further improvements were integrated based on the experts' and accounting teachers' comments and suggestions.

RESULTS AND DISCUSSION

The respondents of this paper are 232 CPAs who are teaching in 72 universities and colleges in the Philippines. Their responses were tabulated, analyzed, and considered in the design development process. The respondents' profiles, problems, and preferences contributed to the widening and deepening perspectives of the accounting educators in the Philippines that springboarded the ideate and value analysis of the process design.

Table 1

Profile of the Respondents

Variables	n=232	Percentage
Gender		
Female	134	58%
Male	98	42%
Age		
21 to 25	46	20%
26 to 30	54	23%
31 to 35	25	11%
36 to 40	22	9%
41 to 45	11	5%
46 to 50	12	5%
51 to 55	30	13%
56 to 60	18	8%
above 60	14	6%
Number of Years of Teaching		
below 3 yrs	58	25%
3 to 5 yrs	51	22%
6 to 10 yrs	35	15%
11 to 15 yrs	28	12%
16 to 20 yrs	17	7%
21 to 25 yrs	17	7%
26 yrs to 30 yrs	11	5%
above 30 yrs	15	6%
Highest Educational Attainment:		
Bachelor	84	36%
Master	127	55%
Doctoral	21	9%
Region		
NCR	38	16%
CAR	30	13%
1- Ilocos	11	5%
2- Cagayan Valley	10	4%
3-Central Luzon	16	7%
4-Calabarzon and Mimaropa	24	10%
5-Bicol	10	4%
6-Western Visayas	8	3%
7-Central Visayas	5	2%
8-Eastern Visayas	12	5%
9-Zamboanga Peninsula	16	7%
10-Northern Mindanao	6	3%
11-Davao Region	14	6%
12-Soccksargen	22	9%
13-Caraga	6	3%
BARMM	4	2%

There are more female teacher-respondents than males. There are 23% of respondents aged 26 to 30 years old. Fourteen or 6% of the respondents have reached 60 years old; the least number is in the age bracket of 41 to 45. Twenty-five percent, or 58, have less than three years of teaching experience. Fifty-five percent of the teacher-respondents are master holders, while 9% have doctorate degrees. The highest frequency of 38 respondents is from the National Capital Region.

Table 2

Extent of Financial Support the Respondents their Schools for their CPD units

Extent	f	%
Partial	195	84
No Support	21	9
Full	16	7

Of the 232 respondents, only 7% received full financial support for their CPD from their schools. Nine percent did not get financial support during the year for their CPD activities, while 84% received partial support. Most of the support they get was for the conference, seminar, or training registration fee. The respondents usually take care of the accommodation and food expenses. Most of those provided with partial support expressed that they were only sent to conferences or seminars once a year, which could not meet the required 120 CPD units for three years. They are left to shoulder the expenses for the remaining required CPD units. It is in this light that the asynchronous learning environment for CPD should be explored to lessen the cost for the accounting teachers.

Table 3

Extent of Preference on CPD Modes of Delivery

Modes	Weighted Mean	Qualitative Description
Blended Mode (combination of onsite and online modes)	4.50	Very Great Extent
Purely onsite or Traditional Mode (Face to Face)	3.67	Great Extent
Purely online mode	3.47	Great Extent

Of the three modes of delivery of CPD, the respondents preferred to a very

great extent, the blended mode of delivery. In accumulating the required 120 CPD units, they prefer to combine the face-to-face and online learning modes. The accounting teachers have realized the value of both modes. Online mode provides greater flexibility for CPD participants, while the traditional mode allows them to visit places while learning and meeting their new and old friends.

Table 4

Extent of Preference on CPD Online Learning Methods

Learning Methods	Weighted Mean	Qualitative Description
Asynchronous Learning (learning at your own pace)	3.71	Great Extent
Synchronous Learning(online conferencing at the real-time or same time with the resource person/s)	3.52	Great Extent

Both asynchronous and synchronous methods are preferred to a great extent by the accounting teacher-respondents. Asynchronous learning is preferred at a higher weighted mean because, by nature, it provides an opportunity for CPD participants to learn at their own pace.

Table 5

Benefits of CPD Asynchronous Method that are Valuable for the Respondents

Perceived Benefits	F	%
I can cut down my transportation and accommodation costs	221	95%
I can learn at my own learning pace	216	93%
I do not need to miss my classes which may affect the performance of my students	197	85%
I can repeat the learning activities such as video viewing and resource reading until I shall have fully learned	192	83%
Anytime and anywhere, I can learn	188	81%
I can be more independent in my learning	166	72%
I am less pressured and relax	85	37%
I can take the assessment and evaluation anytime	56	24%

One of the barriers to undertaking CPD is the high cost of CPD activities (Mendoza, 2013). The asynchronous methodology is valuable to 221 or 95% of the respondents as they can reduce their cost of transportation and accommodation while taking CPD. Ninety-three percent, or 216, considered it essential that they can learn at their own pace in asynchronous CPD. 197 or 85% of respondents value asynchronous CPD because they do not need to miss their

classes, especially if they are teaching board courses which may affect the board examination performance of the students later. Asynchronous learning allows CPD participants to learn at their own pace and does not require that they be online at the same time as the resource persons. This type of learning provides more flexibility for them as they can access and work on the CPD materials whenever possible. This learning feature is vital for teachers to choose the time they can focus on learning and allow them to do their CPD when there is a better internet connection.

Table 6

Preferred Features of the CPD online

Features	Frequency	Percentage
24/7 accessibility	227	98%
Monitoring of my CPD units can be done	225	97%
I can evaluate my strengths and weaknesses	218	94%
I can design my training roadmap	215	93%
I can monitor the achievements of my road map	215	93%
I like to watch videos of the lecturers	214	92%
I can access the CPD online using my mobile phone	212	91%
I like to learn considering my learning style	194	84%
I like to post questions for the topics I want to be clarified more	192	83%
Anywhere learning	189	81%
I want creative delivery of the topics	188	81%
There is discussion forum for CPAs to interact and learn from one another	187	81%
I like to have links of references that I can read	187	81%
I like to interact with the resource speakers online	175	75%
There is a chat room for online interaction among the participants	174	75%
I like to write my learning journal of what I have learned from the CPD activities	120	52%

Table 6 shows that two hundred twenty-seven or 98% of the respondents prefer that the CPD online can be accessible 24/7. This accessibility feature allows them to accomplish CPD at their convenient time. This affirmed the study of Leszczyński et al. (2017) that one of the essential features of an e-learning course should possess permanent access (24/7). It makes adult learners attracted to learning when accessibility is unlimited. The second highest preference of the feature of CPD online for the respondents is when they can monitor the CPD units they have completed. Respondents find it valuable that they are

constantly aware of their accomplishments. CPD online becomes valuable to the participants when they can evaluate their strengths and weaknesses, and develop and monitor their training roadmap. These confirmed the theory of adult learning on the importance of adult learners playing active participative roles in setting personal goals and monitoring achievements. Cercone(2008) expressed that making clear to the adult learner that the learning is connected to their goals and values and their ability to learn the material are vital aspects of adult learning. These preferences were analyzed during ideate and value analysis in framing the asynchronous CPD. It was identified that including an e-portfolio in the asynchronous learning environment can add value to the CPD processes.

Table 7

Goals/Vision-Mission/Outcome Considered in Taking CPD activities

Goals/Vision-Mission/Outcome	Weighted Mean	Qualitative Description
My Personal	4.94	Very Great Extent
My School	4.56	Very Great Extent
PICPA, and nACPAE	4.45	Very Great Extent

In choosing CPD activities, the participants want to align, to a very great extent, their CPD activities with their vision-mission, their school's vision mission, and the strategic goals or direction of PICPA and nACPAE. Personal vision-mission holds the highest weighted mean, which means that CPD activities should be designed while considering the personal goals and needs of the participants. CPD providers need to be aware of and contribute to the attainment of the personal vision-mission of the participants. Moreover, it is also essential for the providers to know that participants are influenced by the goals of their workplace, as aligning their CPD activities with these goals can contribute to their successful integration into the work environment. IFAC(2020) recognized the importance of considering the CPD within performance management processes.

Additionally, respondents are influenced by the regulatory and professional bodies they belong to, and they aim to align their CPD activities with the strategic direction set by these bodies, indicating that they have high confidence in these bodies' ability to set the right goals for the profession. CPD activities must be designed to help teachers achieve their goals and objectives while contributing to the overall success of the organizations where they belong. The key to designing a holistic CPD is integrating personal, workplace, and professional organization's vision-mission into the activities.

Table 8

Vision of the CPAs in Education

Vision	Weighted Mean	Qualitative Description
To become an effective classroom teacher adept in the 21s- century strategies in teaching	4.75	Very Great Extent
To adopt multiple intelligences strategies in my teaching	4.68	Very Great Extent
To become knowledgeable in international standards	4.61	Very Great Extent
To immerse myself in the industry for an intensive on-the-job training for work experience that can boost my confidence to teach	4.60	Very Great Extent
To become knowledgeable in using online or blended learning strategies	4.60	Very Great Extent
To adopt multi-disciplinary teaching approaches in my teaching	4.59	Very Great Extent
To become adept in managing cross cultural diversity	4.42	Very Great Extent
To become globally comparable with educators in the first world countries	4.37	Very Great Extent
To become a visiting professor in other ASEAN countries	4.03	Great Extent
To achieve awards in recognition for my teaching competencies	3.90	Great Extent

From the floated questionnaire, Table 8 reveals the vision of the respondents in terms of their continuing professional development. The highest weighted mean is associated with the desire to become effective teachers with expertise in 21st-century teaching strategies. Additionally, respondents aim to adopt multiple intelligence strategies and develop knowledge of international standards in teaching. Accounting teachers also aim to improve their competencies toward internationalization by becoming proficient in managing cross-cultural diversity and being comparable to faculty members in more advanced countries globally. These goals should be taken into consideration by CPD providers as they serve as motivation for respondents to complete their CPD units. In the empathy stage of the process design for CPD online, it is important to be aware of the aspiration and ideal desires of the CPD participants. This establishes a roadmap toward the respondents' vision.

Table 9

Mission of CPAs in Education

Mission	Weighted Mean	Qualitative Description
To produce graduates with high integrity	4.95	Very Great Extent
To produce graduates who can stand for truth and fight graft and corruption	4.92	Very Great Extent
To produce graduates who are creative thinkers	4.90	Very Great Extent
To produce a well-rounded and integrated person	4.89	Very Great Extent
To produce committed CPAs to uplift the economy and quality of life in the Philippines	4.88	Very Great Extent
To develop students to become globally competitive	4.87	Very Great Extent
To develop students to pass the CPA board examination	4.80	Very Great Extent
To teach the students to qualify to work in other countries	4.68	Very Great Extent
To instill in the mind of the students deep love for our country	4.67	Very Great Extent
To instill in the mind of the students care for the environment	4.65	Very Great Extent
To be bring more souls to heaven	4.41	Very Great Extent

The motivation behind CPA educators' pursuit of professional development stems from their mission, which reflects their dedication to their teaching profession. At the top of the list, with the highest weighted mean, is the mission of producing graduates with high integrity. This undertaking is considered a top priority by almost all respondents. Following this is the mission of producing graduates who are advocates for truth and are equipped to fight graft and corruption. Teachers recognize their role as shapers of the future workforce, and they are driven by a deep sense of mission to excel in their field, pursue excellence in their teaching ministry, and go the extra mile in their professional development. According to Knowles, Holton II, & Swanson (2020), only when the human resource developer defines the clients' mission as improving its quality as an environment for growth and development can learners affect the learning climate. The expressed missions of the teachers can be integrated into the futures thinking perspective of the asynchronous CPD and imbedded in the reflection or insight development in the CPD activities. Questions reflecting on how the learning activities can contribute to the CPD participant's professional mission can highlight the value of the specific CPD activity.

The Processes for Asynchronous Online CPD

This study aims to frame the processes for delivering asynchronous CPD to CPAs in education, which the BOA, CPD Council, and CPD providers can use. The paper presents a systematic way to manage asynchronous CPD processes,

resources, and information to ensure that activities are carried out efficiently and effectively for CPAs in education. The processes are generated from a well-reflected empirical study of the interaction with CPD providers, the CPD Council, and CPAs in education. It offers a guide anchored on systemic design theory, adult learning theory, and pieces of literature on framing design for value innovation.

Perspective	Systemic Perspective	Deepening Perspective	Futures Thinking Perspective	Strategic Perspective
Systemic Design Process	Inquiry and Opening Up	Empathy	Ideate and Anticipate	Value Creation and Alignment
Process	Opening up the problem and space and acknowledging the interrelatedness of problems -Exposing to external perspectives and different world views that provides opportunities for framing.	Deepening of the perspective of the stakeholders and understanding their aspirations and desires in the light of setting a system of processes	Creative framing of value-adding processes to develop ideal future scenarios.	Leveraging on processes that can work together or be integrated to ensure value-adding processes that are strategically aligned with the stakeholders' vision-mission and goals.
Framing	• There are reservations about the extent that the CPD on demand provides quality CPD and whether it can achieve learning outcomes comparable with the traditional face-to-face conferences or seminars provided by the CPD providers.	• Based on the survey conducted in this paper, the respondents envision themselves becoming effective classroom teachers adept in 21st-century strategies in teaching and developing competencies toward internationalization. • PICPA has a vision of a responsive and globally relevant professional organization committed to service excellence toward its members and stakeholders. • nACPAE(n.d.) envisions itself as a community of learned accounting teachers leading accountancy education in Southeast Asia • The above vision-mission of CPD stakeholders are the desires and	• Developing a web-based asynchronous CPD system that can consider the integrated vision and goals of the participants, university, and authorized professional organizations goals and identify corresponding competencies to create individual learning roadmaps. • The realized mission in their teaching ministry is the source of reflection towards CPD sustainability. • A CPD system to become holistic and comprehensive to support life-long learning can integrate	• There can be optimization of resources targeting the needs of the CPD participants and their respective institutions where they work. • The web-based system can embed an inventory of competencies for each participant and track the extent of their attainment when CPD activities are completed. The inventory reports can serve as constant CPD needs analysis reports for the accounting teachers and CPD providers. • The e-portfolio system is proposed to be developed as a mobile application software that the participants can download. This software allows

		aspirations for CPD. • Accounting teachers are adult learners who are capable of self-directed learning. • There is a great desire to comply with the CPD requirements, but they have limited funding to support CPD activities.	an e-portfolio system. • The analytics system embedded into the e-portfolio can identify patterns and relationships and allows the participant to assess his/her strengths and weaknesses based on the competencies map. • The analytics feature provides the opportunity to identify competency gaps in the CPD goals or targets of the participant.	the individual participant to set his/her CPD goals based on his or her career, personal, school, and professional organizations' vision-mission and map out the required competencies to achieve these as CPD goals. • A training roadmap is generated and becomes a tool for developing strategic pathways toward the development of the competencies of the accounting teacher.
Framing	• Conflict of CPD schedule with teaching schedule that can affect the quality of teaching.	• During school days, teachers miss their classes to attend CPD activities which may affect the students' learning activities.	• Asynchronous CPD allows the Accounting Teachers to complete CPD when they are available so learning can be more flexible and possible.	• LMS is utilized to allow the self-paced learning to happen.
Framing	• Intermittent internet connection for synchronous learning	• Most of the Accounting teachers who are in remote places have problems with internet connections and are just using mobile internet, which can be costly.	• Mobile applications can be downloaded in which Training Package can run even without an internet connection for continuity of learning.	• Utilize LMS that can be used even without internet connectivity.
Framing	Accounting teachers are interested in being given information on the available CPD activities they can choose from, while CPD providers want	The participant can activate a link of his/her e-portfolio system to the CPD Provider's system. This feature will trigger an alarm if the CPD providers	The access of the CPD providers to the data related to the participants' CPD needs will be limited to the shared data they permit. CPD provider	The activated link with the CPD Providers allows them to develop the training package based on the needs and demands of the teachers and invite

	to inform more potential participants for their CPD activities.	offer training, workshop, seminar, or other CPD activity related to the participant's needs.	implements and protects data privacy.	the concerned participants to the CPD activities.
Framing	• How is the assessment of learning done?	One of the most challenging tasks is assessing the learning of the accounting teachers in the CPD.	•. The assessment is self-assessment which allows the participant to perform the activities several times until they get them right. This mode of assessment ensures that outcomes are achieved and supportive of the learner.	• The feedback on the self-assessment is an essential component of the training package allowing the participants to monitor their achievement in the learning process.
Framing	How can we develop better learning among adult learners in CPD?	Professionals learn through reflection, interaction with colleagues, applying concepts to the work environment, simulation, and differing combinations.	A variety of learning activities, such as insights development and forum discussion, can be integrated into the CPD Package.	Differentiated learning can be done as the participants can choose from among the various activities where they can learn the concepts and develop the skills in the package.
Framing	Difficulty to manipulate online tools	Not all accounting teachers are technology-adept for the asynchronous CPD	A participant's profile and pre-self-assessment are done before the start of the training. An Orientation Module must be available and completed by the registered participant before beginning with the TP. The Orientation Module includes a dry run of the TP to ensure the participant is ready to use the TP.	Well-trained facilitators or mentors must be available to guide and interact with the participants. A forum for inquiry of the participants related to the learning activities must be available to support the needs for information of the participants. A chatbot or online support is provided for frequently asked questions.
Framing	How to sustain the enthusiasm of Participants?	Participants can be generally enthusiastic at the start but the interest may decline as they move forward in the activities.	The feedback on competencies developed in each learning activity must be provided to the participants. This can be done by providing online badges and other forms of recognition to complement the participants, encourage their engagement, and sustain their enthusiasm.	The CPA participants are provided with learning plan templates. In this way, they can be more involved and committed to their training and development.

Framing	How to encourage the CPD participants to value e-portfolio?	Teachers are especially concerned on evidences they can use for portfolio management and career promotion.	Develop e-Portfolio system that supports evident-based learning	The output developed by the participant is generated in the e-Portfolio System as this can be downloaded and used as an evidence-based portfolio for the career development of the participant. The package produces a certificate of completion after all the learning outcomes are accomplished.
Framing	• Monitoring of the CPD Council on the delivery of CPD activities is challenging. • Monitoring of the accomplishments of the accounting teachers who are CPD participants on their accomplishments is a difficulty.	CPD Monitors are not full-time Monitors who may have the luxury of time to monitor the CPD activities.	CPD Council's Monitors can access the CPD activities 24/7 to observe and verify the quality of learning processes and environment for quality assurance Participants are required to evaluate the TP and its delivery.	To validate the issuance of the CPD units corresponding to the completed CPD, the CPD Monitors can visit the participant's electronic logs and accomplishments produced in the learning activities.
Framing	How to ensure continual improvement in the Training Package(TP)?	CPD Council must be given assurance that process improvement is undertaken with the TP.	If the Training Package(TP) will be used for another year, it is required that the results of the participants' evaluation should be utilized to improve the TP and its delivery	The process improvement documentation is submitted to the CPD Council before it will be approved for the re-run of the TP.
Framing	CPD Participants have difficulty in the submission of certificates or evidences that they have earned CPD Units.	Accounting Teachers spend much time and money in securing and reproducing certificates for renewal of license.	The e-Portfolio system can be linked to the Continuing Professional Development Accreditation System (CPDAS) of the Professional Regulations Commission(PRC) to automatically generate and update the CPD units earned by the participants.	Seamless updating of CPD Units in the CPDAS will increase the reliability and improve the satisfactory rating of the CPD provider

Framing	• Cost of CPD is high that discourages accounting teachers to pursue their CPD. • CPD Providers-Deliver CPD at lower cost and higher income	Most accounting teachers finance their own CPD activities as there are only limited opportunities for financial support from their respective institutions	Asynchronous CPD can provide financial sustainability both for the CPD providers and Accounting Teachers. Asynchronous CPD has less variable cost as there will be no more expenses for food and transportation. Fixed cost can also be distributed to more participants.	Training Package(TP)can be offered by the CPD providers at lower price. This is possible since the training package is accessible 24/7. Filipino CPAs, in other countries with different time zones, can register in the CPD. The TP can also be utilized several times in separate batches, allowing more significant Return on Investment
Framing	How to have check and balance on the quality of CPD activities?	CPD Council is concerned on quality assurance but has limited manpower to monitor.	CPD Council accredit CPD providers based on the organization's capabilities to deliver asynchronous CPD online. TP developed must be submitted for quality assurance in the CPD Council.	TP can be verified in terms of the effectiveness of the learning engagement of the participants through their online logs, completion of activities, and outcomes met

The proposed CPD asynchronous processes include the following components in the processes: Participant's CPD Vision-Mission, e-Portfolio Development, Training Package (TP) Design and Development, Quality Assessment of Training Package, Delivery of the Training Package, and Monitoring of Quality Assurance and CPD Verification and Validation.
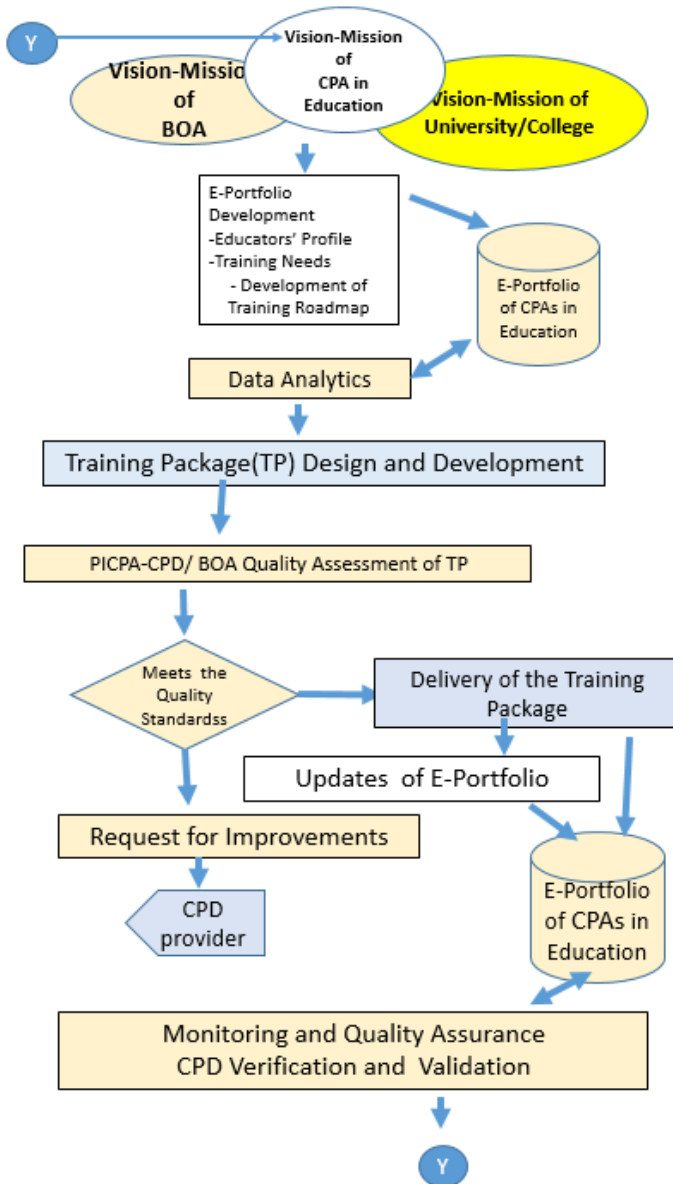
Figure 2. Process Flow for Asynchronous CPD for CPAs in Education

The components in the process flow in Figure 2 are described below. The interplay of the processes and strategies in every component of the proposed processes are framed based on the analyses of the data and information generated from questionnaire floated, interviews, direct observation, focus group discussion with the CPD stakeholders, and concepts and theories from related studies and literature. The researcher reflected on this information to develop widening, deepening, futures thinking, and strategic perspectives; and their corresponding processes that can optimize asynchronous CPD for accounting teachers in the Philippines.

Stakeholder's CPD Vision-Mission

The CPD System can be developed to allow accounting teachers to set strategic direction in their CPD journey. Their goals are based on their personal vision-mission integrated with the vision-mission of the University where they teach and the strategic direction set by PICPA and nACPAE. These must interplay and map out as targets. Based on the survey conducted in this paper, the respondents envision themselves becoming effective classroom teachers adept in 21st-century strategies in teaching and developing competencies towards internationalization. The PICPA(n.d) has a vision of a responsive and globally relevant professional organization committed to service excellence toward its members and stakeholders. In contrast, nACPAE(n.d.) envisions itself as a community of learned accounting teachers leading accountancy education in Southeast Asia. Both professional organizations direct their members towards excellence in accounting, internationalization, and ethically grounded CPAs in education. CPD providers for CPAs in education can align their CPD goals to deliver services focused on developing 21st-century teaching strategies, excellence in technical skills, and anchoring CPAs in education ethically. However, it is also vital to provide the CPD participants with the opportunity to further reflect on their priorities and goals that may be distinct from the rest.

The prospect of integrating the above vision-mission and goals can provide deepening, widening, futures thinking, and strategic perspectives to the CPD providers for the CPD participants, which can be set up as the strategic directions for the CPD activities they will design and organize. The activities that can contribute to these directions make the CPD valuable to the participants. Developing a web-based asynchronous CPD system that can provide opportunities for the participants to key in this vision-mission and goals and identify corresponding competencies to meet this learning roadmap are value-adding processes for CPD

participants and CPD providers. The web-based system can embed an inventory of competencies for each participant and track the extent of their attainment when CPD activities are completed. The inventory reports can serve as constant CPD need analysis reports for the accounting teachers and CPD providers.

E-Portfolio Development

A CPD system to become holistic and comprehensive to support life-long learning can integrate an e-portfolio system. Khan & Begum (2012) state that professional portfolios reflect educators' experiences, training, and achievements. Further, they expressed that a professional portfolio is a thoughtful, organized, and continuous collection of various authentic products that document a professional's progress, goals, efforts, attitudes, pedagogical practices, achievements, talents, interests, and development over time. The tedious documentation process of the professional portfolio can be effectively computerized to develop an e-Portfolio with learning analytics(van der Schaaf, 2017; Oliver & Whelan, 2011). The respondents' preferred features in Table 6 can be realized in an e-portfolio system which is part of the CPD system. IFAC(2020) supports the documentation of the learning journey of each member relevant to CPD. The e-portfolio system is proposed to be developed as a mobile application software that the participants can download. This software allows the individual participant to set his/her CPD goals based on his or her career, personal, school, and professional organizations' vision-mission and map out the required competencies to achieve these as CPD goals. The analytics system embedded into the e-portfolio can identify patterns and relationships and allows the participant to assess his/her strengths and weaknesses based on the competencies map.

The analytics feature provides the opportunity to identify competency gaps in the CPD goals or targets of the participant. A training roadmap is generated and becomes a tool for developing strategic pathways toward the development of the competencies of the accounting teacher. The participant can activate a link of his/her e-portfolio system to the CPD Provider's system. This feature will trigger an alarm if the CPD providers offer training, workshop, seminar, or other CPD activity related to the participant's needs. Having activated the link with the CPD Provider will allow the CPD provider to gather potential CPD participants for the CPD training, develop the training package based on the needs and demands, and invite the concerned participants for the CPD activities.

The development of an e-Portfolio system is proposed in this paper which can be initiated by the Board of Accountancy and CPD Council in collaboration

with the CPD providers. The access of the CPD providers to the data related to the participants will be limited to the shared data they permit. This manner is done to ensure that data privacy is not violated. The e-Portfolio system can be linked to the Continuing Professional Development Accreditation System (CPDAS) of the Professional Regulations Commission(PRC) to generate and update the CPD units earned by the participants. The CPDAS is an existing web-based system of the PRC that allows online applications for CPD Programs of accredited CPD Providers and credits CPD units to the CPD participants for the approved and implemented programs.

Training Package Design and Development

Asynchronous learning is best when a training package is designed and developed through a Learning Management System(LMS) with an e-Portfolio integrated into it. The asynchronous learning environment supports the nature of adult learners as it allows self-paced learning and differentiated learning. As suggested by Gould, Papadopoulos, and Kelly (2014), those responsible for creating e-learning resources should consider the needs of their target audiences and the context in which the learning will be applied. When LMS upload resource materials, such as videos, case materials, reading resources, graphics or caricatures, research, and other types of resources, it allows learners to choose which can provide the needed information to develop their competencies based on their respective learning styles. Besides this, it will enable the participants to view and learn the resources several times, depending on their pacing. The considerable advantage of asynchronous learning is its various possibilities to adopt multiple learning strategies that best fit the learner.

Wright(2009) proposed a shift in discourse in CPD rather than focusing on delivering and evaluating professional learning. Understanding and supporting authentic professional learning must be emphasized. CPD providers must reflect on enhancing support for professionals as they learn. Professionals learn through reflection, interaction with colleagues, applying concepts to the work environment, simulation, and differing combinations. The training designer and the participant must jointly set learning outcomes, allowing interaction between the two parties. In some cases, participation of the educational institution from where the participant works can be encouraged in developing the learning plan. This setup allows the optimization of resources targeting the needs of the CPD participants and the institutions where they work. The CPD providers can consider these as value integration strategies.

Integrating e-Portfolio in the CPD online processes allows reflective thinking and the development of insights from the learning materials and activities provided. Reflections on how the learning can be utilized and how new knowledge can be generated to be applied in the life of the participants deepen their engagement and result in authentic learning. Case analysis, discussion forums, scenario-based analyses, simulation activities, and the development of reflective journals are to be included in the training package. These allow the learner to choose from the activities they want to perform to learn. These learning activities can be integrated into the learning design (Battung, 2016) at the same time and used as self-assessment strategies. The processes undertaken by the participants in completing the activities are captured in the LMS, thereby documenting the transformation of learning. The feedback on the self-assessment is an essential component of the training package allowing the participants to monitor their achievement in the learning process. The package can enable the participant to perform the activities several times until they get them right. This mode of assessment ensures that outcomes are achieved and supportive of the learner.

Quality Assessment of the Training Package

CPD providers must invest quality in developing the Training Package(TP). The training design and development for asynchronous online learning are far more tedious than synchronous learning type of CPD online. However, a well-thought and designed training package can be used by more participants. Participants can enter the course at their own convenient time and complete it at their own pace. The return on investment(ROI) of the TP can be substantial as this CPD mode is customer focused and can attract more potential markets. It can meet the pressing needs of the CPAs to access CPD on demand. Most of the expenses in developing the training materials are fixed costs. So after reaching the break-even number of participants, it will provide substantial profit for the CPD providers. This is very possible since the training package is accessible 24/7. Filipino CPAs, even in other countries with different time zones, can register in the CPD TP. The TP can also be utilized several times in separate batches, allowing more significant ROI.

It is proposed that the CPD Council accredit CPD providers based on the organization's capabilities to deliver asynchronous CPD online. The CPD providers must have an existing Learning Management System(LMS), hardware facilities such as quality internet connection, servers, and storage devices, trained module writers, facilitators, multimedia designers, and ICT support staff. Each

TP developed must be submitted for quality assurance in the CPD Council. If it is utilized for another year, the utilized TP can be verified in terms of the effectiveness of the learning engagement of the participants through their online logs, completion of activities, and outcomes met.

Delivery of the Training Package

The approved Training Package(TP) for CPD must be delivered through the LMS so learning activities can be organized. A participant's profile and pre-self-assessment are done before the start of the training. An Orientation Module must be available and completed by the registered participant before beginning with the TP. The Orientation Module includes a dry run of the TP to ensure the participant is ready to use the TP. The CPA participants are provided with learning plan templates. In this way, they can be more involved and committed to their training and development. To make the learning process interactive, well-trained facilitators or mentors must be available to guide and interact with the participants in the discussion forum. Erol, Upton, & Upton (2016) expressed that the mentor's role is identified as a critical factor in completion and is achieved through setting attainable targets, monitoring progress, and providing motivation. A forum for inquiry of the participants related to the learning activities must be available to support the needs for information of the participants. A chat bot or online support is provided for frequently asked questions.

The feedback on competencies developed in each learning activity must be provided to the participants. This can be done by providing online badges and other forms of recognition to complement the participants, encourage their engagement, and sustain their enthusiasm. The output developed by the participant is generated in the e-Portfolio System as this can be downloaded and used as an evidence-based portfolio for the career development of the participant. The TP produces a certificate of completion after all the learning outcomes are accomplished.

Monitoring of Quality Assurance and CPD Verification and Validation

The CPD Council's Monitors can access the TP 24/7 to observe and verify the quality of learning processes and environment for quality assurance. Participants are required to evaluate the TP and its delivery. This evaluation must be embedded in the TP, accomplished by the participants upon completion of the TP, and accessible to the CPD Council. To validate the issuance of the CPD units corresponding to the completed TP, the CPD Monitors can visit the participant's

electronic logs and accomplishments produced in the learning activities. If the TP will be used for another year, it is required that the results of the participants' evaluation should be utilized to improve the TP and its delivery. The process improvement is submitted to the CPD Council before it will be approved for the re-run of the TP.

CONCLUSIONS

With the increasing demands to comply with the mandatory CPD units among CPAs in education for lifelong learning that will affect the quality of accountancy education in the Philippines, the processes in the asynchronous CPD developed through systematic process design generates value for the CPD stakeholders. The preferred features in the asynchronous mode of CPD of the accounting teacher-respondents can be integrated into the following components of the processes proposed in the study such as stakeholders' CPD vision-mission, e-portfolio development, training package (TP) design and development, quality assessment of training package, delivery of the training package, and monitoring of quality assurance and CPD verification and validation. The integration of the systems of the BOA, CPD Council, and CPD Providers can bring value-adding processes. The process flow, process design, and processes framed in this paper can be considered for implementation by the Board of Accountancy, CPD Council, and CPD providers.

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