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TRANSFORMING INSTRUCTORS' RESISTANCE TO CHANGE MINDSET USING ETI-BASED CONTENT SEQUENCE OF THE FIRST COURSES IN FINANCIAL ACCOUNTING REFORM INITIATIVE

by

Mujtahid Subagyo

Bachelor in Accounting
Gadjah Mada University, 2000

Master of Arts
Kyushu University, 2005

Submitted in Partial Fulfillment of the Requirements

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College of Education

University of South Carolina

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Accepted by:

Leigh D'Amico, Major Professor

Rhonda Jeffries, Committee Member

Terrance McAdoo, Committee Member

Xumei Fan, Committee Member

Tracey L. Weldon, Vice Provost and Dean of the Graduate School

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DEDICATION

To my wife Annisa and my children Kamila, Tania, and Gusti Subagyo

without whom none of this would be possible

ABSTRACT

As an accounting professor who has been teaching subjects in the domain of Financial Accounting (FA) for more than 10 years, I have observed the worrying phenomenon of reform stagnation in my accounting education program. There have been several reform efforts, mostly designed in a top-down mechanism, both in the aspect of curriculum and instruction aimed to improve the quality of education service in our institution in general. Unfortunately, most of them failed to be executed and some of them did not even make it to the planning stage mainly due to general resistance from the faculty. The current research is my scientific quest to, first, understand the critical relevant factors (CRFs) affecting my fellow instructors attitude toward the past educational reform initiatives in my institution, and second, use the information of the CRFs as a basis for interventions to transform the accounting instructors' general resistance into acceptance and advocacy to a proposed reform initiative.

To accomplish these two objectives, I used a Participatory Action Research method that consists of two cycles of study, i.e. investigation and intervention cycles, and involves the participation of five FA instructors as collaborators of the current study. The investigation procedure that I implemented in the Cycle 1 of the study reveals seven categorical factors that affect my collaborators attitude toward various proposed education reforms in the past. In the Cycle 2 of the study, I used the CRFs information as guidance for administering two types of interventions; first, the setting control intervention, which is aimed to construct a conducive environment for an education

reform, and second, the main intervention, which is introducing the proposed ETI-based content sequence of the first courses in Financial Accounting reform initiative to the collaborators.

Both quantitative and qualitative data observed throughout the current study indicate the effectiveness of both investigation and intervention procedures in transforming the collaborators' resistance to change mindset into acceptance and advocacy to the proposed initiative. By the end of the study, four collaborators reported the level of fully committed, and one collaborator reported one level below, to apply the revised ETI-based content sequence of the first courses in FA in their future classes. These self-reported high commitments represent a significant improvement compared to those reported in the beginning of the study. Some practical and strategic implications derived from the current study's causal description and explanation are discussed, especially to shed light on the transferability of the current research process and results to other similar research subjects, treatments, observations, and settings.

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LIST OF ABBREVIATIONS

AIS ..... Accounting Information System

CRF ..... Critical Relevant Factors

ETI ..... Elaboration Theory of Instruction

FA ..... Financial Accounting

IA-I ..... Introduction to Accounting I

IA-II ..... Introduction to Accounting II

PoP ..... Problem of Practice

RQ ..... Research Questions

CHAPTER 1

INTRODUCTION

My first direct exposure to the reform polemic in the domain of accounting education occurred just a few years ago. The Head of the Accounting Program in my working institution, which is a higher education institution in Indonesia, assigned me as one of the members of the Accreditation Preparation Committee. In the final stage of the accreditation process we had a final meeting with the assessment team from the Ministry of Education (the accreditation process for the higher education institutions in Indonesia is centrally and exclusively administered by the Central Government) to listen to their recommendations for reforms. Those recommendations consist of several aspects ranging from some physical facility improvements to curriculum reforms of accounting education to increase the quality of education service. A few days after the accreditation process ended, I and other committee members sat down with all our fellow accounting professors to discuss the assessment team's recommendations. When the discussion touched upon the subject of the curriculum reform recommendations, the faculty members in the room began to murmur. "Not another reform plan..." said one of the participants.

The other professor articulated his objection about the overwhelming numbers of curriculum reforms that our program had been implementing and planned to implement just to satisfy the recommendation from the central government. The problem with those

recommended reforms, another professor argued, is that they were more motivated by a political agenda set up by the politicians and less justified by scientific research findings. She argued that because of this disconnection from academic aspects, they may cause a counterproductive effect to the quality of education we provide.

She made her point by referring to our past efforts in reforming our curriculum based on the assessment team's recommendation to open the subprogram/specialization of the Accounting for Small and Medium Enterprises. This recommended reform reflects the-then Indonesian Government economic policy to focus on middle class-driven economic growth. In the following year, we also received a recommendation from the same team (but different personnel) to open the Accounting for Islamic Banking specialization program to reflect the increasing popularity of the Islamic Banking industry that year. All those reform plans ended up in failure and we decided to cancel the implementation completely. She closed her argument with a sarcastic tone, "Let me guess, next year they will ask us to offer a specialization of Accounting for E-commerce."

Another professor even argued more strongly that we should ignore any pragmatic calls for reform from the central government bureaucrats, because they don't have a clue about what is going on at "the grass root level". Instead, he argued that we should direct our resources to the calls for reform formulated by the international community of accounting scholars and professionals since they have more comprehensive understanding on the current issue of accounting, as a practice and a discipline. However, another professor quickly disputed this idea by pointing out that we

should not take the research findings for granted, since the assumptions used might not be applicable to our specific/local values.

At the end of the meeting, almost all faculty argued for the impracticality and resource insufficiency in accommodating the assessment team's recommendations for the accounting education reform plan. Another call for reform ended up in failure in our institution.

1.1 PROBLEM OF PRACTICE

In a broader context, the true story from my professional experience described above reflects the common problem that many educators encounter in their workplaces, i.e. overwhelming pressure from the policy makers to implement one-size-fits-all educational reform proposals/plans (Franklin, 2010; Huckaby & Huckaby, 2020; Weatherley & Lipsky, 1977; Zhou, 2019). Many researchers have dedicated their resources to investigate this very issue, especially by exploring the aspects of human behavior and motivation in a reform implementation (see for example Frykholm, 1999; Henson, 2015; Hyle et al., 1990). The emphasis on such aspects demonstrates the importance of the human factor in explaining why some reforms were more successful than the others.

Many carefully crafted studies avoid the deficit view of the educators, especially in the cases of failed reforms (Harvey, 2014; Jones, 2015). Instead of pointing fingers to the educators and making them the scapegoats for the failures, these studies shed light on some ***critical relevant factors*** that cause them to make a conscious decision to resist or reluctantly implement the proposed changes (Evans, 1996; Hargreaves et al., 2002). For example, some studies reveal the pattern that the top down approach to education

reforms, and/or the reform plans that have ambiguous objectives, just like depicted in the education reform cases in my institution above, trigger resistance or negative responses from the group members and eventually cause the reform plan and/or implementation to fail (Hargreaves et al., 2002; Seidman, 1983). These results show that the educators' inertia to change, should be considered as a symptom rather than a fixed/static, isolated factor. Blaming the educators, as the frontline of the reform efforts, for the failure in the education reform will not only prevent us from obtaining meaningful and constructive solutions, but also degrade their morale and therefore make it even more difficult to achieve the ultimate goal of the reforms (Harvey, 2014; Jones, 2015).

From a global perspective, the inertia to change in accounting academia is very well documented and considered as a serious threat to the quality of the accounting education (Agasisti et al., 2018; McGee & Preobragenskaya, 2005; Venieris & Cohen, 2004). This is because the accounting discipline as an applied social science cannot be separated from its dynamic environment, in which the rapid innovation of technology and business continuously impacts many aspects of the discipline (Accounting Education Change Commission 1990, 1992; Burns & Needles, 2014a; Sundem, 1992). Therefore, accounting as the means of producing the historical financial data and providing assistance of strategic business decisions, has always been the subject of calls for reforms and is expected to continuously undergo an adaptation process to stay relevant for the users (Burns & Needles, 2014a; Zhuang, 2020). Unfortunately, despite the frequent calls for reforms from its various stakeholders, the responses from the accounting academia have been particularly slow (Bernardi & Beanthat, 1999), and disconnected from both

education theoretical foundation and the practical aspect of the users demand (Bonk & Smith, 1998; Hardy, 2020; Pierre & Rebele, 2014).

From a local perspective, the similar problem of accounting education stagnation happens in my institution in which the current accounting curriculum and instruction does not significantly reflect the contextual needs of our local and regional users, nor facilitates a meaningful and empowering learning experience for the students (Fikri et al., 2017). As an accounting professor who has been teaching the subject of Financial Accounting (FA) in the advanced level for more than 10 years, I observe the worrying phenomenon of the stagnation in the accounting education of my Accounting Program. There have been several reform efforts in my institution, as described in the beginning section of this chapter above, both in the aspect of curriculum and instruction that are mostly designed in a top-down mechanism. However, all of them failed to be implemented, and some of them did not even make it to the planning stage. The consistent failure in planning and implementing accounting education reforms in our institution make many members of the administrator/reform committee frustrated and lay the blame on the accounting professors for not enthusiastically responding to the reform proposals.

The comprehensive approach used in studies that have been inclusive and recognize group members' behavior and motivation as dependent variables that are affected by external stimuli (Harvey, 2014; Jones, 2015), inspires me to apply such a strategy to solve the problem of the accounting education stagnation in my own institution. The current research, therefore, is my scientific quest to understand the general resistance to reform exhibited by my fellow accounting instructors in our

institution using a comprehensive strategy that acknowledges the aspect of human behavior in affecting the effectiveness of the reform plans.

This strategy will also help me avoid a simplistic observation which will lead a naive observer to conclude that such an inertia phenomenon is an independent factor that happens in a vacuum, and therefore a simple mechanism of reward and punishment is sufficient to deter such resistance (Bovey & Hede, 2001; Yılmaz & Kılıçoğlu, 2013). Such a superficial approach offers little explanatory power as to why an educational reform would fail, even in the planning stage (Harvey, 2014; Jones, 2015). Many scholars confirm that gaining the understanding of the critical relevant factors of the general resistance to a reform proposal is crucial for developing an effective reform strategy (Fernandez & Rainey, 2017; Kotter, 2012).

From the description of the gap between the ideal expected condition and the real condition in my specific institution above, I would like to formalize the Problems of Practice (PoP) below to guide me achieving the current research objectives:

1. There is a lack of information on the critical relevant factors of our accounting faculty rejections/resistance to various calls for education reforms in the past.
2. Corollary, there is a lack of guidance for effective mechanisms on how to introduce an accounting education reform that will ensure the full support and commitment from our faculty.

To solve these two PoP, I am going to lay out the conceptual framework of the current study as the blueprint for the implementation of the investigation and intervention research procedures in the current study. To that end, the following section will discuss the basic conceptual framework.

1.2 CONCEPTUAL FRAMEWORK

In developing the conceptual framework for the current research, I took advantage of the existing multiple theories about change/reform management in an organizational context developed by numerous renowned scholars in many fields of social sciences (Fernandez & Rainey, 2017; Kotter, 2012). Even though the current study is implemented in an educational institution setting, I did not limit myself to the theories from the domain of education because of the practical nature of the current PoP. As stated in the previous section, the focus of the current study is on the aspect of human behavior and motivation in the context of social interaction dynamics. Such a research focus transcends the classification/type of organizations, in which the members interact with each other to achieve their goals. Hence theories that descriptively and/or predictively increase my understanding and contribute to the solutions of the current PoP, irrespective of their discipline domain, were relevant for the current study to achieve its objectives.

The starting point of the current research endeavor, just like in any other scientific research, is the existence of the gap between the ideal condition and the real practice. As can be seen in the Figure 1, in the current study such a gap exists in two levels of context: the global and local context. In the global context, the expectation from accounting users, including the scholars, for the accounting education to continuously adjust itself to the latest practical innovation and theoretical progress is met with the reality of the sluggishness of accounting education reform (in Chapter 2 I will describe in more detail this gap of expectation in accounting discipline). Such an expectation gap in the global level spills over to the local context of the current study. As the demand for continuous adaptation to the current accounting environment becomes the social norm in accounting

discipline, the reality in my institution shows stagnation due to consistent rejections and indifferences of the past proposed accounting education reforms by the faculty in our Accounting Program.

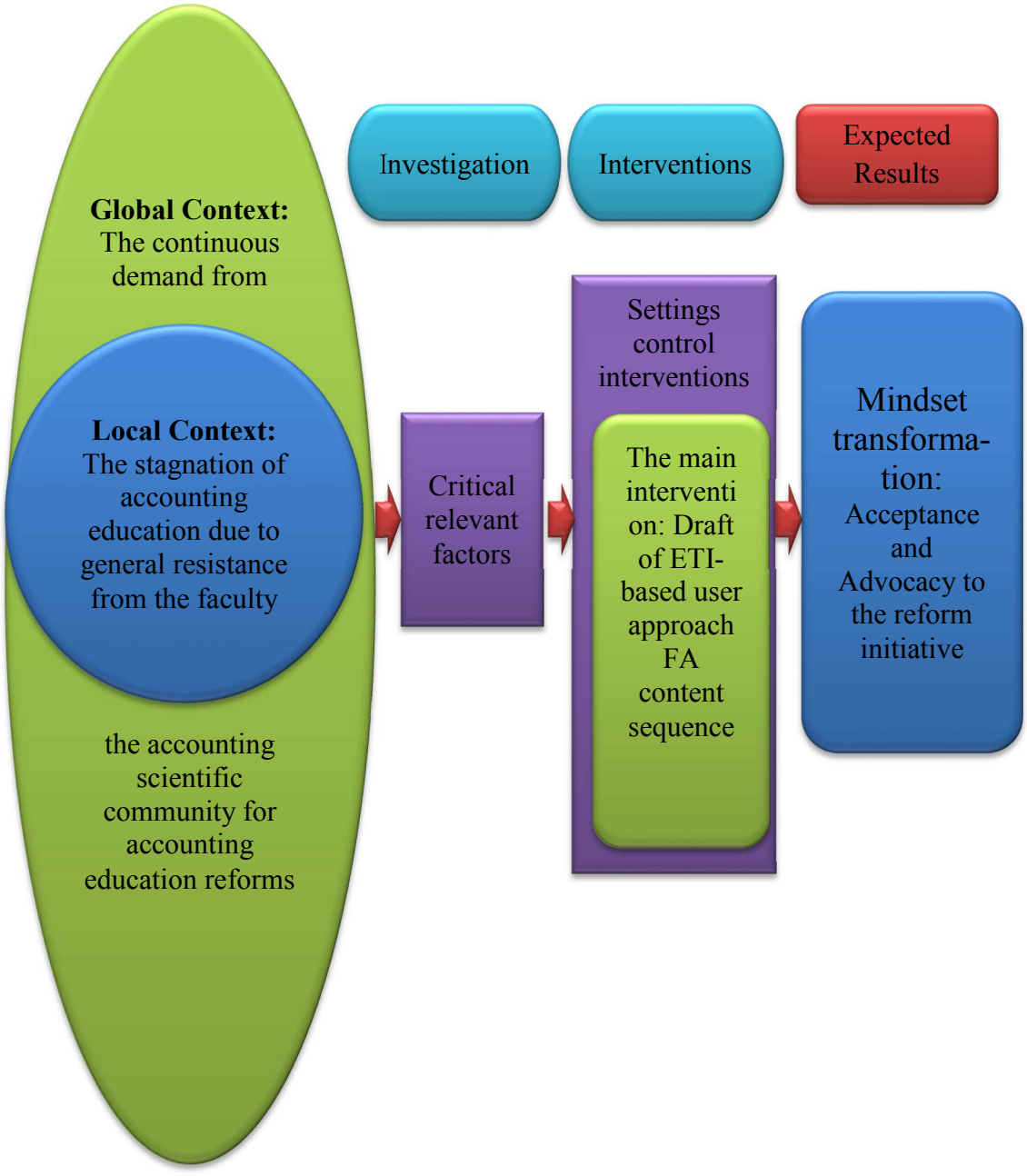

Figure 1.1 Conceptual Framework

In the current study, I focus on this local context expectation gap by making scientific inquiries to determine the critical relevant factors of general inertia to change among the faculty and use the information to provide an environment in which my fellow accounting professors are willing to adopt the transformation mindset, i.e. accepting and advocating the education reform proposal in the first course of Financial Accounting. In other words, the current study involves two sequential cycles of scientific procedure that I am going to implement: investigation procedure and intervention procedure.

The first cycle research procedure is to investigate the critical relevant factors that caused my colleagues to demonstrate general resistant behavior to various accounting education reform proposals in the past. This procedure indicates my preference of using a more comprehensive approach, instead of the deficit view of accounting instructors' approach, to find the solution of the current PoP. As mentioned above, the deficit view will only provide a misleading conclusion because it uses a very simplistic yet unrealistic assumption, i.e. the organization members' behaviors/responses to external stimuli happen in a vacuum.

Based on the previous literature on organizational change and my personal conversation with my fellow accounting professors, this simplistic assumption is not necessarily accurate. Especially when applied to the subjects of the current study, a group of accounting professors which have a relatively higher level of education. Therefore, it is reasonable to assume that their negative responses to any external stimuli, e.g. accounting education reform proposals, are based on some critical relevant factors. To sum up, my objective in cycle 1 of the current study is to find the critical relevant factors

that caused my fellow accounting instructors to respond negatively to any previous accounting education reform plans.

The information of critical relevant factors obtained through the investigation procedure in cycle 1 was calibrated against the existing theoretical studies in the change management literature to inform me in implementing a setting control intervention procedure in the cycle 2. This type of intervention is generally used in experimental and quasi-experimental studies to find an accurate measurement of an intervention of interest. However, the current study is not an experimental or quasi- experimental study, instead the current study uses the Participatory Action Research as the method of inquiry (see the Methodology section below). The motivation of using the setting control intervention is purely pragmatic as it is intended to ensure that the expected results can be achieved. In this case, the setting control intervention is intended to provide a conducive environment for the collaborators/subjects in the current study to rationally accept and advocate my proposed accounting education reform, which is the main intervention of the current study.

Therefore, there are two types of intervention procedures that I implemented in cycle 2: settings control intervention and the main intervention. The setting control intervention, as explained above, was implemented based on the information of critical relevant factors obtained from the cycle 1 procedure. The other type of intervention is the main intervention in the form of a draft of a user approach and Elaboration Theory of Instruction (ETI)-based content spiral sequencing of the first course in accounting that I introduced to my collaborators in this cycle of study. Please note the two adjectives that I use to attribute the draft, i.e. “user approach” and “ETI-based”. These two adjectives

represent the two rationales that I use in constructing the draft, i.e. the practical and andragogical rationales, respectively (see the discussion in more detail in Chapter 2). These two rationales are also part of the setting control intervention components since, together with other components, they altered the research environment in which the collaborators were informed about the justification and urgency for the accounting education change initiative in our institution. By active involvement in the research process, both cycle1 and cycle 2, I expect by the end of the study my collaborators will adopt the mindset of accepting and advocating the proposed accounting education reform.

There has been an established stream of literature that investigates the characteristics of reforms and identifies their pattern of correlation with the type and degree of responses from group members. Fernandez & Rainey (2017) summarizes the organizational reform literature in the domain of public organization and identifies eight factors for a successful reform: (1) Persuasively communicate the need for change, (2) Provide a Plan, (3) Build Internal Support for Change and Overcome Resistance, (4) Top-Management Support and Commitment, (5) Build External Support, (6) Provide Resources, (7) Institutionalize Change, (8) Pursue Comprehensive Change. In the domain of education, Cohen and Mehta (2017) identifies four factors for a successful reform: (1) Addressed problems that teachers thought they had, (2) by being consistent with prevailing norms and values, (3) mobilizing a significant public constituency, and (4) building the needed educational infrastructure. Cohen and Mehta (2017) also makes an interesting point by differentiating system wide reform from the niche reform based on their definition of a successful reform.

I analyzed the factors proposed by those scholars, and then selectively incorporated them into the analysis of the current study based on their relevance to the specific context of the current study. Chapter 3 fully discloses the contextual setting of this study as the relevance criteria for factors inclusion. Of Fernandez and Rainey (2017) eight factors, five are relevant to the current study's specific situation, and were used to guide me to implement the intervention in the second stage of this study. Those are factors (1), (2), (3), (6), and (8).

The two factors that are not relevant, i.e. point (5) and (7), are excluded from the current list of relevant factors. The reason that point (5) is not relevant to the current study's contextual situation is that in our higher education institution, professors have the authority to set up their own courses curriculum. So, the decision to implement a curriculum fully depends on the collective commitment from the lecturers in the same group of specialization, e.g. Financial Accounting, Management Accounting, Tax Accounting, etc. The point (7) is also not necessarily relevant since the term institutionalize is in direct opposition to the objective of the current study. First, the new curriculum produced in this study is not the "end product," rather a work in progress from the academics that are willing to be part of the change agents in our institution. Second, institutionalizing the end product needs more stages of rigorous and comprehensive testing. These stages are beyond the limit of the current study (see the section of Delimitation of the Study below).

In addition to these two seminal studies, there are numerous similar studies that identify factors affecting the successful implementation of an organizational reform. I discuss some of these studies in more detail in Chapter 2, by analyzing each factor

proposed in each study to filter in some relevant factors to the current study circumstances, and synthesizing the relevant factors into a model that was used in this study to guide me in determining the effective treatment mechanisms and procedures in stage two of this study.

Other categories of theory that were used in the current study are within the education domain, i.e. Learning Theories (LT) and Instructional Design Theories (IDT). These theories are especially relevant to address the second PoP mentioned above, i.e. to overcome the faculty general resistance to a change proposal. Together with the recommended mechanisms for implementing reforms obtained from the previous stage, the practical and theoretical foundation for designing the proposed draft of the new FA content sequencing were crucial to convince my fellow Faculty about the importance of the reform initiative. By showing them that the proposed initiative is well substantiated, especially by theoretical foundation from the domain of education, I expect to trigger their sense of urgency in planning the change.

The inclusion of a theoretical foundation from the domain of education complemented the more popular justification for reform among my fellow accounting professors, i.e. the practical rationales articulated by many accounting scholars regarding the lack of accounting academia adaptiveness to the changing demands from the accounting stakeholders (Bernardi & Beanthat, 1999; Bonk & Smith, 1998; Hardy, 2020; Pierre & Rebele, 2014). The inclusion of such theories is also especially important because most accounting professors in my institution are not familiar with the theories and studies in the domain of education. The highly specialization prevalent in the social sciences makes academics live in their bubble of specialization (Aldrich, 2014).

Such a phenomenon also takes place in my Accounting Program institution that the rationale of redesigning the accounting curriculum in the past has mainly been motivated by practical aspects, e.g. the changing demand from the industries. The efforts have been neglecting the theoretical aspect of education, especially ones that are related to providing a meaningful learning experience to the learners. In this case, the disciplinary bubble problem prohibits fluidity of information exchange among academics from different disciplines of social science, thus thwarting the potential benefits that we can reap from synergizing the different streams of knowledge (Aldrich, 2014; Dunning, 1989).

The failure to incorporate the theoretical foundation and research results from the education domain in designing an accounting curriculum, and solely focus on the practical aspect, means that the process omits the important aspects in the whole learning experience, such as the human (student) aspect of obtaining meaningful learning experience (Lukacs & Galluzzo, 2014). So introducing a new FA content sequencing based on sound education theories, especially those in the categories of Learning Theory (LT) and Instructional Design Theory (IDT), acknowledged the importance of providing the meaningful learning experience to the students by taking into account that they are not empty vessels that can be modified based on the market demands (Vallori, 2014).

The two main categories of theory in the field of education, i.e. the Learning Theory (LT) and Instructional Design Theory (IDT), were used as the theoretical foundation in designing the intervention of the current study. Reigeluth (1999b) delineates these two categories of theory by characterizing LT as more general and descriptive than IDT. It describes the aspects of the human learning process and

experience, e.g. how people change their behavior as a result of learning, how they process the information in their cognitive domain that affect their perspectives of the world, or how people perceive the reality and construct it as their knowledge (Reigeluth, 1999b; Reigeluth & Carr-Chellman, 2009; Reigeluth & Darwazeh, 1982). IDT, on the other hand, prescribes on the specific aspects of learning techniques that increase the probability of learning on the part of learners (Reigeluth, 2013). It addresses the issue of designing educational instruments and systems, such as curriculum, that facilitate the learning process to occur (Frick & Reigeluth, 1999; Reigeluth, 1999a).

In the area of LT, we can identify numerous theories that describe how people receive, process, and retain knowledge. Out of these numerous individual theories, many scholars, especially in the education domain, agree that there are at least three main schools of thought in this domain: behaviorism, cognitivism, and constructivism. This list of three LT categories is obviously not an exhaustive list to summarize the rich traditions of the scientific efforts conducted by scholars to describe how the learning process occurs.

Furthermore, the current criteria of demarcation is somewhat arbitrary, fluid, and not clear cut, as often happens in any domain of social science. For example the Schema Theory, which is the main focus of the current research, as the theory that is mostly developed in the psychology discipline, and later imported in education, has been categorized by Piagetian camp as Cognitive Constructivism theory (Derry, 1996). In this school of thought, the cognitive process, i.e. the information processing in the learners' brains, cannot be separated with the process of knowledge construction, both at the individual/psychological level and in social/public level. Derry (1996) provides a nice

summary of the nuance among research traditions from the cognitive extreme to the radical constructivism end.

I focused on the Schema theory as one of the theories in Cognitive Constructivism school of thought due to its relevance to the current study objectives. The use of this theory as the andragogical rationale for designing the well-rounded draft of the user approach FA content sequencing complemented the more popular practical justifications among accounting scholars (see Chapter 2), therefore it helped me to avoid treating learners as merely "empty vessels" that can be poured with whatever material the external parties/stakeholders, such teachers, prospective employers, or even parents, want. This is because the theory provides the guidance on facilitating the learners constructing their own knowledge based on their existing knowledge structure or experience (schema). In other words, using this theory as one of the current study's foundations, I reject the assumption that learning can only occur by injecting external stimuli to the passive learners.

I view learners, especially in the adult learning category, as active participants who build their knowledge in the learning process upon their existing schema. In this case, the teachers or instructors main function is to provide scaffolding to the active learners, therefore facilitating the meaningful learning experience to occur. More specifically, the scaffolding should help learners in constructing the accurate and robust schema, in which the new information/knowledge can be assimilated.

In order to achieve this objective, IDT is useful for instructors and curriculum designers in guiding them to design effective learning instruments that will increase the probability of the learning process to occur. To that end, in the present study I used the

framework developed by Dr. Reigeluth and his associates in the late 1970s which is called Elaboration Theory of Instruction (ETI). ETI, as one of instructional design theories, is specifically aimed to assist instructors in organizing and sequencing the course contents so that they can activate the learners' existing set of knowledge as the basic structure in the knowledge building process (Reigeluth et al., 1980; Reigeluth, 1979, 1999a).

From the learners' perspective, ETI provides avenues to achieve a meaningful learning experience (Reigeluth & Darwazeh, 1982). As Reigeluth et al. (1980) argues that using ETI (1) the student will have better long-term retention of knowledge; (2) the student will gain an additional kind of knowledge, one that is usually more valuable than segmented information; (3) the student will enjoy the learning more; and (4) the student will have higher motivation to learn. These positive effects claimed by the authors show the importance of scaffolding the learners in constructing the accurate and robust schema to facilitate a meaningful learning process.

1.3 RESEARCH QUESTIONS

After identifying the two sequential PoP and laying out the framework for the current study above, it is important to "operationalize" these problems into research questions (RQs). The formulation of RQs enables me, as the researcher, in developing a comprehensive plan of research activities that will lead to effective solutions for the defined PoPs (White, 2017).

The following are the two research questions, from which the current research process is constructed.

RQ#1: What are the critical relevant factors of the general resistance from the accounting faculty in our institution toward the accounting education reform plans/initiatives that have been proposed in the past?

RQ#2: Based on the RQ#1 answer and the existing relevant frameworks developed by scholars in this subject, what are the effective strategies to ensure the FA faculty's support and commitment in developing collaboratively the draft of FA content sequencing reform?

These two RQs have several properties that, as a whole, affect me in selecting the method of inquiry to achieve the current study's objectives. First, these RQs are purely practical, as they are related to and situated in the specific context of my own higher education institution. They are not directly or exclusively related to any theoretical and conceptual problems. Hence, the emphasis of the current study is not on testing a theory, or falsifying an applied hypothesis, and to generalize the results into a larger population, just like what we typically see in classical positivist research (Shadish et al., 2002). Instead, it focuses mainly on finding the effective solutions to the PoP and applying them directly to my specific and immediate context, from which the PoP originated.

Second, since these RQs are related to the practical problems, the application of the solutions reflects the prescriptive nature of the research process (Tsang, 1997). Corollary, the application of the research results to my specific context cannot be isolated from the whole value-laden inquiry process. Again, this is different from a typical classical positivist RQ property in which researchers pursue a descriptive approach to simultaneously optimize both internal and external validity (Shadish et al., 2002). As a consequence, in that type of research, an inconclusive finding (failure to reject null

hypothesis) is one of the logical consequences. In the current applied-prescriptive research, on the other hand, the results are always calibrated against the specific and contextualized objectives which are derived from socially constructed values.

The third property is related to the fact that these RQs are open-ended, which requires an exploratory type of investigation without committing in advance to any specific conjectures (Stebbins, 2001). As opposed to the confirmatory/explanatory research, in which the researchers have predetermined educated guesses to be tested through the research process, exploratory research does not try to analytically measure each variable in isolation from its context to find the direction and magnitude of the relationship (Reiter, 2013; Stebbins, 2001). Thus, instead of following an analytic/reductionist research tradition that emphasizes the simplistic and impractical assumption of "ceteris paribus" or "other things being equal," the current research used the holistic approach to research that recognizes the complex constellation of both variables of interest and background constructs or auxiliary hypotheses in the specific context of my institution (Doherty et al., 2010). In other words, this "messy" interaction among factors and variables involved in the current study were observed as a whole, and were not reduced into the sum of all parts.

Fourth, as mentioned previously, these two RQs are sequential. They embody two integrated accounting education reform problems in my higher education institution that I need to solve chronologically. The structure of these two sequential RQs is similar to that of conditional probability, which can usually be found in the classical positivist research tradition (Lynch, 2007). This concept describes two components that have a causal

relationship, i.e. conditioning and conditional events. In this structure, as the labels suggest, the conditional event is contingent upon previous events (conditioning event).

However, there are several important distinctions that make the current study unique. First, the current study does not intend to make an inference to a larger population and/or timeframe. Therefore, the term "probability" is practically irrelevant, at least in the extrapolative sense (Cook, 2014). Since this study does not measure a variable in isolation by controlling other variables, the concept of transferability is more accurate in depicting the current research endeavor so that the readers take the context as a whole into consideration (Merriam & Tisdell, 2015). Second, the current study will investigate both the conditioning and conditional events chronologically. Positivist-based studies typically involve only one specific problem of a conditional event(s), while the conditioning events have been (assumed to be) known (Kennedy, 2008; Verbeek, 2008; Wooldridge, 2015). As a consequence, the current study needs to make multiple cycles of investigation and/or intervention to solve these sequential RQs.

This distinctive nature of the current research PoP and RQs calls for a unique method of inquiry that is different from the mainstream classical positivist research tradition. The best method for accomplishing the current study objectives includes a focus on applied and immediate PoPs, incorporates value-laden research processes, accommodates flexibility in research design and process, and facilitates multiple cycles of research procedures. Among available research methods, I believe Action Research (AR) is the most suitable method of inquiry for accomplishing the current study's objectives. The following section will discuss in more details the justifications for this method selection.

1.4 METHODOLOGY

Based on the PoP and RQs defined above, I believe the Action Research (AR) method, especially Participatory Action Research (PAR) as its subset, is the most suitable approach for achieving the current research objective, i.e. to solve the defined PoP through active participation of the current study's collaborators in a democratic/bottom-up mechanism. There are several reasons, mostly derived from the properties of the RQs discussed in the previous section, to justify this method selection.

First, AR is the right method of inquiry for the current study because of its practical nature that is useful in solving the researchers' immediate problems (Burns, 2005; Carr & Kemmis, 2003; Efron & Ravid, 2019; Munn-Giddings & Winter, 2013). The AR practical nature is the perfect fit for the current study, considering its RQs that arise from the immediate problems in my own practical experience as a lecturer of FA courses for more than ten years. The current research endeavor signifies both my personal and professional goal to improve the education practice in my institution, specifically by convincing my fellow FA professors in my higher education institution to make transformative changes to the FA education as recommended by accounting scholars (Albrecht & Sack, 2001; Diller-Haas, 2004).

Second, AR is the appropriate method of inquiry for the current research since it has the capacity in dealing with prescriptive PoP/RQs (Reason, 2006). The mainstream positivist research method, on the other hand, is incompatible with the current PoPs since it is designed to solve descriptive problems using value-free methods (Shadish et al., 2002). Blaikie (1993) explains perfectly the value-laden nature of this method by pointing out that AR considers the reality as "socially constructed and not external and

independent" (p. 6). She further stresses that the meaningful construction occurs through interpretations of researchers' experiences and communication (Blaikie, 1993). In other words, the researchers' values, that are shaped by their experiences/interactions in their communities, play a substantial role in steering the direction of the study (see also Elliot & John, 1991).

The third reason for the AR method selection in this current study is that the method provides flexibility for researchers in implementing their research plan (Convery & Townsend, 2018). AR facilitates a less rigid structured, and more flexible, research process partly due to the open-ended/exploratory nature of the RQs that prevent the researchers to commit to a specific hypothesized intervention before they understand fully the underlying problem (Altrichter et al., 2002; Smith & Rebolledo, 2019). The current research, as elaborated in the previous sections, matches this AR character as it contains two sequential, open-ended RQs. The first open-ended RQ, which represents my effort to gain a comprehensive understanding of the current immediate problem, gave me infinite possible answers/solutions that it is impossible and impractical for me to plan ahead what type of research intervention that I need to implement in the subsequent cycle. Therefore, from the perspective of the current study, AR flexibility is very useful in achieving the current study objectives.

The fourth rationale for the AR method selection is its unique multi cyclical framework of research process (Herr & Anderson, 2014; Kock et al., 1995). Although there are many AR studies that use only one cycle study due to resources and technical constraints (see Prior, 2018), this unique multicycle feature of AR provides potential benefits to researchers in achieving their research objectives. This unique feature also

indicates that this method emphasizes on finding the solution of the open-ended RQs derived from immediate, applied problems, more than merely adhering to a rigid structured research procedure of testing a specific hypothesis just for the sake of it.

The multicycle framework of AR does not limit itself into single intervention/investigation instead it involves several sets of cycles that contain activities of planning, acting, observing, and reflecting, which fits with the structure demanded by the RQs of the current study (Kemmis et al., 2013). As implied in the fourth RQ's property above, the current research needs a multicycle of investigation and/or intervention activities to find the solutions of the two sequential RQs. More specifically, the multicycle research process was conducted chronologically, so that the result of the initial cycle's data analysis affected the implementation of the next cycle of research. The following section will describe in more detail the basic framework of the current multicycle research plan.

Last but not least, the ultimate justification for the AR method selection in this current study is the democratic bottom-up mechanism that we use in constructing the practical solution for the immediate problems in our institution (Efron & Ravid, 2019; MacDonald, 2012; McTaggart, 1994). This arrangement may not have a direct connection, at least explicitly, to any property of the current study's RQs. However, as the above PoP and RQs suggest, the current study involved the active participation of the FA professors as the collaborators of the study as the critical component for the successful education reform plan and implementation. It means that they are not the object of the study, from which the researcher observes and measures their behavior independently.

This current specific research arrangement obviously cannot be accommodated through a classical positivist research method in which the researcher(s) and the research participants are explicitly separated to obtain objective measurements. Therefore, an alternative method of inquiry which accommodates such a democratic bottom up approach to solve the practical and immediate problem, is needed. Considering such a configuration, the Participatory Action Research (PAR), as one of the subsets of AR, is the most suitable method of inquiry for the current study.

PAR provides a research arrangement that enables the researcher to use democratic, equality, and empowering mechanism to solve the practical problems collaboratively (Maguire, 1987; McTaggart, 1994). Based on this, the main researchers and the collaborators in PAR work collaborate in a loosely defined group in which everyone has equal power in deciding the direction of the research (MacDonald, 2012). PAR draws heavily on Freire's epistemology on the subjective consciousness that reality cannot be detached from the individuals lived experience (Baum et al., 2006). Maguire (1987), in comparing PAR with classical positivist tradition, maintained that PAR "offers a critique of, and challenge to, dominant positivist social science research as the only legitimate and valid source of knowledge" (p. 10).

Based on the rationalizations above, it can be concluded that AR, especially PAR as its subset that emphasizes the democratic participation of the research collaborators, is the most ideal type of research method to address the current PoP in improving understanding and practice regarding the lack of responses to the call for reforms in the domain of FA courses in my higher education institutions. More specifically, the multi-cyclical nature in the AR method enables me to design a set of intervention and

investigation that can be adjusted to the research settings/circumstances as necessary in a more flexible and less systematic way than the logical positivism's rigid procedures. The following section will overview the procedures that I am going to conduct in each cycle and phase in the current study.

1.4.1 INVESTIGATION AND INTERVENTION

The specific natures/properties of the current PoPs and RQs prescribe me utilizing AR as the method of inquiry. This method allows me to conduct two chronological research cycles of investigation and/or intervention to gain a comprehensive understanding of and solutions to the PoP in my institution.

Just like in any other AR research, each cycle of the current study can be broken down into four sub-cycles/phases, i.e. planning, acting, observing/measuring, and reflecting activities to facilitate me in implementing research procedures effectively, as well as for the readers in making evaluation on the transferability of this study process and results to other similar settings and subjects of research (Creswell & Miller, 2000; Kemmis et al., 2013).

The following is the rough plan for the current study's two cycles implementation. This plan is not necessarily detailed or fixed. AR was selected as the method of inquiry because of its advantage in providing the flexibility to the researchers in implementing research procedures.

In the first cycle, I conducted an investigation process to gain a comprehensive understanding on the general resistance from my fellow accounting faculty to previous calls for accounting education reforms recommended by the national education authority.

The emphasis of this cycle was to explore the underlying reasons, i.e. critical relevant factors, for the phenomenon of inertia to reform in my institution.

To achieve the objective of the first cycle of this study, in the Planning phase I started the inquiry process by making contact with five FA professors in my institution to solicit their initial commitment to participate in this study. I disclosed fully the research plan, objectives, and procedures to them as well as the general expectation of this study. The full disclosure of all aspects of the research is very crucial for ensuring a successful implementation of the study plan as they were an integral part of the research process. They are not the research objects whose responses I measured using the assumption of ceteris paribus. Instead, they are research collaborators whose commitment, ideas, and constructive criticisms are crucially needed to make the current research successful. Therefore, their willingness to participate in this study was based on fully disclosed information on the research objectives as well as ramification of the results.

In the acting phase, I conducted a series of semi-structured interviews with five faculty members that are currently teaching different levels of FA courses (Introductory, Intermediate, and Advanced level). The email method was used as the main means of communication in this study. Email is the most efficient and effective means of correspondence with the collaborators considering resource constraints (Fritz & Vandermause, 2018; Hawkins, 2018). The email correspondence did not degrade the quality of responses from the collaborators, in fact it gave me the effective audit trail that can be verified by both I, as the main researcher, and the collaborators. The time difference between I, who live in the USA, and my collaborators, who live in Indonesia, when the study was conducted, was also one of the advantages of using email as the main

method of obtaining the data for the current study. The Indonesian language as the first language of these five professors was used as the communication language. I translated the transcript of correspondence into English for subsequent analysis.

In the observing/measuring phase, I observed my collaborators responses to the interview questions and measured qualitatively their experiences on the previous curriculum reform plans and implementations in our institution. The observations and measurements activities in this phase enabled me to obtain a list of factors that affect the collaborators' perception on various proposed curriculum reforms in the past. I codified these factors, based on their direction and magnitude of the effect, so that they could be compared directly with the existing frameworks/models developed by the scholars in this particular area of organizational reform.

By comparing and fitting the empirical data with the existing models identified in the literature, I was able to obtain the recommended mechanisms/procedures from the existing models to my collaborators for introducing a FA education reform. In the reflecting phase, this list of recommended mechanisms were the subject of discussions, evaluations, and revisions between me and my collaborators. We focused on evaluating whether these results satisfy or deviate from our expectations and how these recommended mechanisms can be used effectively in the next cycle of study for the purpose of increasing the faculty members commitment to be part of the agent of change.

In the second cycle of the study I used the specific mechanisms/procedures as suggested by the first cycle investigation's findings to navigate the intervention of the study, i.e. proposing a draft of FA content sequencing reform to the collaborators. The practical rationale for conducting the intervention procedure in this cycle comes from the

accounting stakeholders' demand to make the FA content more "user-oriented", while the theoretical rationale is originated from the widely accepted theories in the domains of Cognitive Constructivism and Instructional Design, more specifically Schema Theory and Elaboration Theory of Instruction, respectively.

In the planning stage, I introduced to my collaborators the draft of the FA content sequencing reform that I constructed using both practical and theoretical rationales. In this phase I also solicited an additional commitment from the collaborators to participate in this study until the final stage. Obviously, as we enter phase two, i.e. the Acting phase, of the second cycle, which is the interjection of the recommended procedures for reform produced in the first cycle, I expected to have a more transformative type of commitment, instead of merely a transactional one (Bass & Riggio, 2006).

In the Acting phase, by using the recommended procedures for implementing effective reform produced in the first cycle, my collaborators and I had a more focused discussion in designing the new FA curriculum for our higher education institution that is based on both the guidance from the accounting scientists community and the andragogical aspect. The expected results from this phase is the new sequence and organization of FA contents from Introduction level to Advance level that follows the practical guidance from the accounting community and theoretical guidance discussed in ETI.

In the Observing/Measuring phase I qualitatively measured the level of my collaborators' enthusiasm in the process of designing the new user approach FA curriculum and their commitment to implement the new FA curriculum in their respective classrooms in the future. The focus of the measurement is on the final level of enthusiasm

and commitment.. However, I also measured the change magnitude of the parameter by calibrating the final measurements against the initial level of enthusiasm. I expected to have a significant difference in the enthusiasm level at the beginning and at the end of the study.

In addition to measuring the difference in enthusiasm and commitment level at two points of time, I also measured the difference of the new FA curriculum content and structure. Just like the enthusiasm measurement, as the main parameter measurement in the current study, I also expected to have a significant difference in the content and structure between the draft version and the "final" version of the new FA curriculum. However, as mentioned in the beginning of this chapter and will be mentioned again in the Delimitation of the Study section below, the current study's main focus is on eradicating the inertia to change behavior among my colleagues in our institution. The current study did not try to establish the ultimate ideal of FA curriculum that can be applied in all contexts of the educational process.

As a constructivist and fallibilist, I am in the position that there's no such thing as a final/ultimate ideal of educational structures, such as curriculum, even in the specific context of our Accounting Program institution. While an approximated/socially constructed ideal FA curriculum can be obtained in a limited dimension of space-time of a constantly changing accounting environment, the current study focused instead on the human aspect of the change process, i.e.. the faculty. By focusing on how to successfully stimulate a transformative reform mindset upon the accounting instructors in our institution, as the reform implementers, the current study provided a template for future myriad reform plans in the ever-changing accounting world.

1.5 SIGNIFICANCE OF THE STUDY

The current study embodies my concern with the stagnation in the accounting education progress in making adaptation to the latest practical and theoretical innovation. Since I joined my current higher education institution as an accounting professor more than10 years ago, our Accounting Program has never implemented a major curriculum and instruction reform to catch up with the development in both practical business world and theoretical education domain. The curriculum and instruction reform of the accounting education, especially in the domain of the FA courses, therefore, is crucially needed in our institution. From a global-normative viewpoint, such a continuous adjustment is needed since as an applied science, accounting discipline is constantly expected by its stakeholders to adapt to the fast changing environment, especially in the current era of technological and business innovation. From a local-practical perspective, the lack of accounting education reform in our institution is claimed in contributing to the skill gap among our alumni (Fikri et al., 2017) and the low comprehension of the basic accounting concepts among our students as some accounting professors anecdotally suggest.

One of the crucial contributions that I would like to make through the current study to our higher education institution is to give a sense of urgency to my fellow accounting professors in making changes to the accounting education learning process so that the quality of our education service will continuously improve. The general resistance/inertia that has been shown persistently by my fellow accounting instructors is especially worrying since the accounting environment has been changing quite rapidly due to the business and technological innovation. On the other hand, the plethora of

research findings and theories in the domain of education provides potential solutions that many accounting academics have not taken advantage of. However, as described in the beginning of this chapter, not all reform proposals are created the same. Many proposed reforms in the past, especially recommended by the education authority in our country, have been either rejected or reluctantly accepted by most of our faculty, which contributes to the failure of the reform implementation.

The current study, therefore, will analyze more deeply the underlying factors of the general resistance from the faculty to avoid the same failure in proposing a new education reform in the domain of FA that I will offer to my colleagues. By using the mechanisms of effective change management proposed by many scholars in this domain, as well as sound theoretical and practical foundations in designing the draft of the FA content sequencing, I expect to be able to convince the fellow accounting faculty to become change agents and advocates in our institution.

The human behavior and motivation aspect is often overlooked by the reform initiators in our past reform efforts. Instead, they focus solely on developing a sophisticated proposal for reform. The unsuccessful reforms in the past provide me a useful lesson that obtaining general acceptance and commitment from the reform implementers, while it is not a sufficient condition, it is a necessary one as the entry point for an effective reform implementation. Such an acceptance is especially relevant and crucial for a successful reform implementation in the higher education institution in Indonesia, in which the instructors have a high degree of autonomy in implementing curriculum and instruction in their classrooms.

By focusing on human behavior and motivation, I expect that the current study will provide a template for future effective reforms. Accounting as an applied social science cannot be separated from its environment, in which people, technology, and business innovation interact intensively to produce social change. Considering this constant expectation to change on accounting as a discipline, such a template would be very useful to ensure the reliable and successful future education reform implementations in our institution. The current study is my effort to construct such a template.

1.6 DELIMITATIONS OF STUDY

Acknowledging the limited resources in conducting the current study, there are several delimitations of the study that I consciously designed as a mechanism to cope with this issue. In this case, the delimitations of the study are useful for me in allocating efficiently the scarce available resources to focus on the current PoP. First, the main goal of this study is to overcome the social inertia or general resistance to any curriculum reform effort shown by my college in our higher education institution. Therefore, this current study is not intended as an effort to develop a proven effective Financial Accounting curriculum that can be accepted by the entire spectrum of the accounting education stakeholders. As a social constructivist I do not see such an enterprise would be fruitful, let alone possible. Instead, the current research focused on convincing the collaborators in this study to participate fully in the change initiative and become change agents in our higher education institution. In other words, “the end product” of this study is the fully committed accounting Faculty in collaboratively developing and implementing the new user-approach FA content sequencing in their future classrooms.

Second, while developing a more rigorous user-approach to FA content sequencing that can be justified by the desired learning outcome is appealing, achieving such an objective would require a significantly larger research scope, in terms of the research subjects and timeframe, for the completion of the study. Such a research procedure would involve the evaluation process of learners' performance to measure the research intervention effectiveness in a specified period of learning. This certainly would be an interesting project for future research endeavor. However with current available resources, the current research remained focused on the aforementioned PoP as the more urgent problem to be solved in our institution.

Indeed, the main motivation of the current study comes from the global concern of the accounting community regarding the lack of adaptiveness in accounting education, both in the curriculum and instruction aspects, to the current dynamic state of technological and business innovation. However, following the well-known management principle “think globally, act locally,” in this study I aimed the research investigation and intervention on the specific context and situation in my own institution. The danger of acting globally is that we are generally tempted to implement a one size fits all remedy, therefore neglecting the idiosyncrasies of the investigated problem/situation that are the critical aspects of it. As a consequence, by choosing to act locally I am delimiting the scope, the research results, and the interpretations that may arise thereafter, to the current context of my institution.

1.7 POSITIONALITY

Disclosing the researchers’ positionality to the audience is important as a mechanism to build research trustworthiness, or in a positivist tradition term: research

validity, in all types of research (Herr & Anderson, 2014). The positionality disclosure is especially relevant in ex-ante type of research, in which the current study is included. In this type of research, the researchers obtain the data directly from the participants (primer data) as the results of the intervention and/or investigation conducted in the study (Todd & Wolpin, 2008). As an integral part of the research instrument, hence having direct access to obtain the desired type of data, the researchers can potentially achieve a high level of construct validity (Ariño, 2003). On the other hand, this approach has the potential downside of the low level of trustworthiness due to the power and authority that the researchers have in collecting the "private" data (Dufon & Others, 2002). To overcome this problem, the researchers need to give signals to the readers related to all aspects of the data collection process to avoid the impression of the data manipulation that would confirm the researchers' opinions. As scientific researchers we want to avoid such confirmation bias, one of the cardinal sins in research, both "in appearance" and "in fact" at all cost.

Furthermore, disclosing positionality needs to be comprehensive, not only related to researchers' explicit position, but more importantly it should also include researchers' implicit positions. The partial disclosure will only jeopardize the study validity since the suspicious readers will not accept the research legitimacy due to the perceived non-transparent research process.

In the present study, my explicit positionality is as an insider who collaborates with my colleagues who teach Financial Accounting courses at a higher education institution in Indonesia. As an insider, I have the advantage of being able to connect easily with my peer accounting professors and solicit their participation in the study.

However, this position also potentially caused difficulties in convincing the readers that the data collected are free from bias due to close connection between researcher and the research participants. Therefore, detailed documentations was provided to mitigate this validity threat, such as the archives of written correspondence, the copies of returned questionnaires, and other documents relevant to the current research.

My implicit positionality as a researcher that tries to solve the current PoP by obtaining facts surrounding the investigated research subjects and settings is that I consider myself as a weak realist and local relativist. As a (weak) realist, I concede that there may be one true parameter out there in this world, but even if it exists, we may never be able to confirm it. We can only approximate/estimate the one true parameter through inductive efforts. As a (local) relativist, my best approximation of one true parameter is constructed according to the accumulated data/evidence. Since we may never have complete data, consequently we may never reach absolute certainty. In interpreting the accumulated data/evidence, I take a position as methodologically naturalist to admit the fact that we, as humans, can only observe and measure subjects that exist in the natural world. Our current limited capacity prohibits us from observing the objects outside the natural realm.

My epistemological position can be challenged by readers who have a strong realism worldview who will reject any incomplete and subjective data/observations, or even theories, as the foundation to explain the natural and social phenomena. On the other hand, as a methodological naturalist I am relatively confident that this is one of few things that most scientists can have an agreement on. In this position, as long as the set of assumptions and characteristics relevant to the data collection is fully disclosed, then we

will most likely agree on the objectivity of the data. However, it is highly unlikely to have a convergent view on the interpretation of the data and their patterns of relationship. In this case, the interpretation of the data analysis and the model that will explain the pattern of the data collected should be seen in the context of my implicit positionality as a realist and relativist.

CHAPTER 2

LITERATURE REVIEW

In this Chapter, I present the literature used in the current research as both the rationale and guidance for me to implement the investigation and intervention procedures. As Egbert & Sanden (2019) maintain, the prior research works are crucial as the foundation for future researchers in implementing the research procedures to achieve their research objectives, either to construct new theories, test the existing theories, or find solutions for the existing practical problems. In the case of the current study which can be categorized as applied research, I take advantage of the plethora of the previous studies collectively constructed by previous researchers in many different areas of the social sciences to support me in achieving the main objective, i.e. finding the solution of the current PoP. Following the structure of the research procedures laid out in the Chapter 1, and as represented in the figure 2.1 below, I categorize the literature review in this chapter into two groups. First, in connection to Cycle 1 of the current study, I will discuss the stream of literature of the reform/change management issues, especially with regard to the group members' behavior factors that affect the effectiveness of the reform implementation in the organizational context (see for example Kotter, 2012; Rainey, 2009). The literature review in this section informed me in providing a conducive environment for elevating the participants' enthusiasm to actively engage in the current study intervention. Second, in connection to Cycle 2, I reviewed the literature related to

the practical and theoretical/andragogical rationales for the accounting education reform, including the calls for shifting from the preparer approach to the user approach to learning in the first course of accounting (Albrecht and Sack, 2001; Burstein and McCarron, 2010; Chiang et al., 2014). This literature review was useful for me to gain understanding on how to design a draft of a user approach/ETI-based content spiral sequencing of the first course in accounting. The construction of the draft was informed by sound theories and practices from various disciplines in Social Sciences, and I used it as part of my persuasive arguments for the need to implement accounting education change in the discussion with the collaborators of the current study.

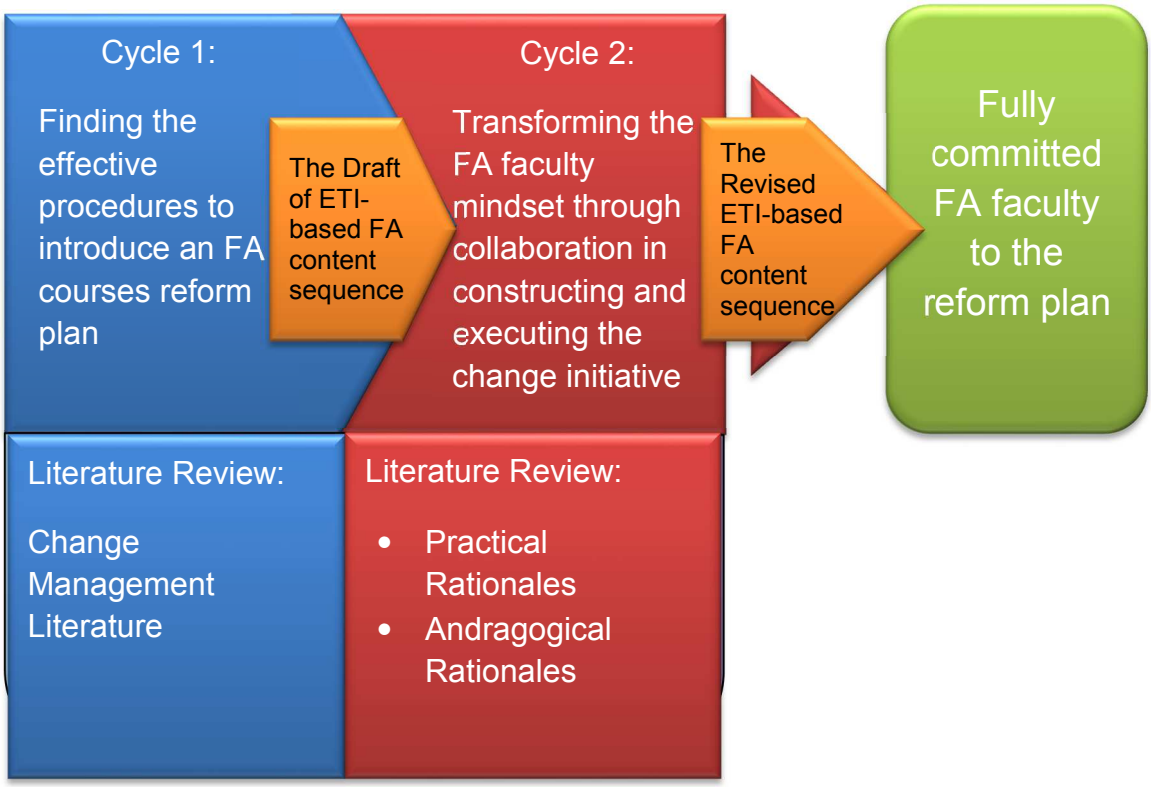

Figure 2.1 The Plan of the Study

It is important to reiterate here that the emphasis of the current research, as explained in the Delimitation of the Study section in Chapter 1, is not to establish an

absolute best, context-independent, and value-free content sequencing of the first course in accounting in all possible worlds. As a constructivist and relativist I do not see such an enterprise would be fruitful, let alone possible. Instead, the main goal of the current research is to make a transformative change in the collaborators' mindset in this study to participate whole-heartedly in the change initiative and become the members of change agents and advocates in our Accounting Program institution. In other words, "the end product" of this study is the highly motivated accounting faculty in developing collaboratively, and committing in future implementation of, the new Introductory to Accounting I/the first course in accounting content sequencing in our institution. Therefore, the discussion of the literature in the second category should be placed in the context of the mentioned objective of the current study.

The first section of this chapter will provide the general rationale on why we need to reform accounting education, both in the curriculum and andragogical aspects, which will be revisited in detail in the following sections. The second section will discuss the change management literature from different areas of Social Sciences. This section provides knowledge on the mechanisms, protocols, or procedures in implementing an effective reform plan, especially related to strategies in addressing human behavior aspects in the organizational contexts. The third section reveals the structure of the existing calls for reform in the accounting education domain. This section summarizes the different sources, emphases, and justifications for accounting reform articulated by numerous accounting scholars in the existing literature. Finally, the fourth section discusses the andragogical rationales for the current study. In this section, I will analyze in detail two theories in the category of Learning Theory and Instructional Design

Theory, i.e. Schema Theory and Elaboration Theory of Instruction, respectively. The use of these two theories as the andragogical justifications for the current study complement the practical rationales that have been the dominant focus of reform rationale articulated by many accounting scholars in the current literature. In utilizing both aspects of practical and andragogical rationales, therefore I expect to produce a more comprehensive, well-rounded first course in accounting reform draft to offer to my collaborators in the current study.

2.1 WHY DO WE NEED REFORM IN ACCOUNTING EDUCATION?

The accounting discipline, just like any other applied social science, has always been the subject of calls for reforms (Accounting Education Change Commission 1990, 1992; Burns & Needles, 2014; Sundem, 1992;). The frequent call for reforms is inevitable considering its nature as an applied science which is closely connected to the practical domain (Canziani, 2014). As institutionalist scholars would argue, an entity adaptation process to the change of its environment is very crucial for its survival (Scott, 2008). The current context of rapid-paced technological and business innovation requires accounting discipline to continuously undergo an adaptation process to stay relevant (Burns & Needles, 2014; Zhuang, 2020). Therefore, it is imperative for accounting education, as the domain that has the main function to prepare future accountants, to keep up to date to the constant change in its environment so that it can produce effective accounting education services (Burns & Needles, 2014; Fogarty, 2010).

Another equally important rationale for the accounting education reform comes from the educational process/learners perspective. There have been numerous studies regarding the andragogical aspect of accounting education that propose various

curriculum and instruction reforms to ensure better learning outcomes (Apostolou et al., 2020). However these methods are mostly single dimensional, intended to satisfy the users' demand and less attention is directed to improve the learners' wellbeing in the learning process. It is rather surprising that most accounting scholars do not take advantage of the abundant research results from the education domain, especially in facilitating the ideal learning process to improve the learning outcomes (Martimianakis et al., 2015; Veugelers, 2011). The current study is conducted with the assumption and acknowledgement that the learners are the active participants in the learning process, therefore it is an important task to design accounting education curriculum and instruction that support and fulfill the learners' meaningful learning experience (Nel, 2017; Widmayer, 2004).

Considering those factors mentioned above, it is natural to expect the accounting discipline to keep track of its environmental changes, both in the practical world of business environment and in the theoretical domain of education research progress. The flexibility to adjust to an ever-changing environment is crucial for the discipline to be able to fulfil its basic function in supplying graduates with relevant accounting skills to the job market demands and to provide an empowering learning experience to the learners. Unfortunately, despite the frequent calls for reforms from its various stakeholders, the responses from the accounting educators and academia have been particularly slow (Bernardi & Beanthat, 1999), and disconnected from both education theoretical foundation and the users' demands in the practical aspect (Hardy, 2020; Jay Bonk & Stevenson Smith, 1998; Pierre & Rebele, 2014).

Albrecht & Sack (2001) delivered the widely cited critiques on the way accounting education was implemented in the universities. The curriculum and andragogical aspects, i.e. the contents selection and sequencing respectively, used in many Accounting Programs are mostly out of date, especially because they over-emphasize on the bookkeeping or technical aspect. Many accounting scholars believe that the obsolete accounting curriculum and instruction/andragogical aspect makes it difficult for the Accounting Schools/Programs to attract the best and brightest students, on the supply side, and to fulfill the employers requirements, on the demand side (Huefner, 2002; Fogarty, 2010). Now, almost two decades after Albrecht & Sack (2001) seminal critiques and numerous similar studies that provide recommendations for changes in both aspects of curriculum and andragogy, it is rather surprising to see how little the effort and insignificant the impact of reforms in the field of accounting education (Clokie & Fourie, 2016; McCann & Wilson, 2020; Pincus et al., 2017; Pratama, 2017).

The current study tries to contribute to improving the quality of accounting education by responding to the call for reform from the accounting community using the specific context of my higher education institution. My institution has been facing the similar stagnation problem in accounting education reforms. Many reform plans have been proposed, mostly in a top-down mechanism, but none so far has been successful. Most of them even failed in the planning stage. To avoid a similar fate in my effort to introduce accounting education reform in my field of specialty, Financial Accounting, I need to learn from the previous failed reform efforts experience. Therefore, the following section will summarize the literature in the change management to equip me with the knowledge about the general pattern of the effective mechanisms and procedures for

reform implementation in an organizational context recommended by scholars from different academic disciplines.

2.2 THE CHANGE MANAGEMENT: A PLAN FOR AN EFFECTIVE FIRST COURSE IN ACCOUNTING REFORM

This section is particularly relevant as the theoretical basis for addressing the first PoP of the current study. Unlike the previous failed top down approach to education reforms implemented in my institution, in proposing the current reform plan I acknowledge the aspect of human behavior and motivation as the crucial factor and the entry point/necessary condition for a successful reform implementation. In this case, I am taking the side of humanism's worldview in the tradition of Maslow and Rogers, and using it as my philosophical basis and assumptions in designing the intervention in the current study (Blankholm, 2017; Frick et al., 1971; Orlov, 1992). I avoided the deficit view of educators, as the reform implementers, in evaluating the unsuccessful education reforms in our institution in the past. This kind of superficial approach offers little explanatory power as to why an educational reform would fail, even in the planning stage, since it prohibits us in finding out the underlying factors of the failed reforms (Harvey, 2014; Jones, 2015).

Using Maslowian and Rogersian humanism as the basis of my philosophical assumptions, I view my fellow accounting instructors as inherently rational human beings with intrinsic motivation to pursue their self-actualization in their workplace (Duff et al., 2016; Frick et al., 1971). Their action and intention reflect their inherent values about the world to which they continuously contribute to make it a better place for all of us. They are consciously aware that we all live in and share a limited space and time with others so

that every action one takes will have a consequence, directly or indirectly, to others' well being. Such humanism worldview is relatively reasonable to characterize the behavior and intention of my fellow accounting professors as the members of a scientific community that are not only bestowed with higher intelligence and capability to reason, but also higher levels of altruism in prioritizing their students' wellbeing to obtain a meaningful learning experience (Desautels, 2014).

These inherently positive qualities, such as intelligence, capabilities to reason, and altruism, are my realistic assumptions in characterizing my fellow accounting instructors that motivate me to conduct this current Participatory Action Research study. As Rogers maintains, the deviation from these inherent humanistic qualities can be explained by an individual's interaction with the external factors/stimuli that create obstacles for the individual to be in a state of congruence, i.e. the equilibrium between ideal-self with self image (Hall and Lindzey, 1959; Ismail and Tekke, 2015). Therefore, in addressing the current problem of inertia to change in my institution, this worldview is relevant as the foundation of my effort to find the underlying external factors that cause this deviation. To that end, I learned from the previous studies about the procedures or mechanisms to implement an effective reform plan to ensure constructive and enthusiastic responses from my collaborators to my proposed reform plan in this current study.

In this section I will summarize and analyze the research literature in the topic of change management to obtain the list of factors that affect effective proposed reform. In deciding whether the various guidance of reform mechanisms are implementable in the current research, I need to synchronize and recontextualize these recommended mechanisms to conform with the unique and specific context characteristics of the

research environment that I am using. Even though the detailed discussion of the current research setting will take place in Chapter 3, I will briefly explore some aspects that are relevant to the discussion in this Chapter simultaneously with, and as part of, the rationales for selecting the mechanisms for effective reform implementation as recommended by scholars in this domain.

There has been an established stream of literature that investigates the characteristics of effective reforms and identifies their pattern of correlation with the type and degree of responses from group members. Fernandez and Rainey (2006) identify eight factors for a successful reform; those are (1) persuasively communicate the need for change, (2) provide a plan, (3) build internal support for change and overcome resistance, (4) top-management support and commitment, (5) build external support, (6) provide resources, (7) institutionalize change, (8) pursue comprehensive change. In constructing these eight factors, the authors review vast literature on organizational change in the public sector domain. One of the distinctive characteristics of the organizations in this domain is that they are publicly funded through tax revenue, therefore it makes this type of organization susceptible to public scrutiny.

The current study, on the other hand, was conducted in the context of a public higher education institution in Indonesia. Even though my institution can be categorized as a public sector organization, which is highly subsidized with tax payers money, it is also a higher education organization, to which the national education authority gives a high level of autonomy in constructing its own curriculum and instruction policy. As a consequence of this autonomy, most reform efforts in our institution have been relatively

"protected" from external exposure, and predominantly represent the internal struggle among the different interests.

Due to the rationale above, in recontextualizing Fernandez and Rainey (2007) recommendations, I find that point (5) is not particularly relevant to the current study. Due to a high level of autonomy given to the higher education institutions in Indonesia in determining and designing their own curriculum and instruction by the national education authority, the decision to implement a curriculum fully depends on the collective commitment from the lecturers in the same group of specialization, e.g. Financial Accounting, Management Accounting, Tax Accounting, etc. Therefore, the point (5) recommendation does not conform with, and will not be used in the current study.

In the domain of education, Cohen and Mehta (2017) identify four factors for a successful education reform: (1) address problems that teachers thought they had, (2) be consistent with prevailing norms and values, (3) mobilize a significant public constituency, and (4) build the needed educational infrastructure. Incorporating the terms such as "public constituency" and "educational infrastructure," the proposed factors above clearly indicate that the authors emphasize on the macro/system-wide level of educational policy reform, which involves the (competing) interests of a relatively large group of people. Interestingly, they also note some reforms that fail at the system wide level might succeed in the niche level by mobilizing the specific group of constituents, for example the Advanced Placement and International Baccalaureate that are niche reforms that operate within U.S. public education, and Montessori that operate mostly outside of public education (Cohen and Mehta, 2017).

In the current study, I am not trying to design an implementation of a system-wide level accounting education reform. Instead, I emphasize the local context PoP of my higher education institution, which has a high degree of autonomy in determining its own curriculum. Even more specific, the current study only involved the professors in the domain of Financial Accounting courses. Therefore, the term "public constituency" that the authors mentioned in point three, will be recontextualized so that it refers to the collaborators/participants of the current study. Similarly, the term "educational infrastructure" which originally intended to refer to the supporting structure in the larger geopolitical context, in the current study will be recontextualized into a more targeted setting by constructing a conducive environment for the effective implementation of the main intervention procedure.

The widely cited study in change management literature, especially in the business/corporate world, is undoubtedly the model for leading change proposed by a management guru, John Kotter (Kotter, 2012). In his piece, Kotter prescribes eight steps to successfully transform an organization, those are (1) establishing a sense of urgency, (2) forming a powerful guiding coalition, (3) developing a vision and strategy, (4) communicating the change vision, (5) empowering employees for road-based action, (6) generating short-term wins, (7) consolidating gains and producing more change, and (8) anchoring new approaches in the culture.

After analyzing each model proposed by different authors, I will synthesize the relevant factors, i.e. the factors proposed by the scholars above that have been recontextualized to conform with the particularities of the current research settings, by grouping the similar factors from different models into one category of factor. As can be

seen from the table 2.1 below, I group all the factors from three models into five categories of relevant factors. For example, the first category of factors, i.e. the initial persuasion effort toward the participants to join the proposed reform project, contains two factors from Kotter's (2012) model, (1) establishing a sense of urgency, and (4) communicating the change vision, one factor of Fernandez and Rainey (2007) model, (1) persuasively communicate the need for change, and one factor of Cohen and Mehta (2017) model, (1) address problems that teachers thought they had. This category of factors is useful to indicate whether there is any initial persuasion from the reform initiator directed toward the future change implementers as the necessary condition for the change plan to be successful.

While the first category of factors represent the entry point of the reform project, the second category represents the first stage in operationalizing the project. As we can see in table 2.1, the factors included in this category indicate a more concrete/tangible action/strategy to achieve the reform goals. In this category, the terms "strategy", "short term wins", "gain", "plan" are utilized in the above models to make the reform plan effectiveness measurable (Fernandez and Rainey , 2006; Kotter, 2012).

The third category is arguably the most important category, especially in the context of the current study, since it reveals whether the reform mechanism is designed to obtain the internal support from the reform implementers. The internal support and coalition is obviously very important in determining the effectiveness of the reforms, as indicated by factors in these three models.

The fourth category is the group of the factors that indicate the support and resource availability from the change initiators. The factors in this category indicate the

importance of the support and resources from the change initiator to stimulate the group members to join the cause. Lastly, the fifth category indicates the impact of the change/reform project to the organization system, especially to the human aspect of the organization. If the organization wants to institute a change culture, then transformational, instead of transactional, change should be established (Bass and Avolio, 1993).

Table 2.1 The Synthesis of the Critical Relevant Factors

Kotter (2012)	**Cohen and Mehta (2017)**	**Fernandez and Rainey (2006)**	**Critical Relevant Factors Category**
(1) establishing a sense of urgency, (4) communicating the change vision.	(1) address problems that teachers thought they had.	(1) persuasively communicate the need for change.	Initial persuasion to join the change project
(3) developing a vision and strategy, (6) generating short-term wins, (7) consolidating gains and producing more change.	(2) being consistent with prevailing norms and values.	(2) provide a plan.	Developing Reform Project Planning

(2) forming a powerful guiding coalition,	(3) mobilizing a significant public constituency.	(3) build internal support for change and overcome resistance.	Providing Avenues for Involvement (Bottom-Up Mechanism)
(5) empowering employees for road-based Action.	(4) building the needed educational infrastructure	(4) top-management support and commitment, (6) provide resources.	Support/resources from top administrators / change initiator(s)
(8) anchoring new approaches in the culture.		(7) institutionalize change, (8) pursue comprehensive change.	Transformative change mindset

The process of grouping the factors from three models into five categories is useful to guide me in constructing a semi-structured interview questionnaire and initial coding as a means to organize the interview data. By having the organized groups of factors, I expect to have an accurate data analysis and interpretation in the current study.

2.3 THE STRUCTURE OF THE CALLS FOR REFORMS IN ACCOUNTING EDUCATION

There have been numerous calls for reforms, from scholars and practitioners alike, in the accounting education domain over the years (Amernic & Craig, 2004; Hardy,

2020). To help us understand this plethora of accounting education reform proposals, we can classify them into two main groups based on the aspects of the accounting education they addressed. First, there is a stream of literature that basically touches upon the instruction aspect of accounting education (see for example Clinton & Kohlmeyer, 2005; Jelinek, 2016; Tan, 2019; Wyness & Dalton, 2018). They investigate the effectiveness of different kinds of approaches to learning, i.e. methods, techniques, content sequencing, etc., and recommend the effective ones to accounting instructors to apply them in their classrooms. The second group of literature is the studies that investigate the curriculum aspect, i.e. the issue in selecting material contents of accounting courses that are considered important and relevant to ensure the desired learning outcomes (Al-Htaybat et al., 2018; De Lange et al., 1997; Frecka & Nichols, 2004; Miller et al., 2013). The studies in this category propose different emphasis of the accounting aspects depending on the perspective of the subjects of these studies.

In many accounting education research, the distinction between curriculum contents and instruction methods is oftentimes overlooked or at least not discussed explicitly, either consciously, due to its perceived insignificance relative to the main investigated issue, or unintentionally, probably due to lack of knowledge that the accounting scholars master with respect to the education theories and research in general. The lack of analysis and discussion on education theories and research in the domain of accounting research can be explained by the more popular movement of specialization that separates these two social science domains even further. This is what Aldrich (2014) called “disciplinary bubble” phenomenon, which refers to the fragmented specialization that is hindering us to obtain the big picture of the research problem and lose the

opportunity to take advantage of the contribution that other disciplines can provide in obtaining the solution.

The case in point is found in the studies that recommend the user-approach method in the accounting education reform, which we will revisit deeper in the later section in this Chapter (Commission & Others, 1990; Saudagaran, 1996). The original intention of this call is to modify the curriculum content in the first course in accounting to ensure that the first year students have the proper basic and overall understanding of the accounting concepts without having to go into the detailed mechanism of constructing Financial Statements. This approach, however, inevitably confronts the aspect of andragogy of the accounting courses since it requires contents' restructuring and sequencing based on the principle of adult learners' experience or previous knowledge (Knowles, 1970). Therefore, this kind of reform proposal, in which the current study is included, actually addresses both aspects simultaneously.

Some other studies in this area are more specifically focused on a single aspect. For example, streams of literature in Deep Approach to learning in accounting domain, critical and analytical thinking activation, problem solving capability through case studies, etc., exclusively address the andragogical aspect of the issue by exploring the different effective methods stimulate specific learning style (Cloete, 2018; Douglas & Gammie, 2019; Lucas, 2001; Turner & Baskerville, 2013). On the other side of the equation, some studies focus solely on curriculum content reforms without addressing andragogical aspects, such as the studies conducted by some scholars on the Indonesian curriculum reform with respect to the shifting of accounting Standards used by

Indonesian Accounting Profession Organization from US-GAAP based standards to IFRS-based standards in FA courses (Maradona & Chand, 2018; Saito et al., 2012).

The discussion of literature in the issue of accounting education reforms in this chapter will explicitly separate these two aspects. From the current study's perspective, such an explicit distinction is useful in addressing accurately the current PoP. Especially when analyzing the current study intervention in the implementation stage (see Chapter 3 and 4 for more details), this analytical discussion will help us differentiate the intervention motivated by curriculum aspect (content selection) from the andragogical aspect (content sequencing). The distinction also helps us better understand the theoretical and/or practical justifications for both aspects since they will be addressed simultaneously in this stage, i.e. designing the "how" by restructuring the "what".

The present study will discuss some theories related to the andragogical aspect for at least two reasons: substantive and pragmatic reasons. First, it provides justification for providing quality learning experience by acknowledging the learners' existential values (Hussein, 2008). It balances out the pragmatic aspect of accounting education which focuses on satisfying the demand from the job markets. The progress of accounting discipline as an applied social science is generally judged by its usefulness to the users, especially in the business environment as the main labor market for accounting graduates (Hussein, 2008; Jackson & Collings, 2018; Levant et al., 2016; L. M. Tan & Laswad, 2018). Business, as the main stakeholders of accounting education, is a primary influencer in which direction Business Schools/Accounting Programs take (Tan & Laswad, 2018). Therefore, curriculum in the Accounting Programs is generally designed to conform with the demand from the labor market. However, by solely focusing on the

demand side of the equation and ignoring other aspects of learning, such as the learners' needs of self actualization, we are in danger of treating and assuming them as "empty vessels" that passively wait to be filled with knowledge determined by instructors (Pereira and Sithole, 2019; Quattrone, 2000). They need to have the best learning experience they can get by having the opportunity to construct their own knowledge. In the current study, I argue that the emphasis on the constructivism does not necessarily mean it sacrifices the practical objectives, i.e. the effort to fulfill the demands of the prospective employers.

The inclusion of the andragogical aspect is important in my effort to convince the collaborators of the current study about the academic feasibility of the current project. As academics, the collaborators of this study understand the importance of the existing theories and previous research results as the foundation of science, the backbone of the progressive society. They understand the importance of education theories as the basis for effective learning processes. However, due to the existing disciplinary bubble in their academic environment, they have not been exposed to the education theories and research results that can help them design a good learning process and provide meaningful learning for their students (Aldrich, 2014). In this case, providing them with theoretical information from the domain of education and educational psychology as the basis for the current study intervention, I expect to convince them to join in the change movement and be change agents in our institutions.

The following section will first discuss a stream of literature on the contents/curriculum reforms issue in accounting education. Most of the studies in this category are prescriptive in nature, since they usually lay out cases as to what content

should be taught in accounting courses. In prescribing the content, these studies use different rationales based on their sources of interest/stakeholders. Generally there are three types of stakeholder that actively demand for the reform, those are: business entities, the accounting profession groups, and accounting academia/scholars. In addition to the prescriptive nature, these studies are generally practical research conducted by accounting academia, CPAs, or scholars who have a specific formal training in the accounting domain. Consequently, these studies generally put less emphasis on education theoretical/andragogical aspects.

The second category is the previous literature that address the andragogical aspect from which the accounting scholars can have potential benefit by applying the research results and theories in the accounting education domain. In this category, the leading scholarshipis generally produced in the domain of education and educational psychology. The discussion in this domain, which is less popular among accounting scholars, let alone practitioners, will complement the discussion of the more practical literature in the first category and will help me in constructing a well-rounded investigation and intervention to achieve the current study objectives.

2.4 CURRICULUM AND INSTRUCTION REFORMS IN ACCOUNTING EDUCATION

There have been many different rationales for curriculum and instruction reforms articulated by accounting scholars (Apostolou et al., 2020). These rationales represent different interests from different types of stakeholder, which can be grouped into three types of stakeholder that actively demand for the reform, those are: business entities, accounting profession groups, and accounting academia/scholars. Each of these

sources/stakeholders has their own concerns and emphases related to the material contents and the instruction methods of the current accounting education practice to ensure the desired outcomes. I will discuss in more detail in the following section each of these three groups of stakeholders' emphasis of the accounting content materials and their rationales for such demands.

2.4.1 BUSINESS ENVIRONMENT

The effectiveness of the accounting discipline as an applied social science has always been judged by how fit their graduates' skills conform with the specifications and qualifications set by the users, especially business entities as one of the biggest stakeholders of this discipline. This conformity is the ultimate benchmark and the standard norm for a good quality accounting education (Chiang et al., 2014). Therefore, many efforts have been conducted by Accounting Programs in order to close any skills gaps, such as making accounting curriculum changes, because any skill gaps found indicates that the accounting education is not keeping pace with the change in its environment (Bui & Porter, 2010; Kavanagh & Drennan, 2008). Furthermore, some scholars also find that business schools are too academic, and do not prepare students for the practicalities of the business world (Bennis & O'Toole, 2005). The importance of aligning the accounting curriculum to the business requirements is not limited to the direct or relatively short term benefits, such as producing Accountants with relevant skills to the current job market requirements. As some scholars suggest, some macro and long term positive impacts can also be obtained by harmonizing the accounting curriculum in the education domain with the needs from the Business world. For example, Marzo-Navarro et al.(2009) and Mandilas et al., (2014) find evidence of a strong association

between the reform of accounting education curriculum and the income level and economic growth; Ritter et al., (2018) also find that by reforming higher education curriculum based on the needs of the employers demands will have a positive impact on human skills.

The research investigations and recommendations from scholars in this category are usually generic in nature, except for a few studies, and they do not specify a particular industry as the focus of the research. In the exception category, the specific industries that are the subjects for the investigations are manufacturing, service, and retail industries. These studies focus on some recommended reform of the accounting curriculum contents to make sure that learning outcomes are in accordance with the requirement of the respective industry (Abbasi, Ali, and Bibi, 2018; Hein & Riegel, 2011). In this case, typically curriculum change recommendations are aimed at the advanced level of accounting courses.

In the more general industry category, the most recurring aspects that many scholars have been investigating are related to the curriculum reform that facilitates the acquisition of general skills, such as Information Technology, and the critical thinking and problem solving capabilities (Cloete, 2018; Wulandari & Ali, 2019). Information Technology, especially in the category of Accounting Information Systems (AIS), helps the automation of repetitive, procedural, and technical accounting tasks, enables a large volume of accounting documents processing in a relatively short period of time with high degree of accuracy (Umapathy, 1984). The AIS software packages have been increasingly popular and widely used even among Small and Medium Business and Non Business entities due to their advantages with relatively low acquisition cost (Brandas et

al., 2015). Nowadays, many developers provide different types of accounting software packages designed for generic industry, such as Netsuite, Quickbooks, MYOB, etc., and those for specific industries, such as Vista for Construction industry, SAP for Manufacture industry, etc., with the advanced features of technology, such as cloud computing, that enable companies to achieve economies of scale, therefore increasing efficiency and profitability (Beg, 2018; Brandas et al., 2015).

The pervasiveness of AIS, on one hand, relieves the burden of Accountants from the traditional and clerical bookkeeping tasks (Bowles et al., 2020). On the other hand, it causes the shifting of accountants' functions and roles in the society as they are demanded to step up in assuming higher responsibility in more strategic roles, such as analyzing and interpreting the financial information for decision making (Bui & Porter, 2010; Douglas & Gammie, 2019). From the accounting education perspective, the accountants function shifting in this digital technology revolution era means, among other things, that the accounting curricula need to be adjusted so that the contents can reflect the current requirements from the accounting stakeholders (Mandilas et al., 2014).

Another frequently investigated theme on the skills or core competencies that are mostly required by the general business organizations is the importance of soft skills acquisition on the part of the accounting graduates. The urge to shift from technical skills to generic/soft skills acquisition is a much-discussed topic among many accounting scholars who use this construct with different labels. For example, (Sikka et al., 1998) define it as active participation in social processes, other scholars use different and multiple labels, such as critical thinking, creativity, innovation, problem solving skills, or even communication skills (Chiang et al., 2014), critical thinking ability, problem-solving

and analytical skills, academic and professional skepticism, and verbal and oral communication skills (Chaffer & Webb, 2017), insight, imagination, creativity and ethical leadership (Parker, 2007), multi-disciplinary competency (Howieson, 2003), generic skills instead of technical skills (Kavanagh & Drennan, 2008).

Even though these scholars use different labels for practically the same construct of soft/non-technical skills, they all basically agree that the current accounting education curriculum has not been so effective in facilitating learners to master such competency (Gray & Collison, 2002). The curriculum reform in accounting education, therefore, is more urgent than ever if we are going to help the learners to obtain these highly needed competencies by prospective employers as well as to increase the quality of the learning process (Biggs, 1999; Hardy, 2020). Albrecht & Sack (2001) in their seminal study recommend using extensively instructional methods such as financial reporting analysis, case analysis, real company-assignments, technology assignments, and financial report analysis capability.

2.4.2 THE PROFESSION'S PRESSURES

The second source of calls for reform in accounting education is from its professional organizations. Generally the biggest, in terms of power and influence, an accounting organization in each individual country in the world is the entity that incorporates the country's Certified Public Accountants (CPAs) as one of the accounting professions. In the US, for example, the American Institute of Certified Public Accountant (AICPA), has the power to set the standards for audits for private companies and other accounting services (Allen & Woodland, 2006). This power, however, has been reduced significantly by the SEC for stricter rule enforcement. Through Sarbanes-Oxley

Act of 2002, the Public Company Accounting Oversight Board (PCAOB) took over the responsibility to set the auditing standards for publicly traded companies in the US (Allen & Woodland, 2006). This change was caused by accounting scandals in 2001 involving the big scale bankruptcy of Enron and Worldcom for their unethical conspiracy with the now defunct Arthur and Andersen, one of big four accounting firms in that time (Allen & Woodland, 2006; Linthicum et al., 2010). The ripple of such an accounting scandal has been felt around the world causing ethical issues in accounting to be one of the most prioritized issues for accounting curriculum reform (Georgy S. Thomas, 2004). Many scholars argue for the urgency of ethics/moral values topics to be injected more explicitly in accounting courses (Armstrong et al., 2003). The rationale of such a reform is to produce highly capable and ethical accounting graduates to earn the trust and respect from the society (Bean & Bernardi, 2005).

A stream of literature in accounting education also discusses the recommendation from the CPAs for some alternative curriculum designs in such courses as Auditing and Financial Accounting that will assist the learners to pass the CPA exams (Eames et al., 2018). The CPA exams are notoriously difficult and only select accounting students and graduates who have strong interest and intelligence to become public accountants can pass all four sections of the exams. However, many scholars believe that well designed accounting curriculum and instruction will help prepare accounting students to pass the exams. This issue is especially relevant since the CPAs organization around the world are reforming the exams format to better represent the actual problems that a CPA will face in their future jobs. The emphasis on the application on critical and analytical thinking is replacing the emphasis on memorization of accounting procedures and standards.

In Indonesia, the problem of low passing rate in the CPA exams is especially concerning since the number of CPA in this country has been stagnantly low compared to its neighboring countries (Suryani, 2018). Such a problem creates a butterfly effect in causing other and even bigger macroeconomic problems, such as impeding the competitiveness in providing the accounting and finance services to multinational corporations, therefore decreasing Direct Foreign Investment in this country (Abidin & Ervanto, 2015; Suryani, 2018). The problem of CPAs scarcity in Indonesia is compounding by the aging problem of the current active CPA members, i.e. around 60% of current CPAs are more than 65 years old (Kampai, n.d.). It means that the regeneration issue becomes more urgent than ever for this country's CPA association to address. Dealing with this problem, the CPA organization in this country tries to suggest reform in the education domain to increase the interest and passing rate in the CPA exam (I Gusti Agung Krisna Lestari, 2013).

Another important issue that has been brought up by CPA organizations and academics in many countries recently is the issue of convergence in accounting standards and procedures, and its implication to the curriculum change in the accounting courses (Maradona & Chand, 2018; Tawiah & Boolaky, 2020; Zhang & Ye, 2020). Facilitated by the advanced development of internet-based trading and financial transactions, the character of the current market has been becoming more globalized, and the economic capital becomes more mobile (Naz & Bögenhold, 2020). The characteristic of the global market obviously is different from that of the regional market in which the accountant dealt mostly in the past (Hamzaha et al., 2020). The current global market makes the accountant's job become more complicated, especially because they have to deal with

different regional markets simultaneously and each of these markets may have different accounting standards. Because of this phenomenon, there has been an effort to unify the accounting standards internationally (Daske et al., 2008). This effort was led by the International Accounting Standards Board (IASB) that has been producing the widely adopted accounting standards called International Financial Reporting Standards (IFRS) by many accounting authorities around the globe (Daske et al., 2008); (Maradona & Chand, 2018; Tawiah & Boolaky, 2020; Zhang & Ye, 2020)(Daske et al., 2008).

Today, the US is the only advanced country in the world that has not adopted the IFRS yet and keeps using its own US Generally Accepted Accounting Principles (US-GAAP) that is produced by the Financial Accounting Standards Board (FASB) (Khurana & Michas, 2011). Fortunately, there have been efforts and progress made toward harmonization between IFRS and GAAP to facilitate global trading activities more efficiently (Fosbre et al., 2009; Khurana & Michas, 2011).

The dynamic nature of accounting standards demands accountants to stay updated with any changes promulgated by the accounting authorities/professions. From the current study perspective, accounting education should equip students with critical and analytical skills, instead of memorization skills, to be more adaptable in addressing the frequent changes in the accounting standards. Curriculum and instructional methods that facilitate this objective, therefore, are urgently needed.

2.4.3 ACADEMIC OBJECTIVES

The calls for reforms in accounting education also come from the ‘insiders’, i.e. the professors in business schools, the accounting researchers, and even education scholars in general (Rankine & Stice, 1994; Warren & Young, 2012). The frequently

stated rationale for curriculum reforms by accounting educators is similar to the one stated by the business entities, i.e. to help students acquire higher order of thinking capabilities, such as critical and analytical thinking, and less emphasis on technical abilities to "crunch the numbers" (Albrecht & Sack, 2001; Huefner, 2002). There have been many suggestions from accounting scholars to solve such problem by redesigning accounting curriculum (see for example Fogarty & Lowensohn, 2017; Holtzblatt et al., 2015; Schaefer & Stevens, 2016; Soroosh & Krahel, 2017; Spiceland et al., 2015).

There are also numerous studies that discuss the calls for accounting education reform, especially related to accounting curriculum, to address the problem of declining rate of accounting enrollment (Billiot et al., 2004; Gabbin, 2019). Some scholars indicate that the main factor for this decline is the general misperception, especially among first year college students, that accounting discipline is synonymous with the bookkeeping/technical aspect of the Financial Reporting process, which heavily deals with numbers and requires a lot of computation (Boyce, 2004; Herbert et al., 2020; Howieson, 2003). This misperception is augmented by the usage of traditional curriculum, usually copying the structure of chapters in the textbooks used by the instructors (Herring, 2003; May et al., 1995; Robert & P., 2004; Wells, 2018).

The current common practices of material sequencing using the guidance from the accounting textbooks, unfortunately, are not suitable with the objective of scaffolding learners to acquire a comprehensive understanding of basic accounting concepts (Wells, 2018). Using the accounting textbooks' chapters organization in structuring the curriculum, the first course of accounting instructors will expect the novice learners at the end of the course to possess technical capability of the procedural aspects in constructing

the Financial Statements (Rodgers et al., 2017). This is because the textbooks are designed to discuss in detail a particular concept in one specific chapter, and other concepts in different chapters. This method leads to a fragmented approach of instruction, and eventually produces a low level of comprehensive understanding on accounting concepts on the part of the learners (Kavanagh & Drennan, 2008).

The learning objective of the first course in accounting is that the learners are expected to be able to construct Financial Statements, which is also inefficient considering not all students who take the first course of accounting are those majoring in accounting. These non accounting majors students are not trained to be future accountants, therefore they are not expected to be responsible for preparing the Financial Statements (Sundem, 1992). This kind of instructional practice perpetuates the stereotype of accounting as identical to bookkeeping and creates obstacles for the Accounting Programs to attract the best students and therefore decrease the enrollment rate in the Accounting Programs (Albrecht & Sack, 2000, 2001; Spiceland et al., 2015)

While bookkeeping is an integral part of the accounting cycle process, it is not the only, and certainly not the most important aspect of the whole process of constructing Financial Statements (Zhou & Lamberton, 2020). In fact, thanks to the advanced development of Information Technology, the bookkeeping aspect in accounting becomes less and less consequential, since this technical aspect can be handled more efficiently and effectively by numerous accounting software packages currently available in the market. Many scholars argue that the traditional approach has been outdated and needs to be revised to reflect the dynamic changes in the business environment ((Boyce et al., 2019; Douglas & Gammie, 2019; Herbert et al., 2020). The utilization of math and

calculation in accounting courses is also relatively minimal or less complicated compared to, say, Finance and Economics courses (Chen, 2017). The Accounting Education Change Commission (1990, 1992) recommended some reforms in the first course of accounting to eradicate this misperception. The fundamental recommendation was to change the approach used in the first course of accounting from a traditional preparer approach to a user approach.

The obvious difference between traditional preparer approach and user approach in the first course of accounting is that the latter emphasizes facilitating the learners to comprehend the overall and basic concept of an accounting cycle (Diller-Haas, 2004; Saudagaran, 1996; Sundem, 1992). The traditional preparer approach, on the other hand, stresses calculating and presenting accurately a specific type of transaction in the accounting reports (Albrecht & Sack, 2001). In other words, the preparer approach addresses the depth of the subject material, while the user approach focuses on the width. Using a traditional preparer approach in the first course of accounting, the instructors will expect students to master the mechanics of debits and credits (double entry) recording relatively quickly. However, mastering the mechanics aspect and the concepts aspect of this procedure are two different things.

As the double entry procedure is the backbone of the accounting cycle, it is very crucial for accounting students to master the concept comprehensively (Zhou & Lamberton, 2020). However, forcing the learner to use the double entry procedure too quickly without providing them the basic structure of knowledge to comprehend the concepts and rationales of such a procedure, will only result in the ineffective learning outcomes (Diller-Haas, 2004). This kind of approach is also inefficient because the

instructors have to impose on the learners a "learning by doing" method, i.e. the learners were instructed to practice as much as possible so that they will eventually be accustomed to such a specific procedure and will be able to handle other similar cases. The problem with this kind of method is that the procedural knowledge obtained by the learners is so specific that when they face a different type of accounting transaction that requires different types of procedure/standard, they will have difficulties.

Using user approach, on the other hand, the accounting professors will place emphasis on utilizing an accounting equation, i.e. Assets = Liabilities + Owners' Equity, as the basic structure that can be used in general application. This equation serves as a basic schema that will help students to comprehend how the double entry works, and be able to apply it to different types of economic transactions. This approach is especially suitable in the current business and accounting environment, which is characterized by fast development of the Accounting Information System, and frequent changes in accounting Standards and Procedures. By facilitating comprehension of such basic and generic accounting concepts, the learners will have the capacity to quickly adapt themselves in a fast changing environment.

Since the Accounting Education Change Commission (1990, 1992) made the recommendation of the user approach, many accounting scholars have been heavily discussing and analyzing it as a better approach than the traditional preparer one. Accounting scholars usually cite the practical rationales and justifications of this approach. Albrecht and Sack (2001), for example, argue that this method is suitable in increasing the enrollment rate in the Accounting Programs and combating misperception regarding accounting as a discipline that mainly deals with numbers and calculations.

Pincus (2008) also maintains that the user approach is suitable in the current business environment which requires accountants to shift their competencies to more strategic roles and be more adaptive to the dynamic nature of accounting standards. Despite these numerous practical justifications, however, there is a gap in the literature as to how such an approach can be justified from the theoretical/andragogical aspect of education.

The practical rationale for the user approach is obviously very important as the stakeholders, including the parents of the adult learners, have interest in seeing the adult learners succeed in their job market competition. The learners' employability, by default, is the main indicator of the good quality education they experienced (Bowles et al., 2020; Levant et al., 2016; Tan & Laswad, 2018). However, by limiting the current discussion to the practical justification and neglecting the learners' wellbeing to achieve their self-actualization in learning experience, we are in danger of treating them as "empty vessels" that passively wait to be filled with knowledge determined by instructors (Pereira & Sithole, 2019; Quattrone, 2000).

By bringing up such an issue, it is by no means that the practical objectives are in conflict and competing for limited resources with the andragogical justifications in the curriculum reform. In the best possible world, both rationales should be perfectly aligned to synergically help the learners achieve their objectives in their educational experience. From the current study's perspective, discussing the andragogical aspect also helps me in designing a well-rounded user approach-based FA curriculum as a draft that I will present to my collaborators.

2.5 ANDRAGOGICAL FRAMEWORK FOR DESIGNING THE FINANCIAL ACCOUNTING CURRICULUM

From the summary of literature above, we can see that most studies have focused more on the practical aspect when articulating the objectives and rationales for the accounting education reform (Dunn and Hooks, 2015; Jelinek, 2016; Tucker, 2017). Less attention has been dedicated to the andragogical or theoretical aspect of education in these analyses (see the literature review Apostolou et al., 2018, 2019, 2020). The current study sees both aspects as equally important in designing a well-rounded content sequencing of the first course in accounting draft aimed to increase the quality of the accounting education process, especially to provide a better and meaningful learning experience to the learners. To that end, the following sections will discuss the theories produced in the education and educational psychology domains that will be used as the andragogical rationales for the current study's intervention.

The first part of this section will discuss the Schema Theory as one of the most popular cognitive constructivism theories that has been around since the time of Plato and Aristotle. This descriptive theory informs us how the individual's existing mental structure (schema) in facilitating the learning process to occur in the cognitive domain. In the second part of the section, I will discuss the Elaboration Theory of Instruction (ETI) as the prescriptive theory and the extension of the schema theory above. As a prescriptive theory, ETI is more informational to the instructors because it provides guidance on how to increase the learning probability to occur in the classrooms.

The discussions of both theories in this chapter complement the discussion of the practical necessity for reforming accounting education in general and Financial

Accounting domain in specific. The inclusion of the andragogical aspect as one of the rationales for accounting education reform in our higher education institution indicates my emphasis on the wellbeing of our learners as active participants in the teaching and learning process.

2.5.1 SCHEMA THEORY

Schema Theory was popularized, especially in the domain of educational Psychology, by a British psychologist Sir Frederic Bartlett (Ost & Costall, 2002). He used the term Schema or a mental structure to refer to one's generic knowledge about the world. The concept of schema itself has been around for centuries and arguably one of the oldest theories in the cognitive constructivism domain as it has been proven useful for academics and researchers to describe and predict the role of a learner's prior knowledge/mental structure in retaining and comprehending new knowledge (Ost & Costall, 2002; Widmayer, 2004).

The very idea of schema theory can be traced back to Plato and Aristotle teachings, with their concepts of "form" and "essence," respectively (Marshall, 1995). However, it was the work of Immanuel Kant, the German's great philosopher in the 18th century, which became the foundation for the works of later cognitivists such as Piaget, Barlett, Bruner, and others (Johnson, 2013). Kant used the metaphor of a lens to describe a schema that both shapes and is shaped by one's empirical experience (Guyer, 1987).

Since Bartlett introduced the concept schema in the psychology domain, many scholars have begun to shift their attention to cognitive constructivism learning theory and moved away from behaviorism (Johnston, 2001). The early stream of research on schemata theory, mostly conducted in the literacy/reading comprehension domain,

implicitly assumes that the structure of the mind is fixed and static (Richard Chase Anderson et al., 1988; Lane et al., 1974). The researchers in conducting the study usually use an experimental design in measuring how the schema of each person interacts with the treatment and produces the unique/specific interpretation of an experience (Marshall, 1995).

Kantian scholars, such as Anderson and Pearson (1984) defined schema theory as "a model for representing how knowledge is stored in human memory" (p. 259). Consistent with Kant's idea of the schema construct, they explain the important role of schema in enabling the learning process by confirming that "the reader's schema is a structure that facilitates planful retrieval of text information from memory and permits reconstruction of elements that were not learned or have been forgotten" (p. 285).

Kant's construct of schema demonstrates the dynamic nature of a mental structure organizer that dictates on how we see and interpret the empirical world (Fisher, 2016; Guyer, 1987). Such a dynamic characteristic of schema is also an essential concept in steering the direction of the research in this area. Prior to this, as discussed above, the stream of research in this area in the 1970s shows the concept of the schema as a static concept, the one that is assumed to be fixed in understanding the literacy/reading comprehension in students (Johnson, 1987). In this school of thought, the schema is seen as the existing structure that has already been established in a person's mind to experience the world. The later research in this area began to see the concept in a more dynamic sense, i.e. as the structure of mind that is molded by social/transactional factors (Marshall, 1995). This research focused on how social interaction shaped a person's schema in experiencing the world.

Another noticeable shift in the research stream of schema theory is the use of sociocultural variable as an essential factor that affects the construction of schema. This shift can be observed in widely cited works, such as those conducted by Anderson & Pearson (1984) and Bartlett (1932). Anderson & Pearson (1984) in their experiments explore the crucial function of the sociocultural variable in constructing the schemas as cultural constructs in memory. This work substantiate Bartlett's concept on Schemata which cannot be divorced from the social environment. As he maintains, schemata are "not knowledge structures stored in the brains or minds of individuals for the interpretation of experience, but functional properties of adaptations between persons and their physical and social environments reciprocity between culture and memory" (Bartlett, 1932).

Bartlett's concept of schemata gives a significant contribution to the development of the theory since it introduces a new aspect that helps us see schema as a dynamic, ever-changing mental construct in one's mind, due to on-going interaction between the persons and their environment. It means that the schema theory can be applied in the instructional design domain, and help educators in designing a method of instruction that will effectively construct the students' schema and scaffold them in screening facts and producing scientific values.

The research conducted by Gaffney and Anderson(2000), however, found that the terms "schema" or "schema theory" have been rarely used since the end of the 1980s. Nowadays, researchers prefer to use terms such as existing knowledge, topic knowledge, prior knowledge, and previous knowledge (Gaffney and Anderson, 2000).

There have been many empirical studies conducted to verify the descriptive and predictive power of the Schema Theory. However, very few of them were conducted in the Business and Economics education domain, in general, and in the accounting education domain, in particular. This research scarcity in this specific area, on the one hand, provides an opportunity for scholars to explore the applicability of this theory on this domain. On the other hand, the huge gap between the development of the theory and the verification of the theory applicability in the domain creates challenges for the scholars, especially in finding the effective methodology to accurately measure the impact of the theory in this domain.

The following studies on schema theory are two of few studies in this domain that will illustrate those methodological and substantial challenges that the scholars in this domain are facing. These two studies will be discussed in detail so that we can learn from them to appreciate the contribution of schema to increase the Accounting and Economics students' academic performance.

The first study conducted by Cheng et al., (2009) employs the experimental design to test the relative effectiveness of a teaching method based on schema theory by comparing it with the conventional teaching method. The authors first describe the model used in the study that contains six necessary steps (p. 1761); those are: Economic Data Analysis Topic, Information Collection, Information Pre-processing, Schemata Modelling, Schemata Stimuli, and Schemata Evaluation, plus result feedbacks to the participants.

The participants of the study are undergraduate students in Economics who enrolled for the Economic Data Analysis course in a higher institution in Taiwan. The

decision to use the advanced subject matter is to ensure that the participants have a relatively comparable level of prior knowledge in Economics. The prior knowledge level is an important control variable in the study to ensure the accurate measurement of the schema effect in each study's participant.

In the Information Collection stage, there are three information sources: internal (prior knowledge), external (socio-cultural interaction), and results feedback that comes from schemata evaluation. After collecting information, the next stage is Information preprocessing, which includes information cleaning, misconception identification, and information integration. In this stage, the individual schema will screen the information. The unique part of this model is that the teachers also help the individual student schema in identifying misconceptions so that the information screening will produce positive results. This stage can be metaphorically described as cleaning the lens so that the owner of the lens can see/experience the world more accurately.

The next stage is what the author called Schemata Modelling, i.e., constructing/shaping 'new'/revised schemata based on the new information/experiences with the help of the teacher. The authors used the term slot to describe how new information entered into the students' new schemata. The slotting process can be varied in terms of complexity and types. The variety of slots take place in the stage of Schemata Stimuli. Finally, the stage of Schemata Evaluation is the stage where the new information that comes from stimuli are evaluated. The new information that is not incompatible with the current schema will be rejected, and vice versa.

. Two classes, each with 50 students, were designed with random assignment to establish the counterfactual of subjects' characteristics to measure the effect of the

treatment. The result of the experiment showed that the teaching method that uses the schema theory is more effective than the conventional method. The exam and quizzes scores of students taught using the schema teaching method are significantly higher.

In other empirical research conducted by Coetzee et al. (2016), the schema theory is one of the background theories emphasized by the authors. They posit the schema that represents the prior knowledge of the participants of the study as the important factor for them in the learning process. It is important to note, in subsequent parts of the study, the authors mostly use the term prior knowledge to describe the basic mental structure of the students. This frequent use of the term prior knowledge, instead of schema, vindicates the observation made by Gaffney and Anderson (2000) about the declining popularity of schema theory in the education domain.

This study uses the setting of a Financial Reporting course in a South African college and investigates the participants/students' reading comprehension of International Financial Reporting Standards (IFRS). In the accounting domain, IFRS is a relatively new and escalating phenomenon, as there has been a massive movement from almost all countries around the world to adopt and implement a universal financial standard to increase the efficiency of the global market. The globalization of international trade requires the uniformity of financial standards, and IFRS facilitates the objective of standards harmonization.

The mastery of IFRS is crucial for undergraduate accounting students. Therefore, this study tries to contribute to the accounting education scholarly works by answering the research question of what factors affect students' reading comprehension of IFRS. In answering this question, the authors used the schema theory guidance to understand the

comprehension of new information. As the authors mention, “schema theory aids in the understanding of the role of an individual’s pre-existing ideas and information (schema) developed through their own life experiences. “(p.5).

The results of the study show that the factors influencing students’ reading comprehension of IFRS are all related to the prior knowledge (individual’s schema) which is indicated by several variables, such as prior academic performance, existing language capability, and enrolment in the education program (as another indication of specific prior knowledge). Other factors that are not related to the individual’s schemata, such as race, gender, and the type of school, do not have a statistically significant effect on the students’ performance. The results of this study show that schema is a necessary construct that explains the performance of students in classrooms significantly.

Having discussed the basic concept of the schema theory above, there are several lessons that we can obtain. First, the schema theory is useful to help us understand how an individual/student accepts certain information and rejects others. This decision takes place in the cognitive domain and is determined by the individual’s existing mental structure. Second, this mental structure is constructed through experiences of the individuals. However, schema theory as one of oldest theories in the cognitive constructivism domain and therefore has been verified by countless scientific evidence, does not provide technical prescriptive guidance on how to construct ‘good’/scientifically verified schema for individuals/students. It describes the generic learning process that occurs in the learner's cognitive domain without specifying the pedagogical aspect that will increase the probability of the learning process to occur. Considering these two observations we need to complement the schema theory with one that enables and guides

instructors, like myself and my collaborators in this current study, in implementing an instruction that ensures the learners to experience a meaningful learning process.

Fortunately many scholars, especially from the domain of education, have been successfully articulating solutions to this problem by proposing theories that can be categorized in the group of Instructional Design Theory. This set of theories offer specific and technical guidance to instructors in designing instruction to achieve the desired instruction goals. In the context of the current study's specific goals, Elaboration Theory of Instruction (ETI) as the extension of Schema theory is the most perfect fit to guide me in designing a draft of user approach content sequencing of the first course in accounting. As a prescriptive theory, ETI provides the guidance to design instruction that increases the probability of the students to experience a meaningful learning process (Reigeluth, 2004). The following section will discuss the theory in more detail.

2.5.2 ELABORATION THEORY OF INSTRUCTION

The Elaboration Theory of Instruction (ETI) was first developed by Dr. Reigeluth, a professor of education from Indiana University, and his associates in the late 1970s as an instructional design theory to guide designers in organizing and sequencing the curriculum contents (Reigeluth et al., 1980; Reigeluth, 1979, 1999). The main idea of this theory is that the instructors and designers should assist the learners to activate their existing set of knowledge as the basic structure in the knowledge building process. This is done by structuring the content in such a way that it begins from simple/general concepts and gradually moves toward more complex ones in order to provide a meaningful learning experience to the learners (Reigeluth et al., 1980; Reigeluth, 1979).

In other words, this theory is basically the extension of Ausubel's meaningful learning theory and Bruner's Spiral curriculum (Gibbs, 2014; Sexton, 2020).

This theory is also the operationalization of the schema theory, as one of the most prominent theories in the learning theory, especially in the category of cognitive constructivism. As Reigeluth (1979) argues, compared to theories in the domain of learning theory, ETI is more prescriptive, and therefore is more informational to the instructors in designing and implementing their instruction plans in their classrooms since it prescribes the method that they can use to increase the probability of learning. More specifically, this theory is very useful to guide the educators in sequencing, synthesizing, and summarizing curriculum contents to scaffold learners in comprehending the learning materials (English & Reigeluth, 1996; C. M. Reigeluth, 1999).

From the learners' perspective, ETI provides avenues to facilitate them in achieving their objective of meaningful learning experience (Reigeluth & Darwazeh, 1982). Reigeluth et al. (1980) argue that using ETI (1) the student will have better long-term retention of knowledge; (2) the student will gain an additional kind of knowledge, one that is usually more valuable than segmented information; (3) the student will enjoy the learning more; and (4) the student will have higher motivation to learn. These positive effects claimed by the authors show the importance of learners as active participants in the learning process.

To achieve its full potential positive effect in facilitating learners to have meaningful learning experience, ETI prescribes seven components of strategy as guidance to the instructors in designing their instruction plans (Reigeluth & Stein, 1983). The first strategy is elaboration sequence strategy. In this strategy, learners will need to

comprehend general concepts first, as a foundational framework/schema to understand the more complex concepts. The similar principle of sequencing from simple to complex also has been articulated by other scholars using different labels such as overviews (Hartley & Davies, 1976), advance organizer (Ausubel, 1978), webteaching (Norman, 1973), knowledge schemata (Dansereau, 1985). The elaborative sequence, however, is different from those concepts in two points: (1) the generic content epitomizes the more complex content, (2) epitome is developed based on the structure of the content. In this theory, the epitome is not necessarily identical to the summary, it is a framework that contains the primary content of the subject that will be useful to comprehend more detailed concepts (Merrill, 1983).

The second strategy is Learning Prerequisite sequences. This strategy is suitable for multiple subject course sequences, like Financial Accounting course sequence, as the object of analysis in this current study. In this strategy, learners need to take a prerequisite course that provides more general concepts than the subsequent level of the course. Even though this strategy is similar to Gagné (1968) hierarchy of learning, however, as Reigeluth and Stein (1983) maintain, ETI explicitly specifies that it is the concepts, procedures, or principles as factors that determine the necessity for simple to complex sequences.

The third strategy is the use of a summarizer for each lesson. This strategy is crucial to increase students' retention by providing them with short, concise statements that convey the main ideas of the subject, and examples as references to comprehend concepts, procedures, and principles of the subject matters. According to Reigeluth and Stein (1983) there are two kinds of summarizer, those are internal and external. Internal

summarizer is provided at the end of a lesson and summarizes only the concepts that have just been learned. External summarizer (within-set summarizer) is provided after several lessons, that summarizes a particular topic/subject.

The fourth strategy is to use a synthesizer. This strategy is aimed to create interconnections among concepts, procedures, and principles in the learning process. This strategy also facilitates the learners to experience meaningful learning by displaying them the epitome or broader framework of a concept, procedure, and principle (Ausubel, 1968; Reigeluth and Stein, 1983), and eventually increase the learning motivation on the part of the learners (Keller, 1983). By connecting new knowledge with the existing one, and therefore creating the meaningful learning experience, the synthesizer strategy increases students' retention (Ausubel, 1964; Gagné, 1978; Quillian, 1968).

The fifth strategy is to use an analogy. This strategy is particularly useful in clarifying difficult concepts, i.e. ones with which the learners are unfamiliar due to lack of connection from their existing mental schema (Dreistadt, 1969; Reigeluth, 1983). The use of the analogy is useful since it helps the learners to grasp the concepts by using comparable, yet much more familiar instances to the learners. Analogy facilitates the assimilation of new knowledge into the learners' existing knowledge structure, therefore the concepts comprehension can be attained.

The sixth strategy is to use cognitive strategy activators. Effective learning is the one that stimulates the learners, either consciously or unconsciously, to develop their own cognitive strategy (Bruner, 1968; Gagné, 1977; Rigney, 1978). The cognitive strategies can be the efforts to organize the learners' internal process in learning, memorizing, and comprehending (Gagné et al., 1985). Rigney (1978) suggests two ways to activate

cognitive strategies: embedded strategy and detached strategy. The embedded strategy is the activator strategy that is embedded in the lesson; the learner is often unaware that they have already activated this strategy because the teacher makes it as part of the lesson. The examples of these activators are the use of pictures, diagrams, graphs, mnemonic, or adjunct questions (Rothkopf, 1976). On the other hand, the detached strategy is a strategy that the learners consciously develop, can be part of the assignments from the instructor, to comprehend concepts, procedures, and principles.

The last strategy is a learner control format. In this strategy, the learners take control of four elements: content control, pace control, display control, and conscious cognition control (Merrill and Twitchell, 1994). This strategy uses the basic assumption that the learners have better information about their own needs and capacity. The assumption is especially relevant in the adult learning context in which the current study is categorized.

The discussion on Schema theory and ETI above gives us a clear message that to accomplish the ultimate objective of learning, it is important to assist learners in constructing the correct basic mental structure, i.e. schema, upon which the new knowledge can be built, therefore the meaningful learning experience can take place. The discussion on these two theories also shows the importance of the learners as active participants in the learning process that the instructors, and curriculum and instruction designers need to take into consideration when planning and designing a curriculum and instruction. Schema theory as a descriptive theory, i.e. describing how the learning process occurs in learners internal mental structure, and ETI as prescriptive theory, i.e. prescribing how learning process can be increased probabilistically through prescribed

methods, are very useful to help me in designing a draft of well-rounded the first course in accounting content sequencing (I will discuss in more detail regarding the construction of the draft as the main intervention in Chapter 4). More importantly, I expect the andragogical rationales that these two theories offer and complement the existing practical rationales will convince my collaborators to join my accounting education reform initiative.

CHAPTER 3

RESEARCH DESIGN AND METHODS

In this Chapter I discuss in detail the design and methods that I use in the current research to first, find the critical relevant factors of the collaborators' general resistance to the past education reforms. Second, I then subsequently use the information to construct a strategy to administer the effective intervention procedures in stimulating my collaborators' enthusiasm to actively participate, as the change agents and advocates, to develop the reform draft of the first courses content sequence in accounting. The main objective of the current study, therefore, is not necessarily about producing a well-defined and universally accepted accounting education reform proposal, rather it is about identifying the effective mechanisms to transform a general resistance to change into a change acceptance and advocacy mindset among the faculty in our Accounting Program. To achieve two sequential objectives above, I implemented two cycles of study; the first one was the investigation study, particularly to explore my fellow accounting instructors experiences of and attitude to the past accounting education reforms in our institution. The second cycle was the intervention study, which was aimed at measuring the level of enthusiasm of the collaborators when they were provided with the draft of user approach/ETI-based content sequencing of the first courses in accounting. In implementing the main intervention, i.e. the draft, I also concurrently implemented a setting control environment intervention as my effort to "modify" the research

environment that served as a catalyst for the positive responses from the collaborators toward the main intervention.

As articulated in the Conceptual Framework section in Chapter 1, the underlying context of the current Problems of Practice (PoP) can be categorized into two levels: global and local contexts. In the global context, the current PoP represents the response to the constant demand from the accounting academic and practitioner communities to adjust the accounting education to the continuously changing accounting practices and regulations. On the other hand, the local context of the current PoP shows the historical pattern of consistent rejection of the past proposed education reforms by the faculty in our Accounting Program. These two levels of context affect me in defining the PoP of the current research as follows:

1. There is a lack of information on the critical relevant factors of our accounting faculty rejections/resistance to various calls for education reforms in the past.
2. Corollary, there is a lack of guidance for effective mechanisms on how to introduce an accounting education reform that will ensure the full support and commitment from our faculty.

After identifying the two sequential PoP above, I needed to "operationalize" them into research questions (RQs) to enable me, as the main researcher, in developing a comprehensive strategy of research activities, i.e. methodology, to effectively address the defined PoPs (White, 2017). The following are the two research questions, from which the current research process is designed.

RQ#1: What are the critical relevant factors for the general resistance of the accounting faculty in our institution toward the accounting education reform plans/initiatives that have been proposed in the past?

RQ#2: Based on the RQ#1 answer and the existing relevant frameworks developed by scholars in this subject, what are the effective strategies to ensure the FA faculty's support and commitment in developing collaboratively my proposed FA education reform?

The distinctive properties of the above PoP call for a unique method of inquiry that is different from the mainstream classical positivist research tradition, in which the researcher(s) and the research participants are explicitly separated to obtain objective measurements. The best research method for accomplishing the current study objectives would be one that focuses on applied and immediate PoPs, incorporates value-laden/socially and locally constructed research objectives, accommodates flexibility in research design and process, and last but not least, it should facilitate multiple cycles of research procedures. Among available research methods, I believe Action Research (AR), more specifically the Participatory Action Research (PAR) as the subset of AR, is the most appropriate method of inquiry for the current study because it has the characteristics needed for accomplishing the current study's objectives.

In the following sections, I will provide a detailed description of how this project was designed, enacted and studied. I will begin with a rich description of the context, the participants and my own positionality in order to provide the background needed to better understand the research procedure of the current study. I will then provide an overview of the methodological design of the study and the rationale for why this design is an

appropriate way to answer the above RQs. I will conclude this chapter with a thorough and detailed description of two research cycles implemented to achieve the objectives of the current study.

3.1 CONTEXT, PARTICIPANTS AND RESEARCHER POSITIONALITY

As a study that tries to answer the RQs that arise from my immediate/local problems, I used the specific context of my institution, i.e. an Accounting Program that is located in Indonesia, to implement a set of scientific investigation and intervention processes. Indonesia as a developing country located in South East Asia, which comprises more than 13,000 islands, has a highly centralized K-12 education system. On the other hand, its Higher Education system is much more decentralized than that of K-12 level, with a high degree of discretion being granted to the universities/colleges in setting up their own curricula and specialties. Despite this high autonomy, the curriculum structures across higher education institutions, including the accounting education programs in this country are relatively uniform. This is very different from that in the US accounting programs, in which a wide variety of curriculum structures, elective courses, and specialties are offered to the students.

The uniformity of education systems across accounting programs in Indonesia, despite the absence of regulations, shows the effect of institutionalism (Scott, 2012). One of the positive aspects of this relative homogeneity, from the current study's perspective, is that it provides a natural advantage for the research results transferability. Hence it increases the level of relevance, despite the use of convenient and purposive small (n) sampling method, i.e. the accounting professors in my institution. Using the paradigm of post positivism, I sought to avoid overgeneralization of the current study findings into

different settings and subjects. Instead, the readers are expected to use their own discretion and wisdom with respect to the application of the current research findings in their education settings.

The uniform aspects that characterize the undergraduate accounting education in Indonesia, among other things, include the total of credit hours required for the students to earn the accounting degree; the freshmen status with respect to the accounting major; and the most relevant aspect to the current study's topic is, the stratification of the Financial Accounting (FA) courses. First, the total credit hours requirement for an Indonesian accounting college student to obtain a bachelor degree in Accounting is 140 credit hours, at minimum. Further than that, there are an additional 24 credit hours for those who are interested in obtaining an accounting profession certificate, which is the requirement for participating in CPA examinations. The second unique feature of Indonesian undergraduate accounting education that makes it different from that in the US and other countries, is that a prospective student will select a major, such as accounting, as part of the national entrance examination to a college/university. Therefore, a happy young person who receives a letter of acceptance from a college/university of her/his choice would have already had a status as an accounting major student in his/her very first semester.

The third unique feature of Indonesian undergraduate accounting programs that is especially relevant to the current study is that they divide the FA courses into three levels/sequences, i.e. basic, intermediate, and advanced level. In each level, the FA course is divided further into at least two individual courses. For example in the basic

level, the accounting students are required to take the Introductory Accounting I and II in semester 1 and 2, respectively.

As can be seen in the table 3.1 below, the basic level of FA courses consist of Introductory Accounting I and II that accounting students are required to take in the semester 1 and 2, respectively. Introductory Accounting I is the prerequisite course for the other FA courses in the table. The Introduction to Accounting I is the course of interest in our current research. This is the course that many scholars refer to as "the first course in accounting." As discussed in detail in Chapter 2, many accounting scholars urge the accounting educators to undergo a reform in this fundamental course, especially by focusing on the user approach. The current study answered this call, mainly with the guidance that Elaborative Theory of Instruction (ETI) provides. By reforming the content sequence in the basic level of FA course, I expect to assist the learners in developing a correct fundamental schema that can be used in absorbing new accounting knowledge in the subsequent level of FA courses.

Table 3.1The FA course sequence

Level	**Course**	**Semester**	**Required/Elective**
Basic	Introduction to Accounting I	1	Required
	Introduction to Accounting II	2	Required
Intermediate	Intermediate Accounting I	3	Required
	Financial Statements Analysis	4	Elective
	Intermediate Accounting II	4	Required

Advanced	Advanced Accounting I	5	Required
	Accounting Theory	6	Required
	Advanced Accounting II	6	Elective

In our institution in total there are 13 tenured professors and four adjunct professors. These professors teach different domains of accounting courses, such as Financial Accounting, Management Accounting, Taxation, Information System, Governmental Accounting, etc. Older/senior professors are usually given the privilege to have one specific accounting domain to teach and research based on their interests of/specialization, while younger professors are usually given tasks to teach different areas of accounting courses.

For the purpose of the current research, I included five tenured instructors who have at least five years of experience in teaching the FA courses listed in table 3.2 above. I have contacted these five professors in the domain of the Financial Accounting listed in the table 3.2 below and they agreed and provided a commitment to participate in this study.

As can be seen in the table 3.2, the five professors who committed to participate in this study, i.e. the collaborators, cover all the required and elective FA courses listed in table 3.1. Especially for the course of interest in the current study, i.e. Introductory Accounting I, which has been taught by professor A and B in the last five years. All the courses in the table that are categorized in the domain of Financial Accounting courses are printed in italic. Therefore, based on their professional history, the collaborators in the study are qualified to be participants of the current study. In terms of demographic

characteristics, the collaborators represent a balanced composition of gender and seniority, with two out five of them are female and three out of five are below 40.

Table 3.2 The Basic Demographic Data of the Collaborators and the Courses Taught

Professor	Sex	Age	Courses taught in the last 5 years
A	M	59	*Introductory Accounting I, Intermediate Accounting I*, Auditing II, Taxation
B	F	47	*Introductory Accounting I, Introductory Accounting II, Accounting Theory*
C	M	38	*Intermediate Accounting II, Advanced Accounting I*, Governmental Accounting
D	F	34	*Introductory Accounting II*, Management Accounting, Auditing I
E	M	29	*Financial Statements Analysis*, Accounting Information System, Management Control System

3.1.1 POSITIONALITY

Disclosing the researcher positionality is important to build trustworthiness or validity in all types of research (Herr and Anderson, 2015). The positionality disclosure is especially relevant in ex-ante research, in which the current study is categorized. In this type of research, the researchers obtain the data directly from the participants, i.e. primer data, as the results of the intervention and/or investigation conducted in the study. As an

integral part of the research instrument, hence being able to obtain the type of data they want, the researchers in this type of research can potentially achieve a high level of construct validity. On the other hand, this approach also has the potential downside of the low trustworthiness level because of the power that the researchers have in collecting the "private" data.

To overcome this problem, the researchers need to give signals to the readers related to all aspects of the data collection process to increase transparency and avoid the impression that the data was collected in ways to confirm the researchers' conviction. Just like other scientific researchers, I seek to avoid confirmation bias, one of the cardinal sins in research, both "in appearance" and "in fact" at all cost. Therefore, disclosing positionality needs to be comprehensive and thorough to increase the trustworthiness of the study. The partial disclosure will only jeopardize the study validity, since the suspicious readers will not accept the research legitimacy due to the perceived non-transparent research process. The comprehensive disclosure of positionality should include both explicit and, more importantly, implicit positions.

In the present study, my explicit positionality is an insider in collaboration with my colleagues who teach Financial Accounting courses at a Higher Education institution in Indonesia. Before I went to the US and took an unpaid leave to pursue my Doctoral degree, I taught in the Accounting Program for more than 10 years. As an insider, I have the advantage of being able to connect easily with my peer accounting professors and solicit their participation in the study. Being an insider, potentially includes difficulties in convincing the readers that the data collected are free from bias due to close connection between researcher and the research participants. Therefore, detailed documentation is

provided to mitigate this validity threat, such as the archives of written correspondence, the copies of returned questionnaires, etc.

My implicit positionality is that I categorize myself as an ontologically (weak) realist and epistemologically (local) relativist, in that I concede that there may be one true parameter out there in this world, but even if it exists, we may never be able to confirm it. We can only approximate/estimate the one true parameter through inductive efforts. As a relativist, my best approximation of one true parameter is constructed according to the accumulated data/evidence. Since we may never have complete data, consequently we may never reach absolute certainty. To generate and interpret the accumulated data/evidence, I take a position as methodologically naturalist to admit the fact that we, as human being, can only observe and measure how subjects exist in the natural world (until now, we do not have the instrument and capacity to explore the super-natural domain objectively and reliably).

My epistemological position can be challenged by readers who have a strong realism worldview that will reject any (subjective) data/observations, or even theories, as the foundation to explain the natural and social phenomena. On the other hand, as a methodological naturalist I am relatively confident that this is one of few things that most scientists can have an agreement on. In this position, as long as the set of assumptions and background settings of the data collection process are fully disclosed, then we will most likely agree on the objectivity of the data. However, it is almost impossible to have a convergent view on the interpretation of the data and their pattern of correlation/covariation. In this case, the interpretation of the data analysis and the model

constructed to explain such a pattern should be seen in the context of my implicit positionality as a weak realist and local relativist.

3.2 RESEARCH DESIGN

As mentioned above, the distinctive nature of the current PoP and RQs calls for a unique method of inquiry which is different from that used in the mainstream classical positivist research tradition. The best research method for accomplishing the current study objectives is one that focuses on applied and immediate PoPs, incorporates value-laden research processes, accommodates flexibility in research design and process, and facilitates multiple cycles of research procedures. Considering the aforementioned requirements, I believe Action Research (AR) is the most suitable method of inquiry for accomplishing the objectives that I would like to accomplish through the current research endeavor.

AR is widely known as the research method that focuses exclusively on practical problems the researchers are facing in their own environments. As has been substantiated by scholars in various disciplines of social science, the practical nature is one of the AR hallmarks that differentiate this method from other methods in solving the researchers' immediate problems. Burns (2005), for example, characterizes AR as a "systematic process of enquiry arising from [researchers'] own practical concerns" (p. 241). She further points out the usefulness of this method for researchers to improve their understanding of, and find the effective solutions to, their immediate problems (Burns, 2005). The similar definition is also articulated by Carr & Kemmis (2003) in identifying AR as a self-reflective inquiry by participants aimed to improve understanding and practice. While many other available research methods, such as case studies,

phenomenological research, etc, also provide a mechanism for dealing with the practical problems, AR goes beyond than understanding, but it helps the researchers in improving, and making transformative changes on the problems of practice in a particular context (Efron & Ravid, 2019; Munn-Giddings & Winter, 2013).

Mainly because of its practical nature, AR as a consequence has the main capacity in dealing with prescriptive PoP/RQs (Reason, 2006). The relatively narrow focus, i.e. localized PoP, creates the high degree of subjectivity of the research objectives. Blaikie (1993) explains perfectly the value-laden nature of this method by pointing out that AR considers the reality as "socially constructed and not external and independent" (p. 6). She further stresses that the meaningful construction occurs through interpretations of researchers' experiences and communication (Blaikie, 1993). In other words, the researchers' values, which are shaped by their experiences/interactions within their communities, play a substantial role in steering the direction of the study (see also Elliot & John, 1991). This unique feature is obviously different from that in the mainstream positivist research method, which is designed to solve descriptive problems using value-free methods (Shadish et al., 2002). In this type of research tradition, the researchers need to keep the distance from the research objects to maintain the objectivity and produce value-free measurements.

Using AR as a method of inquiry provides flexibility for researchers in implementing their research plan (Convery & Townsend, 2018). Cohen & Manion (1994) emphasize the AR flexible nature by pointing out that each process in AR is "constantly monitored over varying periods of time and by a variety of mechanisms (questionnaires, diaries, interviews and case studies, for example) so that the ensuing feedback may be

translated into modifications, adjustment, directional changes, redefinitions, as necessary, so as to bring about lasting benefit to the ongoing process itself rather than to some future occasion" (p. 192). In other words, AR facilitates a less rigid structure, and more flexible, research process mainly due to the open-ended/exploratory nature of the RQs that prevent the researchers to commit in advance to a specific hypothesized intervention before they understand fully the underlying problem (Altrichter et al., 2002; Smith & Rebolledo, 2019). This property is obviously in contrast to that of classical hypothetico deductive/confirmatory research tradition, in which the researchers use the rigid research process to falsify the temporary/educated guesses, i.e. hypotheses, derived from either the existing theories, previous research results, or conventional wisdoms (Popper, 2014). In this type of research, the researchers need to design a highly systematic research procedure/plan mainly due to the closed-ended/confirmatory nature of the RQs.

AR also possesses a unique nature as the only scientific research method that provides a multi-cyclical framework (Herr & Anderson, 2014; Kock et al., 1995). Although there are many AR studies that use only one cycle study due to resources and technical constraints (see Prior, 2018), this unique multicycle feature of AR provides potential benefits to researchers in achieving their research objectives. This unique feature also indicates that this method emphasizes on finding the solution of the open-ended RQs derived from immediate, applied problems, more than merely adhering to a rigid structured research procedure of testing a specific hypothesis just for the sake of it. In the hypothetico deductive research that tries to answer closed-ended questions, researchers will only need one cycle of research with the possibility of either successfully falsifying or failing to reject the hypothesis, i.e. inconclusive result (Popper, 2014;

Shadish et al., 2002). AR, due to the proximity of the researchers and the collaborators, enables researchers to have "various stages of reflection that helped to identify the problem, intervene and propose a solution…" (Prior, 2018 p.13).

More importantly from the current research perspective, AR provides the researchers the bottom-up mechanism to achieve the goals of improving practice, but also changing social reality through the research participants active engagement as the agents of social changes in their organization (Efron & Ravid, 2019; MacDonald, 2012; McTaggart, 1994). Mainly due to the emphasis on this social constructivism and democratic feature in empowering the participants/collaborators in the research process, many scholars argue that this specific breed of AR deserves a separate classification from the generic one; many would call it a Participatory Action Research (PAR) (Maguire, 1987; McTaggart, 1994).

MacDonald (2012) describes PAR as a scientific research endeavor that provides a framework for the researchers and the participants to work collaboratively in a loosely defined group in which everyone has equal power in contributing to the research. PAR draws heavily on Freire's epistemology on the subjective consciousness that reality cannot be detached from the individual's lived experience (Baum et al., 2006). These social constructivism and democratization of knowledge are certainly incompatible with classical positivist research methods in which the researcher(s) and the research participants are explicitly separated to obtain objective measurements. Maguire (1987), in comparing PAR with classical positivist tradition, explicitly stated that PAR "offers a critique of, and challenge to, dominant positivist social science research as the only legitimate and valid source of knowledge" (p. 10).

Considering the natures and characteristics discussed above, in this current study I took advantage of both generic AR characteristics and PAR's specific emphasis on the social constructivism and democratization of knowledge to solve the current PoP. As a consequence, throughout this study I used the label AR and PAR interchangeably since I view their characteristic difference as a nuance rather than distinction.

I decided to use AR as a scientific research method in the current study due to its features and characteristics that are suitable for addressing the current PoP regarding the stagnation of the accounting education reform in my higher education institutions. In the following I will discuss the alignments of the AR natures, and the usage of those natures/features to solve the current RQs.

First, as previously mentioned, AR is the research method that is suitable for addressing the practical problems. Many scholars testify the usefulness of this method for researchers to improve their understanding of, and find the effective solutions to, their immediate problems (Burns, 2005; Carr & Kemmis, 2003), also making transformative changes on the problems of practice in a particular context (Efron & Ravid, 2019; Munn-Giddings & Winter, 2013). The current study's RQs are purely practical, as they are related to and situated in the specific context of my own working higher education institution. They are not directly or exclusively related to any theoretical and conceptual problems. Hence, the emphasis of the current study is not on testing a theory, or falsifying an applied hypothesis, and to generalize the results into a larger population, just like what we typically see in classical positivist research (Shadish et al., 2002). Instead, it focuses mainly on finding the effective solutions to the PoP and applying them directly to my specific and immediate context, from which the PoP originated.

Second, since the current RQs are related to the practical problems, therefore the application of the solutions reflects the prescriptive nature of the research process (Tsang, 1997). Corollary, the application of the research results to my specific context cannot be isolated from the whole value-laden inquiry process. Again, this is different from a typical classical positivist RQ property in which researchers pursue a descriptive approach to simultaneously optimize both internal and external validity (Shadish et al., 2002). Due to this approach, an inconclusive finding (failure to reject null hypothesis) is one of logical consequences in a positivist research tradition. In the current applied-prescriptive research, on the other hand, the findings are always calibrated against the specific and contextualized objectives which are derived from socially constructed values. Therefore, the assessment of the research process can be continuously conducted as feedback to achieve the effectiveness of the study.

In the context of the current study, the socially constructed values that are derived from the accounting scholars community consensus on the urgency for reforms influence the objectives of the current study (Albrecht & Sack, 2001; Burns & Needles, 2014b; Burstein & McCarron, 2010; Diller-Haas, 2004; Fogarty & Lowensohn, 2017). These values epitomize the current dominant paradigm in the accounting scholars community in emphasizing that the FA curriculum reform is both necessary and socially desirable (Ewert & Galloway, 2009). Thomas Kuhn in his seminal work states that the role of paradigm is very crucial in the progression of science, especially in the era of "normal science" (Kuhn, 1996). He states that the paradigm does not necessarily have an objective foundation, rather it is socially constructed through the accumulation of scientific research findings. The current state of accounting reform efforts which is directed by

socially constructed values from the accounting scientific community reflects Kuhn's penetrating insight.

It is important to note that even though the main inspiration of the current PoP comes from the global accounting academic movement, the current research process focused on the specific and unique contexts in which the current study takes place. As a consequence of this approach, the generalization of the research results is not the objective nor the main priority in this study. Instead, I provide full disclosure of the research context as comprehensive as possible to facilitate the readers in assessing the degree of transferability of the research process and results to other similar settings (Creswell & Miller, 2000; Kemmis et al., 2013).

I also believe that AR is the best research method to solve the current RQs because of the flexibility that this method offers. This feature is needed due to the fact that the current RQs are open-ended, which requires an exploratory type of investigation without committing in advance to any specific conjectures (Stebbins, 2001). Unlike the confirmatory/explanatory research, in which the researchers have predetermined educated guesses to be tested through the research process, an exploratory research does not try to analytically measure each variable in isolation from its context to find the direction and magnitude of the relationship (Reiter, 2013; Stebbins, 2001). Thus, instead of following an analytic/reductionist research tradition that emphasizes on the simplistic and impractical assumption of “ceteris paribus”, the current research used the AR holistic approach that recognizes the complex constellation of both variables of interest and background constructs or “auxiliary hypotheses" in the specific context of my working institution (Doherty et al., 2010). In other words, this “messy” interaction among factors

and variables involved in the current study will be observed as a whole, and will not be reduced into the sum of all parts.

The AR nature of flexibility serves perfectly the current research objective, as it contains two open-ended, and sequential RQs. The first open-ended RQ, which represents my effort to gain a comprehensive understanding of the current immediate problem, gave me infinite possible answers and potential solutions that it is impractical for me to plan ahead what type of research intervention that I need to implement in the subsequent cycle. In this type of research context, AR flexibility is very useful for me, as the core researcher, in making the necessary adjustments to the investigation/intervention procedure to better accurately represent the real data from the research field.

The next RQs nature that makes AR the most suitable method for the current study is that the two RQs are sequential. They embody two integrated FA curriculum-related problems in my working higher education institution that I need to solve chronologically. AR has a unique feature that is specifically suitable to the current RQs, as it is the only scientific research method that provides a multi-cyclical framework (Herr & Anderson, 2014; Kock et al., 1995). This unique feature also indicates that this method emphasizes on finding the solution of the open-ended RQs derived from immediate, applied problems, more than merely adhering to a rigid structured research procedure of testing a specific hypothesis just for the sake of it.

The multicycle framework of AR that does not limit itself into single intervention/investigation (see Kemmis et al., 2013), fits with the research structure of the current study to find the solutions of the two sequential RQs of the current study. Therefore, the multicycle investigation and intervention process in this study was

conducted chronologically because the result of the initial cycle's data analysis affected the implementation of the next cycle of research. The Research Procedure section below will describe in more detail the basic framework of the current multicycle research plan.

Lastly, I would like to take advantage of the specific nature of PAR with respect to the social constructivism and democratization of knowledge to address the current RQs (MacDonald, 2012; Baum et al., 2006; Maguire, 1987). This is because the current study involved the active participation of my fellow FA professors as the collaborators of the study as the critical component for the successful curriculum reform plan and implementation. It means that they are not the object of the study, from which the researcher observes and measures their behavior independently.

As mentioned above, in the current study I implement two sequential cycles of investigation and intervention procedures, respectively. Diagram 3.1 below shows the design of the current study. In the first cycle of the study I am going to investigate the critical relevant factors, i.e. the factors that cause my colleagues to show their general resistant behavior to various education reform proposals in the past. The answers to this problem will be calibrated against the existing theoretical and empirical studies in the change management literature to find the effective procedures in inducing my collaborators' positive responses toward my proposed content spiral sequencing reform in the first course in accounting.

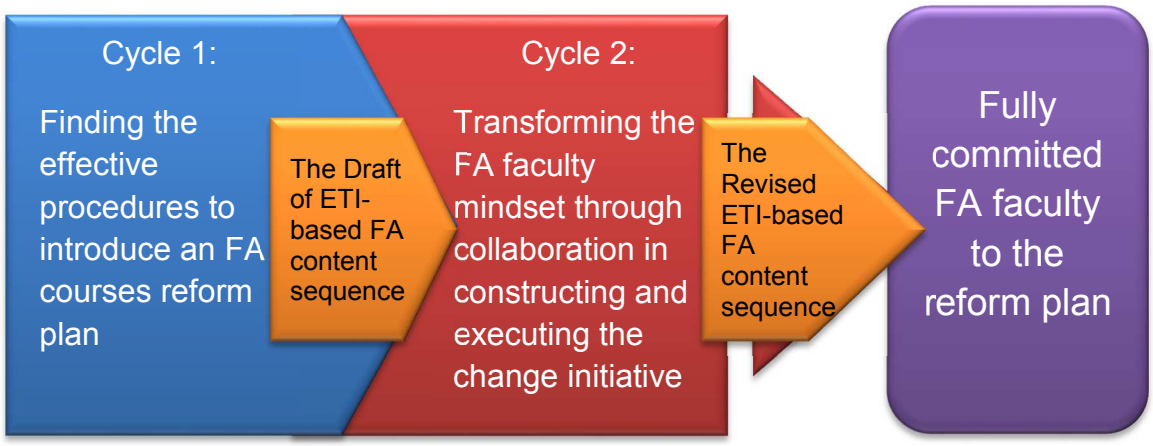

Figure 3.1 Research Cycles

In the second cycle, I will use the results of the investigation that I obtained from the Cycle 1 procedure as the setting control intervention to provide a conducive environment to. introduce the main intervention of the current study, i.e. a draft of a user approach/ ETI-based content spiral sequencing of the first course in accounting, to my collaborators (see diagram 1.1 in the Theoretical Framework section in Chapter 1). In other words, my objective in carrying out the setting control intervention is to lay out a favorable research setting/environment so that it will stimulate my collaborators' positive response to my proposed FA educational reform. The positive response is represented by their enthusiasm to be involved and actively participating in a series of group discussions to improve the quality of the draft. In creating the draft, I will use two major rationales: practical and andragogical rationales, which I have discussed in detail in Chapter 2.

The final objective of the current study, as mentioned in previous sections, is to have a new transformed positive mindset on the part of the collaborators toward a well-designed education reform. The main indicator of effectiveness of the current study is the fully committed FA Faculty working collaboratively to improve the draft and design the

new revised FA curriculum and plan to implement the curriculum in their future FA course classes.

3.3 DATA COLLECTION TOOLS

In collecting the data from the current study's participants/collaborators, I will use the email exchanges to conduct semi-structured interviews in the first and second cycle of the study. The tool is especially useful to overcome the geographical barrier between I, as the main researcher who currently resides in the US, and the collaborators of the study who live in Indonesia. It will significantly reduce travel cost and time in scheduling and implementing the investigation and intervention plan, hence increasing the feasibility of the study.

Email, as one of the oldest internet-based communication technologies, remains popular within the academic community as a research tool despite the development of the more recent communication technologies, such as Voip and Video teleconference. These newer innovations generally have the synchronous feature that requires/enables two persons or more to be available at the same time during the communication process. Such a feature can be considered as an advantage or disadvantage, depending on the situational objective set by the communication participants.

In the context of the current study objective, it is precisely the asynchronous feature that makes email a more suitable and powerful data collection tool than the other, more advanced, synchronous communication technologies. Fritz and Vandermause (2017) reported that using email interviews for data collection gives researchers scheduling advantages of the email interview, such as increasing the access to participants and encouraging greater participation of working adults. This is because

interviews conducted by email can potentially reach participants all over the world, therefore breaking geographical barriers, without the additional expense of travel cost and time.

The asynchronous characteristic of email gives the participants more flexibility and control over their level of participation than that in the conventional synchronous interviews (Gibson, 2014). This higher control and flexibility that the asynchronous participants have indicates the higher level of ethical research process since it promotes the participants' wellbeing. Another advantage of the email method is that since the participants have more control of their participation level, the researchers can expect that they will give more honest and sincere responses to the interview questionnaires. The responses that reflect the true opinion of the participants are obviously very important to produce unbiased research results, and therefore avoiding the Hawthorne effects.

The email method also gives the participants time to reflect on their responses before being sent to the researchers. Therefore, it avoids the unintentional inaccuracy of the statement on the part of the research participants. By having more time to ponder and craft written responses, the participants may be able to create well-formed and more comprehensive arguments.

For researchers, other than saving time and money from travelling and scheduling for traditional and/or synchronous interviews, the email method also saves their time and money in transcription cost. The written form of responses in email exchanges can be easily converted into transcribed data, therefore practically eliminating transcription cost that usually happens in oral interviews. Turner (2016) estimates that on average researchers spent sixty dollars per hour in transcription cost. This expense, in many cases,

is the biggest expense in qualitative research studies (Turner, 2016). In the case of the current study, the absence of the transcription cost enables me to focus on the translation effort from Indonesian language, the language used by the participants of the current study, into English.

The email exchanges procedure can also be enacted just like the one in conventional interviews without missing the advantages of the email method as mentioned above. In the case of the current study design, the first cycle of the study will use the person to person setting of semi-structured interviews. This email exchange setting is generally used to ensure privacy and anonymity of the research participants. The second cycle will use the design of the focus group to facilitate the discussion of the collaborators as a group of FA instructors to design a user-approach FA curriculum. The group dynamic setting of email exchanges is useful to ensure the collaboration and interaction among the research participants to achieve the current study's objective.

Other than the advantages described above, email exchanges as a data collection tool also have several disadvantages that pose a threat of validity to the current research. First, since the collaborators have full control on the level of participation increases, the potential level of attrition also increases. As Hawkins (2004) mentions, the lack of face to face synchronous interaction between the researchers and participants, make it easier for the participants to be unresponsive to the researchers prompts. Second, the high control of participation level also means that the participants also have control of response timing, therefore increasing the potential of late responses. This, in turn, will affect the researchers' schedule/timeline in finishing their research.

To mitigate these problems, I will periodically and continuously send reminders to the collaborators to give their responses by the agreed-upon schedule. As an insider researcher (see Positionality section), I have the advantage of having a relatively close and positive relationship with the collaborators. Therefore, by having continuous email exchange throughout the study, I expect to increase response time and rate in this study.

3.4 RESEARCH PROCEDURES

As discussed previously, the specific natures/properties of the current study's PoP and RQs guide me to utilize AR as the method of inquiry. One of the main reasons for utilizing such an inquiry method is that it provides the mechanism to conduct two chronological research cycles of investigation and/or intervention as a manifestation of a comprehensive scientific endeavor to gain understanding of and find solutions to the aforementioned PoP in my working institution.

For pragmatic reasons, many researchers usually break down one cycle of AR research into four sub-cycles/phases, i.e. planning, acting, observing/measuring, and reflecting activities. The procedure partitioning into these four phases is useful for the AR researchers to design a systematic plan, while still maintaining the flexibility in implementing research procedures and to ensure an effective implementation of the plan. This mechanism will also make it easier for the readers to evaluate the transferability of this study process and results to other similar settings and subjects of research (Creswell & Miller, 2000; Kemmis et al., 2013).

I will dedicate the following section to describe the current study's rough/tentative plans of the investigation and intervention cycles, consecutively. These plans are indeed tentative, and not necessarily refined nor fixed yet because, as the

natures of AR suggest, the executions of the plan are dependent on the real data/situation that the researcher will collect/confront in each cycle and/or subcycle/phase. This is one of the reasons, as discussed in the previous section, that the AR is the most appropriate method of inquiry to solve the current PoP, as it provides me with the flexibility in dealing with the multi and sequential PoP.

In the current study's first cycle, I am going to conduct an investigation process to gain a comprehensive understanding on the factors causing the general resistance from my fellow accounting faculty to previous calls for accounting education reforms. The emphasis of this cycle is to facilitate reflection on the part of the collaborators with respect to their interactions and understanding with the reforms in our institution, and find any patterns of the reform designs with their responses/attitude toward those reforms.

To achieve the objective of the first cycle of this study, in the Planning phase I will start the inquiry process by making contact with five FA professors in my institution to solicit their initial commitment to participate in this study. I will disclose fully the research plan, objectives, and procedures, as well as the general expectation of this study to the collaborators. The full disclosure of all research aspects is very crucial for ensuring a sustainable and successful implementation of the study plan as they are the integral part of the research process. They are not the research objects whose responses to be measured with the assumption of ceteris paribus. Instead, they are research partners whose commitment, ideas, and constructive criticisms are crucially needed to make the current research successful. Therefore, their willingness to participate in this study will be

based on fully disclosed information on the research objectives as well as ramification of the results.

In the acting phase, I will conduct a series of semi-structured interviews with five Faculty members who are currently teaching different levels of FA courses (Introductory, Intermediate, and Advanced level). The email method will be used as the main means of data collection in this study. As discussed in detail in the Data Collection section, I consider the email method the most efficient and effective means of collecting the data for the current study considering resource constraints I have and geographical differences between the researcher and the collaborators (Fritz & Vandermause, 2018; Hawkins, 2018). The email correspondence will not degrade the data validity from the collaborators, in fact it gives me the effective audit trail that can be verified by both I, as the main researcher, and the collaborators. The time difference between me, who lives in the USA, and my collaborators, who live in Indonesia, when the study is conducted, is also one of the advantages of using email as the method of obtaining the data. The Indonesian language as the first language of these five professors will be used as the communication language. I will translate the transcript of correspondence into English for subsequent analysis.

In the observing/measuring phase, I will observe my collaborators' responses to the interview questions and measure qualitatively their experiences on the previous accounting education reform plans and implementations in our institution. The observations and measurements activities in this phase will enable me to obtain a list of factors that affect the collaborators' perception on various proposed reforms in the past. I will codify these factors, based on their direction and magnitude of the effect, so that they

can be compared directly with the existing frameworks/models developed by the scholars in this particular area of organizational reform (data coding will be discussed in detail in the next section).

By comparing and fitting the empirical data with the existing models, I will be able to obtain from my colleagues the recommended mechanisms/procedures from the existing models for introducing a reform draft. In the reflecting phase, this list of recommended mechanisms will be the subject of discussions, evaluations, and revisions between among the collaborators. We will focus on evaluating whether these results satisfy or deviate from our expectations and how these recommended mechanisms can be used effectively in the next cycle of study for the purpose of increasing the faculty members' commitment to be involved as the change agents.

In the second cycle of the study I will use the specific mechanisms/procedures as suggested by the first cycle investigation's findings to navigate the effective intervention mechanism so that the ultimate objective of the current study can be achieved. In the planning stage, I will introduce to my collaborators the draft of the user approach/ETI-based content spiral sequencing of the first course in accounting that I have constructed using both practical and theoretical rationales.

The practical rationale comes from the accounting stakeholders' demand to make the content of the first course in accounting more "user-oriented." The theoretical rationale, on the other hand, is inspired by the widely accepted theories in the domains of Cognitive Constructivism and Instructional Design, more specifically Schema Theory and Elaboration Theory of Instruction, respectively. .

In this phase I also will solicit initial commitments from the collaborators through the final stage. Obviously, as we enter phase two, i.e. the Acting phase, of the second cycle, which is the interjection of the recommended procedures for reform produced in the first cycle, I expect to have a more transformative type of commitment, instead of merely a transactional one (Bass & Riggio, 2006).

In the Acting phase, by using the recommended procedures for implementing effective reform produced in the first cycle, my collaborators and I will have a more focused discussion in designing the new FA curriculum for our higher education institution that is based on both the guidance from the accounting scientists community and the andragogical aspect. The expected results from this phase is the new sequence and organization of FA contents from Introduction level to Advance level that follows the practical guidance from the accounting community and theoretical guidance discussed in ETI.

In the Observing/Measuring phase I will qualitatively measure the level of my collaborators' enthusiasm in the process of designing the new user approach FA curriculum and their commitment to implement the new FA curriculum in their respective classrooms in the future. The focus of the measurement is obviously on the final level of enthusiasm and commitment, as mentioned above. However, I will also measure the change magnitude of the parameter by calibrating the final measurements against the initial level of enthusiasm. I expect to have a significant difference in the enthusiasm level at the beginning and at the final of the study.

In addition to measuring the difference in enthusiasm and commitment level at two points of timeframe, I will also measure the difference of the new FA content and

structure. Just like the enthusiasm measurement, as the main parameter measurement in the current study, I also expect to have a significant difference in the content and structure between the draft version and the "final" version of the new FA curriculum. However, as mentioned in the beginning of this chapter and will be mentioned again in the Delimitation of the Study section below, the current study's main focus is on eradicating the inertia to change behavior among my colleagues in our institution. The current study will not try to establish the ultimate ideal of FA curriculum that can be applied in all contexts of the educational process.

As a constructivist and fallibilist, I am in the position that there's no such thing as a final/ultimate ideal of educational structures, such as curriculum, even in the specific context of our Accounting Program institution. While an approximated/socially constructed ideal FA curriculum can be obtained albeit in a limited dimension of space-time of a constantly changing accounting/business environment, the current study will focus instead on the human aspects, especially their responses and perception on the change process. By focusing on how to successfully stimulate a transformative reform mindset upon the accounting instructors in our institution, as the reform implementers, the current study will provide a template for future myriad reform plans in the ever-changing accounting world (see Significance of the Study section in Chapter 1).

3.5 TREATMENT, PROCESSING, AND ANALYSIS OF DATA

As a consequence of having two cycles of investigation and intervention which represent two different objectives, and nature and scope of procedures, I need to apply two separate and distinctive treatments, processing, and analysis of data in the current

research. In the following, I will discuss in detail the data analysis plan that I will use in each of these two cycles.

As mentioned above, in the first cycle I will implement an investigation study with the main objective of finding the critical relevant factors of the inertia to change among the collaborators. This endeavor indicates my position against the deficit view of instructors with respect to the educational reforms. The previous literature on this subject from various domains of social sciences shows the group members' perceptions to the reforms do not emerge from a vacuum. They are the consequences of other underlying, more fundamental, factors. Finding out these antecedent factors is the objective of the first cycle that were used to determine the strategy for administering both the setting control intervention and the main intervention in the second cycle of the current study.

To achieve the objective of this cycle, I will conduct a series of semi structured interviews using the email exchanges with each of the collaborators in a private setting. I will use the person to person email interviews mechanism, instead of the group setting, to provide more privacy and a free environment for each of the collaborators to express his/her critical assessments and perceptions with respect to the accounting education reforms that they have dealt with in the past. I will inform the collaborators that their feedback will be kept confidential to encourage them in elaborating their true concerns, critiques, and suggestions for better design/mechanisms of reforms. The confidentiality of the data sources in this study is important, especially considering the socio-political and institutional configuration in the centralized Indonesian Higher Education Human Resources system. I do not want to jeopardize my collaborators' professional/academic

career by participating in the current study and being critical to the past education reforms' policy and implementation.

The data that I obtained from the first cycle interviews reveal the detailed professional characteristics of the collaborators, including their level of interaction and involvement in the past education reforms in our Accounting Program, as well as their perceptions and assessments on those reforms. The first part of the questionnaire is aimed to uncover demographic characteristics of the collaborators, especially related to their professional history and roles/interactions with the past reforms. These data will help me to find any potential patterns of correlation between collaborators' socio demographic attributes with their perception of the proposed reforms. For example many previous studies discuss about the potential correlations between the group members' age/seniority with the inertia to change attitude (see for example Posthuma and Campion, 2009; Kunze, Boehm, & Bruch, 2010; Demircioglu, 2020). The studies above also indicate other demographic characteristics such as tenure, hierarchical position, and socioeconomic status may predict the individual's attitude to change.

The next part of the interviews explore the collaborators' descriptions, perceptions, and assessment on many different aspects of the designs and implementation mechanisms of the past curriculum reforms. To anticipate the collaborators' responses, in the second part of the interviews I code/structure the questions into five categories/aspects of the reforms that can be expanded or reduced based on the real interview data (see Figure 3.2 below). These preliminarily five categories that I use for the interview data coding are based on the previous literature discussed in Chapter 2.

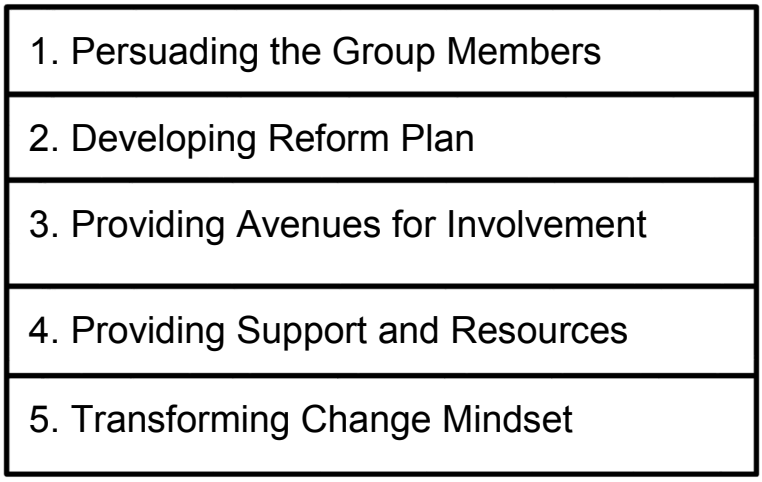

Figure 3.2 Preliminary Codes

The usage of the preliminary code that will be modified based on the real interview data indicates that I am using the mix coding mechanism, which is the combination of deductive or top down and inductive or bottom up coding mechanisms. In this case, I will initially develop the coding deductively using the guidance from the previous research results in the domain of Public Management, Organizational Development, and other relevant domains in social sciences. Upon the completion of data collection in the first cycle, I will analyze the data to be able to assign them into the existing code. In the case where there is no ideal existing code that matches the raw data, I will create new ones to match with the theme of the data.

In a study which uses qualitative data for analysis, such as the current study, coding mechanisms are very useful to help me as the researcher to look for the themes and patterns in the interview data. Using the code mechanism enables me to obtain more meaningful information from the collaborators, hence helping to achieve the objective of

finding the critical relevant factors of the collaborators perceptions to previous education reforms.

In addition to the main objective of enabling the researchers to transform the raw data into more meaningful information, the coding mechanism in qualitative studies also brings many advantages such as increased validity, decreased bias, increased accuracy in representing the participants views, and increased transparency. It increases the validity of a qualitative study because it provides a systematic way to structure and organize the interview data for analysis. The systematic organization of data due to coding mechanisms will also help researchers be aware of, and therefore, avoid any potential biases. The explicit structuring and classification of the qualitative data into specific themes and patterns will help researchers to accurately represent the participant(s) views. Most importantly, the mechanism will increase external validity because it provides transparency in the process or methodology of analyzing the qualitative data to the readers.

In the second cycle, I will implement the main intervention, i.e. introducing a draft of the user approach/ETI-based content spiral sequencing of the first course in accounting, to the collaborators of the current study. Since the current pragmatic study objective is to find the solution of the practical problem, I need to increase the probability of the positive responses of the collaborators to the main intervention. Therefore, providing a conducive environment by implementing setting control intervention is crucial to stimulate collaborators' enthusiasm in participating actively in developing the draft of the first course in accounting education reform. More explicitly, the set of intervention that I will implement in this cycle comprises two components: the main

intervention and setting/environment control interventions. The structure of the intervention is similar to that in positivist studies, such as prospective cohort studies. In this case, the main and setting control interventions are analogous to independent variable/intervention of interest and active control variables/interventions, respectively. The main intervention itself is in the form of the preliminary/proposed materials sequencing in the introductory course in Accounting that will be discussed, constructed, and modified collaboratively in the study. The settings control interventions, on the other hand, will be implemented to facilitate and motivate the group members/collaborators to embrace and advocate the proposed change by actively analyzing, deliberating, and reconstructing the proposed main intervention. The results from the first cycle of the study will help me to achieve this objective by guiding me what factors need to be included in the intervention process.

Unlike the first cycle, in which I use the person to person setting of email exchanges, in this cycle I use the group settings of email exchanges. This setting of email exchanges is similar to that of the traditional focus group, therefore I expect the discussions will be more interactive and collaborative between I and the research participants. The discussions in a group setting will enable us to complement each other's knowledge about the latest theories and empirical research results in the domain of education, especially accounting education, and apply the knowledge to analyze and reconstruct collaboratively the proposed content sequence of the first courses in accounting.

To ensure the implementation of the interactive, productive, and collaborative group discussions that will eventually produce a well-rounded content sequence in the

first courses in accounting, I need to set up the discussion environment that facilitates such objectives to be accomplished. I will use the results of the cycle 1 data analysis as the guidance to set up such an environment for discussions. As mentioned above, there are five categories that I have initially formulated as relevant factors of successful reforms. I construct these five categories of factors based on my initial practical knowledge on the previous proposed reforms in my Higher Education institution, as well as the previous literature in the domain of Organization Development, Public Organization Management, and other Social Sciences. The list of relevant factors is subject to revise based on the critical assessment on the data obtained from the first cycle semi-structured interviews, hence critical and relevant factors. Therefore, the main intervention in this cycle will be implemented in a group setting discussion simultaneously with the critical relevant factors obtained from the first cycle analysis results.

In conducting the data analysis that I obtain from the focus group discussion through email exchanges in this cycle, I use a relatively new technique developed by Onwuegbuzie et al. (2009) which is called micro interlocutor analysis. This type of analysis is chosen because it fits with the objective of the second cycle in this study. This analysis enables me to focus on the individual collaborator's performance/contribution in the focus group discussion dynamic. The measurement on the individual collaborator, instead of the overall result of the discussion, shows the indication of the level of acceptance and willingness to become the advocate of the proposed change for each of the collaborators.

Unlike other types of focus group data analysis techniques, the micro interlocutor analysis incorporates both quantitative and qualitative indicators in the discussion dynamics. I will use both types of indicators to complement each other in assessing the level of acceptance and enthusiasm of each collaborator on the proposed change. The quantitative data, such as the frequency, and the length (the number of words) of the email responses, are the important indicators that I will use in the current cycle.

These quantitative indicators, needless to say, are insufficient to inform me about the collaborators' acceptance and enthusiasm of the proposed change because they do not convey the content quality of the responses. Therefore, I need to complement them with more qualitative indicators to provide me with a more complete picture of each collaborator's attitude during the intervention process in this cycle. The qualitative indicators such as each individual collaborator's depth of critical analysis, and his/her level of involvement in reconstructing the proposed content sequence, will provide a deeper insight on their level of enthusiasm and commitment to the proposed change.

During the study, especially in the second cycle, I expect to have highly enthusiastic collaborators who actively participate in the process of the current study and, therefore, at the end of the study they become change agents and advocates for the implementation of the reform plan we are collaboratively developing. By achieving the expected results, the current study is the first step toward a larger accounting education reform in our institution, especially in the domain of Financial Accounting courses, since the change of content sequence in the first course of accounting inevitably impacts the content sequence in subsequent levels of FA courses. My hope is that the current study investigation and intervention process will provide a template for an effective mechanism

of future accounting education reform design, not only in my institution, but also in other Higher Education institutions in Indonesia. The successful implementation of the reform plan should also improve the quality of accounting education that our institution provides to our accounting stakeholders, especially our students.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

In this chapter I discuss in detail the data collected in each of two research procedures and their analysis. The first procedure is aimed to obtain the list of Critical Relevant Factors (CRFs), i.e. the factors that significantly affect education reform initiatives in our institution to be executed, especially those related to the faculty members' general resistance. The second procedure starts with applying the factors in the CRFs list to facilitate the faculty mindset transformation to become the change agents and advocates. Accomplishing these two sequential objectives, which are derived from the PoP, will not only serve as the solution to the current stagnation problem of the accounting education reform in my institution, but will also provide an ideal template for future reform plans in the ever-changing accounting world, especially in our institution.

4.1. INVESTIGATION AND INTERVENTION RESEARCH PROCEDURES

As mentioned above, in the current research I conducted two research cycles, i.e. the investigation and intervention cycles. The investigation procedure was intended to obtain the list of CRFs to shed light on the causes of reform initiatives failure, especially with respect to faculty members' general inertia to reform, in our institution. On the other hand, the intervention procedure was intended to overcome the general resistance attitude and transform the collaborators' mindset to become change agents and advocates to the accounting education reform in our institution.

Just like in most studies that use Action Research as the method of inquiry, in the current study I break down the research procedures/cycles into four subcycles/phases, i.e. planning, acting, observing/measuring, and reflecting to facilitate transparency and transferability of the current research findings into similar research settings as the consequence of providing the detailed background context/auxiliary hypothesis (Creswell & Miller, 2000; Kemmis et al., 2013).

The breakdown, however, is not intended as the formulation of a rigid mechanism of the research procedures implementation. The pragmatic aspect of AR allows the researcher to focus on obtaining the expected results, i.e. improved practice, rather than merely adhering to the rigid procedures (Altrichter et al., 2002). In this case, the classification of phases is useful, among other things, to distinguish the natures of procedure and goals of each study's phase. However, in achieving those goals, AR researchers may potentially need to modify their original procedures to adapt to the new and changing situation in all aspects of the study (Babüroglu & Ravn, 1992). This flexibility is useful and inevitable in this type of research and is enacted throughout the cycles and phases of the current study.

4.2. GENERAL FINDINGS OF CYCLE 1: INVESTIGATION

In the first cycle, I conducted an investigation process to obtain a comprehensive answer on why most of the reform projects in our institution failed to be executed, and more specifically, how the general resistance from my fellow accounting faculty to accounting education reforms contributed to these failures. The objective of this cycle, therefore, is to obtain the underlying reasons, i.e. critical relevant factors (CRFs), of the inertia to reform in my institution. In achieving the objectives, there were four

operational procedures that I needed to implement. First I contacted my peer accounting instructors who were willing to participate in the study. Second, I provided them with a set of questionnaires that extracted information regarding their experience with the previous proposed education reforms. Third, I observed their responses, and calibrated them against the measures that I constructed using the literature in the change management in Chapter 3. Lastly, based on the results of the collaborators responses analysis I constructed a revised list of CRFs that was used to guide me in conducting the intervention procedures in the second cycle of the current study.

4.2.1 PLANNING

To achieve the objective of the first cycle of this study, in the Planning phase I started the inquiry process by making contact with five FA professors in my institution to solicit their initial commitment to participate in this study. In this initial phase, I disclosed fully the research plan, objectives, and procedures as well as the general expectation of this study as written in the first three chapters in this study. The full disclosure of all research aspects to the collaborators was crucial for ensuring a successful implementation of the study plan. This is because fully informed participants take ownership of the research process and, to some extent, its results by contributing wholeheartedly to the effectiveness of the process (Flory & Emanuel, 2004).

I included five tenured professors who have at least six years of experience in teaching the FA courses as the collaborators in this study. These instructors provided their initial commitment to participate in this study and their professional history qualified them to be participants of the current study. In terms of demographic

characteristics, the collaborators represented a relatively balanced composition of gender and seniority, with two female and three below 40 (see Table 3.2 in Chapter 3).

In collecting the data from the current study's participants/collaborators, I used email exchanges to conduct semi-structured interviews in the first cycle of the study. Such a data collection tool was especially useful to overcome the geographical barrier between I, as the main researcher who currently resides in the US, and the collaborators of the study who live in Indonesia. It significantly reduces travel cost and time in scheduling and implementing the investigation and intervention plan, hence increasing the feasibility of the study.

The asynchronous characteristic of email is especially valuable for the current study, since this feature gives the participants more flexibility, by giving the participants time to reflect on their responses, and control over their level of participation (Gibson, 2014; Fritz & Vandermause, 2017). This higher control and flexibility that the asynchronous email offers to the research participants means a higher level of ethical research process since it promotes the participants' wellbeing. More importantly, the advantage of the email method was that I can expect honest and sincere responses to the interview questionnaires from the collaborators since they have more control of their participation level. The responses that reflect the true opinions of the participants were very important to produce unbiased research results, therefore avoiding the Hawthorne effects (Berthelot et al., 2019; Sedgwick & Greenwood, 2015)

4.2.2 ACTING AND OBSERVING/MEASURING

In the acting phase, I conducted a series of semi-structured interviews with five faculty members who are currently teaching different levels of FA courses, i.e.

Introductory, Intermediate, and Advanced level. The interview was conducted by sending the questionnaire (see Figure 4.1) to each collaborator in a private setting of email communication. This one-on-one email communication setting is administered to ensure the maximum privacy of the collaborators so that they could make honest and critical assessments to the previous education reform projects in our institution. The political environment at the time of the study, unfortunately, did not facilitate a sufficient level of freedom of expression to the participants in making critical assessments to the reform initiatives, as many of them originate from the national education authority. This less than ideal situation made it imperative for me to make the data sources confidential, therefore protecting the collaborators from negative ramifications that may affect their careers as academics.

Accounting Education Reforms Design Questionnaire

Thank you for agreeing to participate in this interview. Please answer the following questions as specific and detailed as possible. Your answers will help me provide better design in proposing an accounting education reform. Please note that your responses will be kept confidential.

1. Please name at least five (5) of accounting education reform proposals/plans/implementation you have been encountering in the current institution and provide information regarding the status of implementation of the reform project.

2. For each of the education reforms you mentioned above,

   a. What is your level of involvement? (please choose one of the following positions)

i. As the coordinator/top administrator

ii. As the ad-hoc committee member

iii. None of the above (as the implementer)

b. What is your level of support?

1. Strongly Unsupportive
2. Unsupportive
3. Neutral
4. Supportive
5. Strongly Supportive

c. Please elaborate on your answer above (e.g. what are the factors that influenced your view?).

3. For each of the education reforms you mentioned above, please provide your qualitative assessment of the adequacy and quality of each component below:

a. Persuasion, e.g. rationales, vision and strategy, sense of urgency, etc.

b. Project Plan, i.e. the fixed timeline

c. Avenue for involvement, e.g. open hearing, group discussion, etc.

d. Support from top administrators, i.e. sufficient resources allocation

4. From your experience with the previous accounting education reforms, what are your suggestions for better reform design? Please elaborate.

Thank you very much for your time in answering the questions.

Figure 4.1 General Attitude on Past Accounting Education Reforms Questionnaire

Upon receiving the questionnaire responses from the collaborators, in the observing phase I measured their assessment on the past accounting education reform projects, both quantitatively and qualitatively. Table 4.1 summarizes the collaborators' responses to my first cycle questionnaire. In total there were 13 reforms reported by the collaborators based on their recollection during their tenure in our current higher education institution. There were some reform projects that were independently assessed by two or more collaborators. I considered these overlapped assessments as a valuable opportunity for this study to see independent views from different collaborators on the same reform project.

In table 4.1, each reported education reform project is described with respect to the year in which it is implemented, the source of initiative, the aspect of emphasis, and the status of implementation. The column "Year" is included in the table to provide the sense of chronology that may be useful for their own evaluation. I originally did not request the collaborators to specify the year of the reform project in the questionnaire, but some of them were quite meticulous in providing some additional information even though they were not required/being asked. Some collaborators in providing the responses did not supplement the reform projects with the year of the reform proposal/implementation; however with clarification I was able to obtain such information.

Table 4.1 Summary of the Questionnaire Responses

No	Year	Source of Initiative	Aspect	Name	Status of Implementation	Professors' Involvement*/ Level of Support**				
						A	B	C	D	E
1	2007	Individual(s) initiative	Curriculum /Content	Industry - Accounting Education partnership	Implemented for about 1 year since its conception	i/5	iii/5			
2	2010	National Education Authority	Curriculum /Content	SME specialization	Failed at planning stage	iii/1		iii/2		
3	2010	Individual(s) initiative	Curriculum /Content	Ethics Accounting Education	Failed at planning stage		iii/5			
4	2011	Individual(s) initiative	Instruction	Case Studies method of teaching	Failed at pilot stage				iii/5	
5	2012	National Education	Curriculum /Content	Sharia Accounting Specialization	Failed at planning stage	iii/1	ii/5	iii/1	iii/2	

No	Year	Source of Initiative	Aspect	Name	Status of Implementation	Professors' Involvement*/ Level of Support**				
						A	B	C	D	E
		Authority								
6	2012	Individual(s) initiative	Instruction	Blended Learning	Failed at planning stage				i/5	
7	2012	Accounting Professional Organization	Curriculum /Content	The required credit hours reduction from 160 hrs to 144 hrs	Successfully implemented and institutionalized		i/5			
8	2013	Accounting Professional Organization	Curriculum /Content	Accounting Standards conversion from US-GAAP to IFRS	Successfully implemented and institutionalized		i/5			
9	2014	University-wide policy	Instruction	Lesson Study Approach	Failed at implementation stage	iii/1		iii/2	iii/2	iii/3
10	2017	Individual(s)	Curriculum	CPA-exam preparation	Failed at planning stage					i/5

No	Year	Source of Initiative	Aspect	Name	Status of Implementation	Professors' Involvement*/ Level of Support**				
						A	B	C	D	E
		initiative	/Content	program						
11	2017	National Education Authority	Research	Student-Professor Collaborative Research	Moderately successful: implemented infrequently		ii/5	iii/4		ii/5
12	2017	Accounting Department	Curriculum /Content	Accounting Information System Specialization	Failed at planning stage			iii/1	iii/2	iii/3
13	2019	University-wide policy	Instruction	Project-based teaching	Failed at implementation stage	iii/2	iii/5			iii/2

Note:

*) i: As the coordinator/top administrator; ii: As the ad-hoc committee member; iii: None of the above (as the implementer)

**) 1: Strongly Unsupportive; 2: Unsupportive; 3: Neutral; 4: Supportive; 5: Strongly Supportive

The information on the source of initiative is included in the table to show where the idea of the reform project comes from. The reported reform projects were initiated by either individual instructor(s), or education institutions, which can be at the level of department/program, university, or national education authority. The information about the source of initiative can be used as an indicator whether such an initiative is a top-down or bottom-up type of education reform. It is important to note that the dichotomy of the top-down and bottom-up mechanism in the current research refers to the source of the idea, and not necessarily to the source of funds (some reform initiatives may come from the national education authority recommendation, but the source of funds come from our institution).

The emphasized aspect of each reform that the collaborators reported was mostly either on the content (curriculum) or instruction domain, with the exception of one project that emphasized the aspect of research. This information is particularly interesting since as professors in a higher education institution, the collaborators have the responsibility to conduct high quality research. The low number of reform projects in the research aspect may explain the current low quality of research activities in our institution. However this issue needs a separate and more careful inquiry, which is not part of this research.

The column of "Status of Execution" was originally meant to capture the binary status of the reform project execution, i.e. either successfully executed or failed to be executed. Such a binary status simplified the observation and assessment of the reform implementation. It is also justified by the scope delimitation of the current study which focuses on the practical aspect rather than the substantial aspect, therefore avoiding any

complication resulting from the competing value-laden criteria of educational outcomes (see the delimitation section). Upon receiving the responses from the collaborators, however, I decided to modify this aspect and took advantage of the collaborators' rich information regarding the reported reform project dynamics.

The whole process of an education reform project can be very nuanced and such a binary status may not capture the complexity of the reform projects' execution. For example, the reform initiative of "Industry - Accounting Education partnership" in which Professor A was heavily involved, cannot be labeled as either a completely successful or failure project execution, since doing so would lead to the omission of significant information related to the initiative. As he writes in his commentary:

> I am proud to be the main architect of this initiative because it has an objective in preparing our students to develop skills that are relevant to their future careers. We surveyed more than one hundred employers in this country to obtain information regarding the list of skills that are required by industries. In the final stage we invited some of them to our campus to give lectures to our faculty and students. This initiative was also a great opportunity for our institution to continuously learn to increase the relevance of our education service. This project was meant to be conducted periodically, preferably annually. Unfortunately we were only able to execute it one time. The lack of support, and more specifically, lack of continuous funding from the top decision makers in this institution, prevents us from implementing the second round of this initiative. Another important factor is the low morale of the implementers due to exhaustion of the long project process. In hindsight, I should have been more appreciative and taken

the time together with them to have self-evaluation and reflection, instead of rushing to formulate a new plan for the second round implementation.

Professor B's favorable review of the project, despite its failure, seems to corroborate Professor A's assessment. Table 4.1 shows Professor B's high valuation of the project. She applauded the persuasion and the avenue for involvement mechanisms that the project committee used that were well planned and organized and they successfully convinced the faculty members to support the idea of the reform.

Professor A, however, gives very low support to other reform projects that he reported. These other four reform projects were all top-down types of reforms, and were given either the score of one or two out of five. In the case of the Small and Medium Enterprise accounting specialization initiative, for example, he pointed out the lack of clear rationales. He harshly labels it as merely a "political trend" which was derived from governmental macroeconomic programs but had no relevance to our program vision and mission.

Professor B responses, on the other hand, showed that she strongly supported all the reform projects that she reported. In fact, among the collaborators in this study, Professor B gave the highest level of support on average to her reported reform initiatives. In total, she reported seven reform projects, three of which were categorized as successfully executed, and four of them were the projects in which she took the leadership role. Despite giving her full support, she also made some critical assessments to some of these projects.

"I was very enthusiastic when I was appointed as one of the ad hoc committee members to implement the reform of establishing Sharia Accounting specialization in our

program. Unfortunately, the initiative failed to be executed because it did not have sufficient support from the majority of faculty members. We, the committee members, were unable to build a strong coalition from the future implementers, mainly due to our inability to formulate it as an academic project, and not a sectarian religious issue".

Professor C's overall responses indicated his lack of enthusiasm to most of the projects that he reported. One exception is the "Student-Professor Collaborative Research" initiative, in which he rated four out of five. In all those initiatives he reported, he did not hold any leadership role. He provided interesting comments related to the reform effort to establish the Accounting Information System (AIS) specialization.

"Accounting Information System is an important subject since it provides highly relevant skills to our students in the age of information technology. So as one of the instructors in this subject, I and my colleagues were very excited when I first heard that our business school was considering opening AIS specialization. However, our excitement soon turned into disappointment after we found out that the school's Dean did not involve us in formulating the concept of this project. Instead, he used "technology experts" from the Informatics Engineering program as the source of advice. Long story short, the initiative was canceled without any official explanation. I believe it is because of many complaints from us regarding, among other things, the incompatibility and irrelevancy of the academic contents of the reform project with the accounting concepts".

Professor D had mixed responses to the initiatives she reported. Two of them had her full support, albeit failed to be executed, while the other three received the score of

two from her. She was the person behind the initiative of "Blended Learning" which did not make it into the execution stage.

"Upon my return from finishing my master degree abroad, I introduced an instructional reform initiative, i.e. Blended Learning type of instruction. The instructional approach was so popular in Australia and other western countries, and I believe we can benefit from this approach as well. I was able to convince my fellow instructors regarding this initiative. However, this initiative was not executed because there is no commitment and support from the top administrators in our institution. They said we do not have enough budget and sufficient infrastructure to implement such a project".

Similar to Professor D, Professor E also had two reform initiatives that he fully supported, and none of them were executed due to various reasons. He was a member of the committee for the implementation of these two failed initiatives.

> We have around thirty faculty members in our program, however only two of them have accountant certification. I am one of these two accounting professors who hold a CPA designation in our institution, with the other one approaching the age of retirement. No wonder that our program is not in the top 10 business schools in the country. That is why I initiated a CPA preparation program to help my fellow instructors and final-year students prepare for national CPA examinations. However, this initiative did not materialize because of low enrollment and literally none of the faculty members were interested. One of the professors said to me that he was too busy to learn new materials to pass the CPA exams which are extremely difficult.

In total the collaborators report 13 past reform initiatives that they have encountered in the past. Out of 13 past reform initiatives reported by the collaborators, four of them can be categorized as successfully executed. These four successful projects showed a relatively similar pattern of support level, i.e. they were given strong positive sentiments by the collaborators. Further verification also confirmed the general positive attitude from the faculty members toward these successful initiatives. This evidence strongly indicated the importance of implementers' support in order to make a reform initiative successful.

On the other hand, if we look at all the reform initiatives that have a high level of support from the collaborators and general faculty members, not all of them enjoyed the successful execution status. This fact provides additional empirical evidence that the high support from the implementers serves as a necessary condition but not a sufficient condition (Weiner, 2009). There appears to be other required factors that an initiative must satisfy to successfully pass into the execution stage in addition to the strong support from the implementers, such as the availability of funding and other resources.

4.2.3 REFLECTING

By comparing and fitting the empirical data of the collaborators' responses with the existing models identified in the literature, I am able to obtain the recommended mechanisms/procedures that can be specifically applied in the current study, i.e. transforming the collaborators mindset to become change agents and advocates of the FA reform initiative. In the reflecting phase, this list of effective reform mechanisms constructed from previous literature was the subject to evaluations and revisions based on my collaborators' responses. In the end of this phase and the first cycle as a whole, I

expected a revised list of CRFs to be used effectively to achieve the objective of the next cycle of study.

Professor A's comment on his "Industry - Accounting Education Partnership" initiative is very interesting and relevant to the current study since they share some similarities, e.g. both are bottom-up reforms and have multi stages execution. Therefore, the current study can use both success and failure aspects of this initiative as a valuable lesson on how to formulate an effective reform plan in our specific environment. As Professor B testified about this project, the ability of the committee in persuading and involving the faculty members in constructing the implementation strategy contributed significantly to the successful execution in the first round of the reform project. Therefore, the persuasion mechanism was incorporated as one of the items in the CRFs list.

This initiative also provided lessons of several factors that hinder the complete success of the initiative. In his reflection, Professor A commented on the failed execution of the second round of his initiative. He indicated that he should have taken a pause after a successful first round execution of the project, especially to appreciate the implementers and supporters, as well as to recharge their morale so as to improve the implementation of the second round project. In previous literature, this type of activity is called celebrating the small victory (Kotter, 1998). In the original CRFs list, I did not make it as a separate category and it was part of another item (see Chapter 3). However, Professor A's experience above taught me to take this factor seriously; therefore it was explicitly incorporated in the revised CRFs list.

Another important lesson was that a high cost reform initiative may have a high probability of failing, especially for a bottom up type of reform project such as the one that Professor A initiated. The ability to secure sufficient funds/financial resources for a high cost reform project was a significant factor that determined its effectiveness. As described by Professor A, the lack of funding from our institution contributed to his failure to execute the second round of his initiative. Fortunately for the current study, this factor was not very crucial since it basically required a minimum amount of money to implement. The current study can be categorized as a low cost project, since its process only requires relatively minimum financial resources.

Professor B provided a very interesting comment regarding the Sharia Accounting initiative in which she was part of the leadership. She brought up the aspect of political and cultural dynamic in a reform initiative context. The reform committees' failure to take these aspects seriously, as she suggested, contributed to the failure of the project. Previous literatures discuss this issue as one of the important factors that needs to be incorporated into consideration to ensure the successful implementation (e.g. Cohen and Mehta 2017; Fernandez and Rainey 2017; Kotter 2012; Ruijer et al. 2016). This aspect was not originally included in the proposed framework that I constructed, since I overestimated my fellow professors' rationality in making "objective" judgment without being contaminated by political and emotional aspects. Learning from Professor B's experience, I realized that this factor needed to be taken into account carefully, therefore, I revised the original CRFs by explicitly adding this factor to the list.

Professor C's comment on the SIA reform initiative reminded us how important it is for the reform committee to involve the future implementers in the process. In this

case, as Professor C testifies, the exclusion of him and his colleagues who have been teaching the SIA courses for years, from the construction of the SIA specialization structure by the Dean of our program, directly or indirectly, created general inertia among the faculty members to the initiative. The resistance, as he claimed, contributed to the failure of the reform execution. This empirical evidence on the importance of involving the future reform implementers to the success of the initiative execution justified the inclusion of the factor in the original CRFs list.

Professor D's failure in her effort to initiate an instructional method reform in our institution also brings an important lesson to the current study. According to her, this initiative failed mainly due to the unavailability of the required infrastructure. More specifically, the top decision makers in our institution refused to commit a relatively substantial budget for the successful execution of the proposed initiative. The lack of support from the leaders/decision makers of our institution to Professor D's initiative was similar to the hurdle faced by Professor A's second round project implementation as mentioned above. The full support of the leaders and the ability to secure resources are very crucial to ensure the successful execution of a reform initiative. The leaders' support and resources obviously are not necessarily in the form of financial resources. In fact, for a low-cost type of reforms, the financial resources can be relatively irrelevant. The aspect of leaders' support in providing resources in the reform initiative is very important guidance for this study; therefore it is included in the original list of CRFs.

Professor E's difficulty in transforming the accounting professors' mindset about the importance of obtaining professional certification was the main factor of his failure to execute his initiative of CPA preparation program. The faculty members did not have a

willingness to invest their time and energy to increase their professional capacity. More importantly, as the initiator of the project, Professor E did not try to use any mechanisms that could convince the accounting faculty on the significance of a CPA certification. The important lesson that can be learned from Professor E's experience is that it is crucial to use available avenues in convincing the organization members to get onboard with the initiative. Therefore, in the current study I included such a factor in the CRFs list.

Critical Relevant Factors
1. Initial Persuasion to Join the Change Initiative
2. Developing Reform Project Planning
3. Providing Avenues for Involvement (Bottom-Up Mechanism)
4. Support from the Top Administrators/Change Initiator(s)
5. Existing Transformative Change Mindset
6. Celebrate Small Victories
7. Forming a Strong Coalition

Figure 4.2 Revised CRFs list

The empirical evidence that I obtained from the collaborators' responses above confirm the importance of the factors in the CRFs list in formulating effective reform initiatives. In constructing the list, I was informed by numerous previous studies in the field of change management as well as the live experience that I have when dealing with

numerous education reform initiatives in my institution (Cohen & Mehta, 2017; Fernandez & Rainey, 2017; Kotter, 2012). The responses from the collaborators also brought up two additional important factors that are not in the original list, therefore I incorporated them into the revised list to complete the objective of the first cycle of the current study (see Figure 4.2). The revised CRFs list produced in the investigation procedure in the first cycle guided me in the implementation of an effective intervention study in the next cycle of the current research.

4.3. GENERAL FINDINGS OF CYCLE 2: INTERVENTION

In the second cycle of the study I applied the specific mechanisms/procedures as suggested by the first cycle investigation's findings to navigate the intervention procedure of the study, i.e. proposing a draft of the first courses in FA content sequence to the collaborators. The ultimate objective of this cycle was to successfully convince the collaborators as the future implementers of the initiative to get onboard, and take the ownership of the initiative. In order to achieve the objective, I divided the process of the intervention procedures into four phases: planning, acting, observing, and reflecting.

4.3.1 PLANNING

In this stage, I prepared the draft of the first courses in FA content sequence that I used as part of the study intervention to my collaborators. I also solicited a further commitment from them to participate in this study until the final stage of the cycle. Obviously, as we entered the Acting phase of the second cycle, which is the implementation of the recommended procedures for an effective reform project produced in the first cycle, I expected to have a more transformative type of commitment, instead of merely a transactional one (Bass & Riggio, 2006).

The practical rationale for conducting the intervention procedure in this cycle is derived from the accounting stakeholders' demand to make the contents of accounting courses in general, and FA courses in particular, to be more user-oriented (see Chapter 3). On the other hand, the theoretical rationale of the current initiative is justified by the widely accepted theories in the domains of Cognitive Constructivism and Instructional Design, more specifically the Elaboration Theory of Instruction (ETI) which demands the instructors to organize and sequence the course contents in such a way that scaffold learners to better comprehend and retain the FA concepts (Honebein & Reigeluth, 2020; Reigeluth & Darwazeh, 1982; Van Patten et al., 1986).

Before I started the intervention of the reform initiative with the collaborators (see the Acting stage below), I needed to make sure that the procedures satisfied seven factors of the CRFs list produced from the investigation process in the first cycle above. The first factor was the initial persuasion to join the initiative. In making the case for the current initiative to the collaborators, I elaborated the practical and theoretical rationales as written in Chapter 2. The collaborators received the written rationales for the initiative two weeks before the intervention procedure started so that they had enough time to learn and understand the importance of the current initiative. Providing the collaborators with the rationales of the current initiative helped me convince them to get onboard with the project, and agree to participate in the research process.

In the written document, I also explained in detail the mechanisms of the current project to the collaborators. This explanation was important, as recommended by the second factor in the CRFs list, to give the collaborators understanding about the steps to achieve the objective. More importantly, this procedure had a practical purpose to ensure

that all collaborators' schedules were not in conflict with the intervention process. As professors in a higher education institution, the collaborators were already busy with their basic duties of teaching and researching. Giving them the detailed plan of the research procedure helped them plan ahead in adjusting their schedule, therefore ensuring the effectiveness of the initiative.

The third factor in the list was providing avenues for involvement for the implementers, which is the hallmark of a bottom up type of reform project. In satisfying this factor, I planned to have a three week discussion on improving the draft of the new content sequence of the first courses in FA with the collaborators. The discussion activity can be seen as opening the access to them in formulating the initiative, therefore sharing the ownership of the initiative to them.

The fourth factor was providing support/resources by the leader of the project. In this case, I, as the leader/initiator of the reform project, had the responsibility to provide sufficient resources to the collaborators to facilitate a smooth implementation of the research procedures as planned. The type of resource in this specific initiative, fortunately, was not a financial one, since it is a low cost type of reform. Instead, in this particular project I supplied academic resources that were directly relevant with the topic of the current initiative. The full academic resources that I provided were listed in the Reference section of this document. As academics, the collaborators read and verified the academic literature themselves so that they could make an informed contribution to the current initiative.

The fifth factor of the CRFs list was the existing transformative/change mindsets on the part of the organization members. This is the least dynamic factor that makes it

rather irrelevant for a bottom-up initiative, like the current one. This kind of factor is so idiosyncratic in nature that the reform initiator may have a little influence, if any, to influence it unless some types of top down enforcements are used. In a higher education institution environment where the organization members are mostly highly rational individuals, obviously such a brute force will likely be contra-productive. These individuals have factored almost all relevant variables into their decision making with respect to external stimuli/changes. Therefore, such a relatively thorough cost-benefit calculation left only a little wiggle room for the reform initiator to affect the participants' attitude toward the reform initiative. This is the kind of problem faced by Professor D in his unsuccessful effort to introduce his initiative to the faculty members. The reform initiative was rejected from the very beginning because it is not feasible to them based on their cost-benefit calculation. This initiative, however, I would argue was not in the same category as that initiated by Professor D, since it had the direct intention to find a method to increase the quality of education service to the learners, which is also in their best interest as educators. Therefore, the transformative mindset, at a minimum, was not absent in this particular initiative, as evidenced by the collaborators' willingness to participate in the research process.

The sixth factor was celebrating a small victory. This was a newly added factor in the CRFs list based on the input by Professor A. Learning from Professor A's experience I realized that it is important to keep collaborators' morale high especially in a relatively long duration, multi-cycle project like the current one. To achieve this objective, I needed to break down the long process into smaller and achievable goals to avoid mental exhaustion and study attrition on the part of the collaborators. At the end of each cycle I

acknowledged the collaborators' major milestones achievement by appreciating their contribution to the current reform process and providing avenues for feedback to improve the initiative procedures.

The seventh factor was securing a powerful coalition by being consistent with prevailing values. This factor was inspired by Professor B and her team's experience in their unsuccessful quest in executing a reform initiative. As she alludes, the failure of the reform execution was due to her team's inadequate measures on the cultural and political aspects of it. Learning from the experience, in the current initiative I tried to be consistent with the prevailing norms in our institution by avoiding any ideological and religious aspect in the current project. Such sectarian divides are the main source of friction among groups of individuals with different dogmatic values and become obstacles in forming a strong coalition. Therefore, in this initiative I constructed a project that was purely rationalized by academic/scientific values. By focusing on the same value we hold as educators, which is promoting the quality of educational service in our institution, I avoided any potential friction among the collaborators.

All seven factors in the CRFs list above were used to guide the intervention mechanism in the current research to produce an effective reform initiative. Most of the factors were carefully applied in the planning stage to convince the collaborators to participate in the current study. The next phase of the current cycle, i.e. the Acting phase focused mainly on the factor of providing the avenues for involvement to stimulate collaborators' enthusiasm in contributing to the formulation of the revised ETI-based FA content sequence, and increase their commitment to apply the new method of instruction.

4.3.2 ACTING

In this phase, I applied the recommended reform procedures as listed in the CRFs list produced by the investigation process in the first cycle. This factor led me to arrange an academic discussion among the collaborators to assess, modify, and improve my proposed reform initiative of constructing ETI-based content sequence of the first courses in FA. Even though this discussion is the application of one single factor, i.e. providing avenues for involvement, the intervention process itself is possible due to the application of factors in the CRFs list as a whole. In this case, the collaborators may not agree to have a discussion in the first place, if they are not convinced by the initiative rationales, both academic and practical, that I presented in the previous stage. By using and applying the factors produced in the previous cycle, I expected to have a constructive collaboration process among the FA professors in developing the revised content sequence of the first courses in FA which represents the principles of ETI.

The first action that I implement in this phase was to send the collaborators, as a group, the proposed ETI-based content sequence of the first courses in FA (see Table 4.2 and 4.3). The first courses of FA in our institution consist of two courses: Introduction to Accounting I (IA-I) and Introduction to Accounting II (IA-II). Initially I was planning to focus on the single course of IA-I, just like the original study by (Albrecht & Sack, 2000), therefore limiting the context of the current study. However, considering the unique situation in our accounting program and the particularity of the course arrangement, I soon realized that these two courses are so closely integrated that it is virtually impossible to modify the content of IA-I without affecting that of the IA II.

Therefore, I modified the original plan by constructing FA content sequence for the two courses as the intervention of the second cycle.

Table 4.2 The Proposed ETI-based IA-I Content Sequence

Session	Topic
1	The Context of Accounting and overview of the course
2	Different types of entity and Its production cycle
3	FS of different types of entity
4	FS ratios
5	SIA - Cash and internal control
6	FS prep: Record general transaction – Accounting Equation (AE)
7	FS prep: Record adjustment transactions -AE
Mid Term Evaluation	
8	FS prep: Measure and record inventory cost flow - AE
9	FS prep: Inventory cycle in merchandise transaction-AE
10	FS prep: Receivable transaction-AE
11	FS prep: Account and note liabilities, adjustments-AE
12	FS prep: Ordinary share transaction-AE
13	FS prep: Bond investment-AE
14	FS prep: Capital expenditure, depreciation-AE
Final Term Evaluation	

Table 4.3 The Proposed ETI-based IA-II Content Sequence

Session	Topic
1	Refresher session and overview of the course
2	FS prep: Monthly adjustment transactions (depreciation) -Journal
3	FS prep: Monthly adjustment transactions (bank reconciliation) -Journal
4	FS prep: Inventory cost flow measurement- Journal
5	FS prep: Inventory cycle in merchandise transaction-AE
6	FS prep: Account receivable transaction-AE
7	FS prep: Note and Long term receivable transaction-AE
Mid Term Evaluation	
8	FS prep: Bond Investment-AE
9	FS prep: Stock Investment-AE
10	FS prep: Account and note liabilities-AE
11	FS prep: Long term (bond) liabilities-AE
12	FS prep: Ordinary share transaction-AE
13	FS prep: Ordinary share-related transaction-AE
14	Summary to connect all the materials together
Final Term Evaluation	

The table above represents my effort in sequencing the FA first courses' contents to closely represent the principles of the ETI as possible. The ETI prescribes that in order

to scaffold students to better retain and comprehend the FA materials, the instructors should present the content in a general to more detailed manner (Merrill et al., 1981). Applying this theory in sequencing the content of the first courses in FA results in a significantly different content sequence from that of the traditional one (please see Table 4.4 and 4.5 below).

Table 4.4 The Traditional IA-I Content Sequence

Session	Topic
1	Accounting Principles
2	Accounting Cycle: The Accounting Equation + Debits & Credits
3	Accrual Accounting and Adjusting Entries
4	Closing Entries and Financial Statements
5	Cash Flow Statement
6	Internal Controls
7	Sales & Accounts Receivable
Mid Term Evaluation	
8	Special Journals
9	Inventory & COGS
10	Operating Assets
11	Long Term Assets
12	Liabilities & Equity (Current and Contingent Liabilities)

13	Liabilities & Equity (Long-Term Liabilities)
14	Liabilities & Equity (Stockholders'Equity)
Final Term Evaluation	

Table 4.5 The Traditional IA-II Content Sequence

Session	Topic
1	Petty Cash and Bank Reconciliation
2	Income Statement
3	Balance Sheet and Cash Flows
4	Time Value of Money
5	Account and Note Receivables
6	Inventories
7	Property, Plant, and Equipment
Mid Term Evaluation	
8	Depreciation, Impairments, and Depletion
9	Intangible Assets
10	Short term Liabilities and Payroll
11	Equity and Retained Earning
12	Investment - Stock and Bond
13	Accounting for Manufacture Industries
14	Financial Statement Analysis

Final Term Evaluation

As can be seen above, in the traditional content sequence, the division of the lecture session is mainly based on the concept distinction that is assumed to be independent from one another. Using ETI-based content sequence, the lecture sessions are separated by their level of complexity, not by the concepts distinction. The traditional content sequence used by the accounting instructors of the first courses in FA, especially in our institution, is mainly influenced by the chapters' organization of the accounting textbooks. This arrangement does not reflect the good learning principles prescribed in ETI as it results in a fragmented discussion of the basic accounting concepts. The accounting textbooks are designed to discuss one specific topic in great detail in one chapter, and another topic in different chapters. Such an arrangement is suitable for book publishing affairs but not for education purposes since it results in disjointed lectures, therefore failing the learners to comprehensively understand the important concepts in basic FA courses.

The proposed ETI-based introductory-level FA courses' content sequence that I constructed is by no means a final product. From a substantial perspective, the document needs to be verified by a group of experts in the domain of FA in the specific context of our institution. Even though ETI provides guidance for me to start the course with the fundamental concepts, I may have different opinions with other accounting instructors as to which concepts represent the more basic concept compared to the other ones. Second, from the practical perspective, the proposed content sequence that I developed serves as the entrance point to the ultimate objective of this project, i.e. to convince the

collaborators as the future implementers of the reform to get onboard and take ownership of the current initiative.

Before I applied the intervention and observed the responses from the collaborators, I needed to conduct a pretest as a way to measure their initial attitude toward my proposed initiative. The pretest is also useful to shed light on the effectiveness of the intervention process in this study cycle, by comparing it with the posttest results at the end of the second cycle. The mechanism of both pretest and posttest is pretty straightforward. A simple questionnaire is sent out to the collaborators with a single question asking them to rate their commitment level in applying the proposed content sequence to their future classes. The following, Table 4.6 summarizes the collaborators commitment level in the beginning of the cycle (pretest score), which is rated from one as the least committed to five as the most committed.

Table 4.6 Pretest Score on Collaborators Level of Commitment

Q: If you were given the responsibility to teach either one of the first courses in FA, how likely are you to apply ETI-based content sequence in your class?	Level of Commitment	
Professor A	2	Unlikely
Professor B	4	Likely
Professor C	3	Undecided
Professor D	3	Undecided
Professor E	3	Undecided

4.3.3 OBSERVING/MEASURING

In this phase I recorded both quantitative and qualitative types of data to measure the level of my collaborators' enthusiasm and commitment to implement the ETI-based FA content sequence in their classrooms as the result of the study intervention in this cycle. The construct of the collaborators' enthusiasm level was proxied by their contributions and involvements in the process of the current study. I expected to have constructive discussions with the collaborators in developing and revising the proposed content sequence of the first courses in FA. It is important, however, to remind the readers that the current study's main focus is on the human aspects of the education reform process, i.e. to influence collaborators' enthusiasm and commitment, and not to establish the ultimate ideal of FA content sequence that can be applied in all contexts of the educational process.

Professor B was the first collaborator to provide a response to my proposed document. She started with encouraging words. "The new content sequence of the first courses in FA looks promising to me. My hope is this new method of instruction will help students to retain the concepts and theories in accounting". Then she continued with a note of caution, "if we want to apply this new content sequence, then we need to think about involving Professors of other domains, not only those in the FA domain. Because I think the change also affects, albeit indirectly, other domains such as Management Accounting, Tax Accounting, Auditing, and other branches of accounting".

Professor A, as the most senior accounting instructor in our institution and has been teaching the IA-I for the last decade, provided a more specific and somewhat critical response:

> I have read the rationale of the study that contains the discussion about the need to eliminate the procedures of 'debit-credit' in the first course in accounting. While I still have reservations whether that is the right way to introduce accounting to our first year students, the more surprising aspect for me is the inclusion of FA ratios topic in the beginning part of the course. Are you sure about this? This topic is normally taught in the advanced course. Your proposed content sequence seems to me as the antithesis to the simple to complex principle that you are advocating for.

This critical assessment from Professor A was immediately embraced by Professor B. She stated that for the first year of accounting students learning the journalizing procedure (debit-credit mechanism) is more suitable than the topic of FS ratio since the former is much simpler and easier than the latter, hence satisfying the main principle of ETI. Furthermore she mentions that mastering the basic accounting skill for new students is important since it will be used frequently in the subsequent accounting courses.

The push back from Professor A and B on my proposed idea of limiting, not eliminating completely, the topic of transaction journaling from the first courses in FA was something that I had expected, especially from senior accounting instructors such as Professor A and B. Such an idea, which is originally from (Albrecht & Sack, 2000), for some people can be seen as too radical and can change the direction of accounting education completely. Therefore, it was important for me to respond promptly to the objection.

Basically my response was the condensed version of the more detailed theoretical and practical rationales written in Chapter 3 that I sent to the collaborators in the planning phase of the current cycle. It is possible that these senior professors were still not convinced by it or simply missed reading that part. Nevertheless, I tried to reemphasize my point by responding that the conventional transaction journaling using debit-credit mechanism, while it is traditionally discussed in the early sessions of basic accounting course around the world, it is no longer seen as the correct way to introduce the concept of accounting (Albrecht & Sack, 2000; Vangermeersch, 1997).

Using the ETI principles, we need to provide epitome to the new learners to scaffold them in understanding the basic concepts of accounting. Debit-credit mechanism cannot be considered as the proper epitome, because it requires the learners to dive deep into the details of economic transactions without providing the big picture of accounting's basic objective, which is to construct Financial Statements. Therefore, I am one of those who advocate that the first courses in FA should emphasize the learning of FS as a whole, as it is a less technical concept while providing the overarching perspective that facilitates the comprehensive understanding of the fundamental accounting concepts.

Professor D soon joined the discussion and provided enthusiastic support to my idea. He emphasized the importance of scaffolding new accounting students in obtaining a strong understanding of FS comprehensively, rather than the fragmented concept of traditional transaction journaling. As an instructor of the course of Financial Statements Analysis, an advanced course in FA that focuses on FS ratios and their applications to assess companies' performances, Professor D testified the advantage of my proposed content sequence over the traditional one.

> I always have a hard time introducing the concept of FS ratios because my students in the FS Analysis course, even in their third year, have not grasped the concept of FS comprehensively. I believe the new proposed content sequence will greatly help the students in my class. After reading the ETI extensively, I believe it is high time for IA-I instructors to move away from overemphasizing the debit-credit skills. I think we have courses in the Intermediate level that will provide the students the opportunity to develop and master such technical skills.

Professor D's testimony above was apparently convincing enough for Professor A and B to accept the need to deemphasize the transaction journaling skills in the course of IA-I, and to provide a more comprehensive FS concept in the new content sequence. Professor B gave an explicit affirmative response by stating that she now supports the new content arrangement because it will help Professor D and his students in achieving the course's goals.

Professor D went further suggesting that discussing the most important concept in FA domain like FS in one session will not be enough. He argued that even for a surface-level discussion of the topic we need at least three sessions. Professor E supported Professor D's idea and asserted that using three sessions is not an exaggeration if we truly adopt the principle of the new accounting movement, which is to move away from the preparer approach into more of a user approach. Discussing FS in general and FS ratio in particular, is the representation of understanding how the accounting information works from the user perspective.

Considering these penetrating inputs, we agreed to make changes to the proposed content sequence by adding one more session to the content of FS ratio and one specific

session on how to use the financial ratios information for assessing the company's financial performance. These changes are needed to provide scaffolding to the learners in comprehending a comprehensive concept of FS which has been lacking in the traditional content sequence, as testified by Professor D.

Professor C in his first response highlighted the problematic ordering related to the session 5 content, which is "SIA-Cash and internal control." As the instructor of the SIA course for the last five years he argues the importance of the accounting system concept as the underlying schema to understand other sub elements of a system, including FS. Therefore, it should be placed higher in the sequence, or at least it should be discussed before the lectures on Financial Statements. By moving the topic of SIA up to the third session, right before the FS sessions, he argued, the new arrangement will be consistent with the principle of the ETI, which is to put the more basic and underlying content before the more detailed and/or technical ones. Other collaborators categorically agreed with Professor C's argument, therefore, the content of internal control i]was moved to session 3 in the revised version of the content sequence.

Session 8 of the revised content sequence, which is the first session after the midterm examination or the second half of the semester, marks the start of the series of discussions on the FS preparation topic. As the label suggests, these discussions will provide knowledge of how to be the FS preparer to the learners, which is the main objective of the traditional FA course. Using ETI perspective, however, the proposed content sequence has a significantly different outlook than that of the traditional one.

Professor D and E were especially instrumental in the discussion on revising the proposed content sequence from this point on. Their penetrating ideas indicate the mix of

their high proficiency in the principles of ETI as the philosophical basis of the current reform project and their extensive knowledge of FA concepts as a whole. Professor E proposed combining session 6 and 7 from the original content sequence into one session. His argument stems from the ETI principle, the general and adjustment transaction should be considered as one continuing accounting process, rather than a separate one. Both general and adjustment accounting transactions were considered as basic level transactions that serve as the foundation to master the skills of transaction recording in many different types of entities.

In addition to suggesting combining the general and adjustment transaction, Professor E also proposed avoiding the separate discussion on the merchandise and manufacture entity transactions. He argued that in the spirit of comprehensiveness, as advocated by ETI, the learners of the basic courses should see these two types of entities as a nuance rather than categorical. As a consequence, we agreed to revise the session 9 discussion topic of the original content sequence into more comprehensive learning that discusses the inventory cycle in both types of business in session 10 of the revised content sequence.

Similar to Professor E's argument of comprehensive approach, Professor D also criticized my proposed content sequence for still using "a different version of fragmental approach". She pointed out this problematic fragmentation in sessions 10 and 11, and in session 13 and 14. She specifically argued that the separation of content is based on the type of account material, instead of the level of complexity as the ETI advocates. She further suggested that combining the discussion on receivable and liabilities transactions

is more beneficial for learners because they can see two opposite types of transaction in the Accounting Equation.

Upon assessing Professor D's argument, other instructors and I unanimously agreed with her suggestion. Personally I think her insightful argument broadened my view on how to consistently apply the ETI principle on the content sequence of the first courses in FA. Her idea of combining the receivable and liabilities transactions, for example, had never occurred to me since I have been taught from the beginning these two concepts are discussed separately, just like organized in the textbooks. Now, using ETI principle I believe such content sequencing and organizing is better in scaffolding the learners to build a basic schema for analyzing a complex transaction.

Related to the final session of the course, Professor E suggested a session should be dedicated to summarizing the contents and assisting the learners to connect all materials discussed to obtain a comprehensive understanding of the basic FA concepts. The summary is also consistent with one of ETI principles (Reigeluth, 1999b; Reigeluth & Carr-Chellman, 2009; Reigeluth & Darwazeh, 1982).

After having a constructive and effective discussion in developing the content sequence for the IA I course, we moved on to the second round discussion to revise my proposed content sequence for IA II, the second half of the first-courses in FA. Overall, the discussion on this subject was not as intensive as that in the previous round. In fact it was rather short and took less than one week. Professor D and E, once again, contributed their analytical skills significantly in revising the content sequence for this course. Professor B and C were also instrumental in giving feedback to ensure the scope of the contents do not change from our curriculum guidance. The discussion was relatively

smooth mainly because the collaborators gained a significant understanding and agreement on the basic structure of ETI-based content sequence thanks to our first round constructive discussion.

The final product of the intervention procedure in the second cycle of the study, i.e. the revised ETI-based content sequence of the first courses in FA, can be seen in the Table 4.7 and 4.8 below. The revised content sequence of both IA-I and IA-II courses represents the collaborative efforts in constructing a new approach to teaching basic FA courses in our institution that emphasizes on the user perspective and is guided by a sound instructional theory.

Table 4.7 The Revised ETI-based IA-I Content Sequence

Session	Topic
1	The Context of Accounting and overview of the course
2	Different types of entity and Its production cycle
3	AIS - Cash and internal control
4	FS of different types of entity
5	FS ratios I
6	FS ratios II
7	FS - Business Performance: horizontal and vertical ratios
Mid Term Evaluation	
8	FS prep: general and adjustment transactions -AE
9	FS prep: measure and record inventory cost flow-AE

10	FS prep: inventory cycle in merchandise and manufacture transaction-AE
11	FS prep: Accounts receivable and liabilities transaction-AE
12	FS prep: Note/long term (bond) receivables and liabilities-AE
13	FS prep: Basic corporate stock transaction-AE
14	Summary to connect all the materials together
Final Term Evaluation	

Table 4.8 The Revised ETI-based IA-II Content Sequence

Session	**Topic**
1	Refresher session and overview of the course
2	FS prep: Monthly adjustment transactions I -Journal
3	FS prep: Monthly adjustment transactions II -Journal
4	FS prep: Inventory cost flow measurement- Journal
5	FS prep: Inventory cycle in merchandise and manufacture transaction I-Journal
6	FS prep: Inventory cycle in merchandise and manufacture transaction II-Journal
7	FS prep: Accounts receivable and liabilities transaction I-Journal
Mid Term Evaluation	
8	FS prep: Accounts receivable and liabilities transaction II-Journal
9	FS prep: Note/long term (bond) receivables and liabilities I-Journal

10	FS prep: Note/long term (bond) receivables and liabilities II-Journal
11	FS prep: Note/long term (bond) receivables and liabilities III-Journal
12	FS prep: Corporate stock transaction I-Journal
13	FS prep: Corporate stock transaction II-Journal
14	Summary to connect all the materials together
Final Term Evaluation	

4.3.4 REFLECTING

After an intense and constructive discussion that lasted almost one month, all the collaborators explicitly stated their agreement and satisfaction with the results. As we wrapped up the intervention process, in Table 4.9 I summarized quantitatively each of the collaborators' contributions in this cycle.

Table 4.9 Quantitative Measures of Collaborators' Contributions

Collaborators	**Number of Responses**	**Average Words per Response**
Professor A	3	62
Professor B	17	129
Professor C	9	83
Professor D	12	112
Professor E	7	96

The quantitative measures which are indicated by the number of words and frequency of the responses show that Professor B was the top contributor to the study

discussion. In total she made 17 responses during the discussion on revising the proposed content sequence, and an average of 129 words per response. Professor D was the second highest contributor with 12 responses, and each of her responses contained 112 words on average. Professor C contributed more responses than Professor E (9 vs. 7), however on average Professor E had longer responses than Professor C does (96 words vs. 83 words). Professor A had significantly lower responses, in terms of both frequency and number of words, than any other collaborators in the discussion with 3 responses, and 62 words on average.

The quantitative measures above, needless to say, only give us a partial view about the whole process of the current study. They need to be used tocomplement thr qualitative data described throughout this chapter to provide us with a full story of each collaborator's level of contribution in the current project. As the label suggests, qualitative measures are inherently subjective. This property may be seen as a liability especially when compared to the more objective nature of quantitative measures due to its susceptibility to the researchers' bias. However, by describing in detail the background process of the study, as elaborated in the acting phase above, the perceived bias/subjectivity can be reduced significantly since such transparency enables the readers to make their own assessment on the research process impartiality.

Overall, I was very satisfied with the level of enthusiasm shown by the collaborators' participation in the discussion. They showed high intensity of collaborative spirit that was beyond my initial expectation. Professor D and E were especially superb in providing penetrating ideas that contributed significantly in revising the original content sequence. Professor B and C on the other hand were especially instrumental in providing

a sort of 'checks and balances' to some innovative ideas from their younger colleagues in applying ETI principles to FA content sequence to ensure the changes are within scope regulated by our institution.

Professor A was very quiet especially after the first two weeks of the second cycle discussion, with only six responses in total. When I followed up with him privately regarding his relatively low participation in the discussion, he mentioned that he was still following the discussion closely despite being not very active. He explained that he was just not sure whether he could contribute effectively to the project, because this specific domain of education reform is foreign to him. He humbly put a note that in this forum he will be more of a learner than contributor and will accept the group decision because he believes this is the best for the students.

The final observation of the current study was administering a posttest and closing comments from the collaborators regarding the overall investigation and intervention process in the current study. The posttest, like the pretest, posed the simple question to the collaborators to rate their level of commitments in applying the revised content sequence in their future classes. Table 4.10 below compares the pretest and post test results from the collaborators responses.

Table 4.10 Pretest and Posttest Score

Q: If you were given the responsibility to teach either one of the first courses in FA, how likely are you to apply ETI-based content sequence in your class?	Level of Commitment (Pretest)	Level of Commitment (Posttest)

Professor A	2	Unlikely	4	Likely
Professor B	4	Likely	5	Very Likely
Professor C	3	Undecided	5	Very Likely
Professor D	3	Undecided	5	Very Likely
Professor E	3	Undecided	5	Very Likely

In his closing comment, Professor A gave a succinct response that despite the overwhelming new knowledge that he tried to digest from the discussion, he is committed to the application of the revised content sequence constructed by our group as long as a more detailed and formal document, i.e. the syllabus and lesson plan, is produced to provide more specific guidance to the instructor of these courses.

Professor B also provided a similar concern with Professor A related to the formulation of the syllabus and lesson plan. Additionally, while she appreciated and congratulated the hard work in collectively developing the revised FA content sequence, she noted that the document produced needs to be formally verified by the educational authority in our institution. As a professor who has extensive professional experience, especially in the administrative area in both local and national level, her emphasis on the formal aspect of the current study result was understandable. She also suggested broader communication with instructors in other areas of accounting to ensure the coordinated execution of the current reform initiative. Lastly, Professor B reiterated her commitment to apply the ETI-based content sequence of the first courses in FA as she learned from the discussion that it has many advantages, especially to the novice learners.

Professor C also committed to apply the product of the current project if he were given the responsibility to teach the first courses in FA in the future. He made an important suggestion to review periodically the implementation of the ETI-based FA content sequence to ensure the synchronization with the most current FA development.

In addition to indicating her commitment in applying the content sequence, Professor D also mentioned that participating in the current study enabled her to gain a lot of new information, especially related to the ETI and its principle of good learning. As one of senior instructors in the Auditing domain, she plans to apply the ETI-based content sequence reform on her other area of expertise as her next project.

Professor E who showed significant contribution during the study also provided his commitment to support the application of the project reform. He provided a suggestion for the next stage of study, which is the evaluation of the proposed reform execution. In this case, he suggested partial implementation or a pilot project to enable a "quasi-experiment" study. This kind of study enables us to evaluate the effectiveness of the ETI-based content sequence by using counterfactual data.

The collaborators' final comments and, especially post test results, at the end of the second cycle indicate a significant improvement of their commitment to apply the ETI-based FA content sequence in their future classes. Therefore, it can be concluded that the intervention procedure in the second cycle of the study, which was guided by the results of the previous investigation cycle, was effective in improving the collaborators' level of commitment to become change agents and advocates to the current initiative.

4.4 SUMMARY

As a social constructivist and fallibilist, I am in the position that there is no such thing as absolute/ultimate ideal of educational structures, such as curriculum and methods of instruction, even in the specific context of our Accounting Program institution. While an approximate optimum form of FA curriculum and instruction can be obtained for a limited spatial and temporal dimension in a constantly changing accounting environment, such an agreed-upon artifact, from the current study's perspective, merely serves as an indicator of a more fundamental process of social collaborative attempt to adjust the FA education structures to the external stimuli/demands. As a consequence, the current study focuses on the human, i.e. the faculty members, behavior aspect in the change efforts process. Particularly the current study emphasizes the pursuit of an optimum strategy to successfully stimulate a transformative reform mindset on the part of the accounting instructors in our institution, as the reform implementers. The main practical implication of achieving such an optimum strategy is that it will provide an ideal template for future reform plans in the ever-changing accounting world.

Such a claim on the ideal mechanism for introducing an education reform project in our institution is justified by the results produced by the series of investigation and intervention processes implemented in the current study. By the end of the study, four participants reported the level of fully committed, and one participant reported one level below, to apply the revised ETI-based content sequence of the first courses in FA in their future classes. These self-reported high commitments represent a significant improvement compared to those reported in the beginning of the study.

Further analysis of the empirical data indicates that the collaborators' commitment level correlates positively with their level of contribution to the current study project as measured by both quantitative and qualitative indicators (see Table 4.10). Such a high positive correlation can be attributed to the provision of the avenues for collaborators' involvement to contribute their ideas in modifying and improving the existing initiative. Opening the access to the reform initiative formulation provides the mechanism for sharing the ownership of the reform initiative with the collaborators, therefore is the most likely causal explanation for the collaborators high commitment in applying and advocating the proposed reform to their future classes.

CHAPTER 5

IMPLICATIONS AND CONCLUSION

As an accounting professor who has been teaching subjects in the domain of Financial Accounting (FA) for more than 10 years, I have observed the worrying phenomenon of reform stagnation in my accounting education program. Our institution's graduate tracer study indicates the presence of the skills gap problem as our graduates' skills do not reflect the contextual needs of the local and regional users/employers (Fikri et al., 2017). In addition to this "external" problem, the advanced level FA course instructors report the problem of the senior students' low competency level in comprehending and retaining some basic concepts in accounting that they should have mastered in introductory level courses.

There have been several reform efforts in my institution, mostly designed in a top-down mechanism, both in the aspect of curriculum and instruction aimed to improve the quality of education service in our institution in general. Unfortunately, most of them failed to be executed and some of them did not even make it to the planning stage. The consistent failure of executing accounting education reforms in our institution caused frustration to some decision makers and reform committee members. The accounting instructors in too many instances become the scapegoats for this failure because of their reluctance, or even resistance, to many reform initiatives.

The comprehensive approach used in the literature that recognizes group members' behavior and motivation with respect to education reform as dependent

variables, subject to external stimuli (e.g. Alanoglu et al., 2022; Ford & Ford, 2010; Kumashiro, 2015), inspires me to apply such a strategy to solve the current reform stagnation problem in my own institution. The strategy is especially suitable to the specific context of the current research considering the characteristics of the subjects of the study, a group of accounting professors. As individuals who have a relatively higher level of education, we can safely assume they have a relatively higher rational capacity, which can be characterized as those that have factored almost all relevant variables into their decision making (Chaffee, 1983; Kim et al., 2018; Sharples, 1975). Hence, their responses to any external stimuli, e.g. accounting education reform proposal, can be attributed to some critical relevant factors.

The current research, therefore, is my scientific quest to understand the factors affecting the effectiveness of an educational reform initiative in my institution, and use the information to transform the accounting instructors' general resistance into acceptance and advocacy to a proposed reform initiative. More explicitly, there are two interrelated Problems of Practice (PoP) in the local context of my institution that I intend to solve through the current study:

1. There is a lack of information on the critical relevant factors for an effective reform, especially those that have a significant effect on transforming the faculty members attitude toward a reform initiative.
2. Corollary, there is a lack of guidance/empirical evidence on the effectiveness of the application of those factors in a reform initiative to produce full support and commitment from the faculty members.

To obtain the solutions for these two PoP, the current study conducted two sequential cycles of scientific procedure: investigation and intervention procedures. The first cycle research procedure was intended to investigate the critical relevant factors that caused my colleagues to demonstrate general resistant behavior to various accounting education reform proposals in the past. This procedure reflects my preference for a more comprehensive approach over the deficit view of instructors' approach to avoid a misleading conclusion due to the usage of a very simplistic yet unrealistic assumption, i.e. the organization members' behaviors/responses to any external stimuli happen in a vacuum.

Upon obtaining the factors in cycle 1 of the study, I used the information to implement a setting control intervention procedure in cycle 2. In quasi-experimental studies, this type of intervention is generally used to measure accurately/isolate the effects of the intervention of interest (Cook et al., 2002). However, in the current study, which uses Participatory Action Research as the method of inquiry, the motivation of applying such an intervention is purely pragmatic as it is intended to ensure that the expected results can be achieved (McTaggart, 1994). In this case, the setting control intervention is aimed to provide a conducive environment for the collaborators/subjects in the current study to rationally accept, support, and commit to my proposed accounting education reform, which is the main intervention of the current study.

To implement both procedures effectively and efficiently, I constructed the following two sequential research questions that the current study tries to answer:

RQ#1: What are the critical relevant factors of the education reform effectiveness, especially those that have a significant effect on overcoming the general resistance from the FA faculty in our institution?

RQ#2: Based on the RQ#1 answer, how do we apply these factors to produce the FA faculty's support and commitment to my proposed reform initiative, i.e. the ETI-based content sequence of the first courses in FA?

By conducting the first investigation procedure, I was able to obtain the collaborators' assessments on the various accounting education reforms in the past and calibrate their responses against the original CRFs list that I constructed based on the factors models suggested by previous literature in the domain on change management. The collaborators' reflections on the past reforms substantiate the relevance of the factors identified in the original CRFs list. The empirical evidence of the collaborators' responses further suggests the need to include two additional factors in the revised list. At the final stage of the cycle, there were seven factors listed in the revised CRFs list (see Figure 4.4) that I used to implement the setting control intervention in the cycle 2 of the study.

In the planning phase of the cycle 2, prior to the implementation of the main intervention procedure, I ensured that the setting control interventions had been thoroughly executed using the guidance from six out of seven factors of the revised CRFs list. Such interventions are aimed to modify the environment/settings that facilitate the effectiveness of the main intervention, i.e. the reconstruction of the ETI-based content sequence of the first courses in FA. The process of administering the main intervention itself is the manifestation of one factor of the CRF lists, i.e. providing avenues for

involvement to develop the proposed reform initiative. At the end of the study, the quantitative and qualitative measures indicated the effectiveness of both types of interventions as the expected results of a significant increase in the collaborators' commitment levels in applying the revised content sequence in their future classes were accomplished.

The following sections discuss the implications of the findings of the two research procedures in the current study. The reflection on the methodology of Action Research is also discussed in a separate section. Finally, this chapter concludes with the discussion on the future research that can be conducted as the continuation of the current study plan

5.1 IMPLICATIONS: REFLECTION ON THE KEY FINDINGS

Considering the effectiveness of the current study's comprehensive process that involves both investigation and intervention procedures in obtaining the expected results, some important implications can be drawn that are especially useful for future education reform initiators in formulating a winning reform strategy. Using Shadish et al.'s (2002) framework, I categorized these implications into two groups; first, the strategic implications, i.e. those derived from the current study's causal explanations, and second, the practical implications, i.e. those derived from the current study's causal description.

5.1.1 CAUSAL EXPLANATIONS-DERIVED IMPLICATIONS

In this category, the implications reflect the essential features of the current study's causal explanation. As Shadish et al. (2002) maintain the causal explanation demonstrates the researchers' qualitative effort in interpreting the causal description of a study's constructs and elements, i.e. units, treatments, observations, and settings, as a basis for formulating the generalization of the study. Even though the current study does

not attempt to make any generalization of the study's process and findings, nevertheless the concept of causal explanation is still relevant to be applied to the current study's thick descriptive method as it provide guidance for readers, reform designers, and policy makers in assessing the transferability of the research process and results to their own problems of practice. The followings are the strategic implications derived from the current study's causal explanation.

1. Education reform designers should incorporate the element of social justice in their reform plans

A reform initiator who intends to design an effective reform plan needs to use the social justice values as the underpinning worldview to obtain the acceptance and advocacy from the reform implementers. Unless the initiative involves only machines/robots to execute the plan, they should not underestimate the effect of the social and psychological forces in determining the success of the reform implementation, especially in the execution stage. Applying the social justice principle in the domain of education reform prescribes the designer to carefully weigh the cost/benefits of the plan implementation to ensure that the net wellbeing of the marginalized groups, especially the educators as the reform implementers, is promoted (Cochran-Smith, 2009; Collett et al., 2021). The failure to take this element into the equation of the reform implementation has been consistently shown to have an impeding effect on the effectiveness of the reform (Harvey, 2014; Jones, 2015; Kumashiro, 2015; Zimmerman, 2006).

In too many cases, unfortunately, instructors/teachers become the scapegoats for reform implementations failure because of their reluctance, or even resistance, to reform initiatives by the decision makers or public alike (Granger, 2008; Kumashiro, 2015). This

kind of negative view will only provide a misleading conclusion because it uses a very simplistic yet unrealistic assumption that the organization members' behaviors/responses to external stimuli happen in a vacuum. It offers little explanatory power as to why an educational reform would fail, even in the planning stage, since it prevents us from finding out the underlying factors of the failed reforms. Moreover, blaming the educators as the frontline of the reform efforts for the failure in the education reform will also degrade their morale and therefore make it even more difficult to achieve the ultimate goal of the reforms (Harvey, 2014; Jones, 2015).

The current study follows the footsteps of many carefully crafted previous studies that avoid such a deficit view of the educators, especially in the cases of failed reforms. The outcomes from studies that use asset-based perspective of educators indicate that the educators' inertia to change should be considered as a symptom rather than a fixed/static, isolated factor (Ford & Ford, 2010). Using such a positive view of educators gives us a more informative and constructive solution to the problem of practice in the domain of education reform. Future education reform initiators can learn from the effectiveness of the studies that incorporate social justice values to their reform plan to produce a successful reform initiative.

2. Education reform designers should be able to identify the pattern of relationship between all critical relevant factors in the reform context and the implementers' attitude toward reform initiatives

Incorporating the social justice principle as the underlying values in designing the reform plan prescribes a reform designer, among other things, to obtain factors affecting the attitude of the stakeholders, 'especially the implementers,' toward a proposed reform.

The positive or negative attitude of the stakeholders of the reform should be seen as the dependent variables relative to various external factors (Alanoglu et al., 2022; Snyder, 2017). The lack of acknowledging this causality, especially in the case of failed reforms, will likely lead to a misleading conclusion, such as pointing fingers to the implementers/educators and making them the scapegoats for the failures (Evans, 1996; Hargreaves et al., 2002).

Many previous studies have successfully identified the factors affecting the effectiveness of reform in general (Cohen & Mehta, 2017; Fernandez & Rainey, 2017; Kotter, 2012). These findings from these studies can be a preliminary guidance for reform initiators in designing a reform strategy. However, a reform initiator should take these proposed factors with a grain of salt. A healthy dose of skepticism is needed to produce an accurate conjecture that helps the initiator to formulate an effective reform plan. Each reform context is unique; therefore a thorough investigation to confirm whether such factors are transferable to their specific context is needed. Some factors identified by previous scholars may seem important in a general context, but may not be relevant in a specific reform's context and nature. Furthermore, some factors that present in a specific reform context (relevant) do not necessarily have a significant impact on the reform effectiveness, especially on the implementers' attitude toward the proposed reform. Therefore, as the current study shows, a reform initiator should make an empirical inquiry in their own reform context to find factors that are both critical and relevant, hence critical relevant factors (CRFs).

Obtaining the CRFs and incorporating them into a reform strategy also protect the reform initiators from a one size fits all strategy which has been consistently shown as

one of the reasons for a reform implementation ineffectiveness (Klaf & Kwan, 2010; Kreuter et al., 1999; Lieberman & Pointer Mace, 2008; Paige, 2006). This type of approach is usually used in a top down reform mechanism as a workaround to suppress the cost of implementation due to economy scale (Fink, 2003). Such an approach, however, tends to neglect idiosyncrasies of implementers psychology and heterogeneity in social dynamic across reform contexts, which are crucial factors to determine the effectiveness of a reform implementation.

3. Education reform designers need to apply the CRFs information obtained from the potential implementers in their reform strategy to create a conducive environment for reform

Having obtained the CRFs that are context specific, an education reform initiator should incorporate the information into their reform plan. The application of the CRFs in the reform implementation is aimed to create a conducive environment that facilitates the acceptance of the reform initiative by the stakeholders in general and the implementers in particular, therefore increase the likelihood of the operational effectiveness, i.e. the execution of the reform initiative.

From a positivistic stand point, the intervention from the researcher(s) on the research setting, and/or variable(s) other than that of the main research interest, can be seen as a violation to the principle of the research objectivity as it hinders the researchers to obtain an accurate measurement of the main intervention effect (Shadish et al., 2002). In the current study, however, the motivation of using the setting control intervention is purely pragmatic as it is intended to ensure that the expected results, i.e. improved practice, can be achieved. The implementation of this strategy is based on the assumption

that the interaction of research participants and their environment cannot be meaningfully separated. As opposed to the reductionist approach, the current study uses a holistic approach that sees the interaction as a whole phenomenon, and cannot be reduced as the sum of all parts (Quine, 2008).

Applying this setting control intervention is a necessary step before administering the main reform initiative to ensure the effectiveness of the reform process. In Lewin's three steps change model, this setting control intervention is analogue to the "unfreezing" stage, in which the change initiators starts the change process by breaking down the status quo, and taking the group members out of their comfort zone so that they are ready for a new/proposed change plan (Lewin, 1947). Similar to Lewin's unfreezing stage, the setting control intervention in this current study is crucial to enable the reform initiator to modulate the study environment in such a way that the collaborators will be more informed, persuaded, assured, and motivated about the proposed education change initiative.

5.1.2 CAUSAL DESCRIPTION-DERIVED IMPLICATIONS

Another set of implications can be derived from the current study's causal description. Such implications are more practical in nature than those derived from the causal explanation listed above, since they are directly related to the current study's operational and elements. As reported in Chapter 4, all five collaborators reported the high level of commitment to apply the revised ETI-based content sequence of the first courses in FA in their future classes, which indicate the effectiveness of the intervention process of the current study. In addition to the self-reported high level of commitment, the collaborators also provided some insightful feedback at the end of the study, as

guided by the CRFs implementation, which indicates their sense of ownership to ensure the effective implementation of the current reform initiative in their classrooms. The followings are the practical implications of the current study as suggested by the collaborators insightful feedbacks.

First, a coordination effort that involves a larger group of faculty beyond the domain of FA is necessary to improve the effectiveness of the accounting education in our institution and the quality of the education experience for students. This effort is relevant considering that FA, as one of domains in accounting, has a close relation to other accounting domains, such Management Accounting, Auditing, Accounting Information System, Tax Accounting, etc. Therefore, a change in the FA courses content sequence may affect, directly or indirectly, to other courses content sequence as well. Second, after successfully constructing the ETI-based content sequence, the current group of FA faculty needs to start planning on the next project of constructing an ETI-based syllabus and/or lesson plan which provide more detailed guidance to the first courses in FA instructors. Third, a periodic review needs to be conducted as part of the implementation of the ETI-based content sequence to ensure the synchronization with the most current FA development. Lastly, a study that evaluates the performance of the current innovation, especially by comparing it with the traditional FA instructional method, needs to be conducted in the near future.

The four implications derived from the current study's causal description above come from the deep reflections of the collaborators on the whole current study process and findings. The fact that I have been able to obtain the practical implications from the collaborators' insightful feedbacks substantiates their self-reported high level of

commitment. These feedbacks reflect the collaborators' sense of ownership in ensuring the proposed initiative implementation effectiveness to achieve its ultimate goal, which is to enhance the quality of education experience for the students. Overall, these two sets of implications provide guidance for the accounting education stakeholders to effectively manage a proposed reform that promote the wellbeing of both accounting instructors and students.

5.2 CONCLUSION AND FURTHER RESEARCH

To solve the PoP of consistent resistance to change in my institution, I implemented a study that uses AR as the method of inquiry. This method fits with my research objective through the use of collaborative mechanisms with my fellow accounting faculty members to bring about social change in my institution. As a research tool, AR is very practical as it enables the researchers and collaborators working together on their current problematic situation and immediately applying the new knowledge obtained from the collaborative process into their environment through the integration of participation, action, and research (Chevalier & Buckles, 2019). Due to this practicality, the application of the solutions reflects the prescriptive nature of the research process, as the results of the intervention and/or investigation process are continuously calibrated against the specific and contextualized objectives which are derived from socially constructed values (Tsang, 1997).

On the other hand, the practical nature of the AR method comes at the cost of analytical power. It means that AR as a research process does not emphasize on the exact measurement of the individual variables' impact on the study outcomes. This is because AR sees the interaction between research subjects/collaborators and their

settings/environment as one whole unique lived experience that cannot be meaningfully separated (Doherty et al., 2010; Leitch & Day, 2000). This holistic view of causal processes would invite criticism especially from those adherents of reductionist approach for its capability, or lack thereof, in interpolating and extrapolating the research outcomes into different spatial and temporal research dimensions (Cook et al., 2002). However, criticizing AR for its "weakness" in the department of generalizability is like criticizing elephants for not having giraffes' long neck.

Therefore, in the current study I embraced the concept of transferability as an important feature and substitute of the generalizability concept in a qualitative (thick descriptive) study (Guba & Lincoln, 1982). In this view, readers are advised to be cautious in deciding whether to apply the current research findings to other research elements of units, treatment, observation, and setting, as well as time aspect in each of these elements. Making a rush, uninformed decision to apply the current research process to different spatial and temporal research dimensions will potentially bring the problem of Mackie's (Mackie, 1980) INUS (Insufficient but Necessary part of Unnecessary but Sufficient) condition to the future appliers. By elaborating the background details of the research process in the current study, I hope to assist readers to avoid such a problem and assess on their own whether the research process and results are transferable to their specific problem of practice.

Finally, from the perspective of the current study's main intervention, i.e. the application of ETI-based content sequence in the first courses of accounting, I set the delimitation of the project to focus on taking the proposed reform to the execution stage. Using the reform project stages category mostly used by scholars in the domain of project

management, the delimitation above means the current study covers the reform project process as far as the initiation and planning stages (Westland, 2007). As a consequence, it does not provide guidance to future reform initiators on how to develop reform strategies beyond the execution stage, e.g. performance assessment, evaluation, feedback, and refreezing stages.

This delimitation, on the other hand, presents a valuable opportunity for future scientific endeavor to expand the current study's main intervention to the further territory of the reform process. For example, a novel inquiry can be made to address the question of whether the ETI based content sequence is superior to the conventional content sequence with respect to education outcomes and students learning experience. Such a study, which focuses on some narrow values from a specific group of education stakeholder, may need to utilize a post positivistic approach, with a counterfactual design of research to obtain an accurate measure of the intervention effect.

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