

## **Accounting Teachers' Quality of Use of Pre-Tertiary Accounting Curriculum in Ghana's Secondary Schools**

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### **ABSTRACT**

The purpose of this study was to gauge the quality of use of pre-tertiary Accounting curriculum in Ghana's secondary schools using Concerns-Based Adoption Model Level of Use as a proxy. Using an equivalent status sequential mixed methods design, 155 out of a population of 402 senior high school accounting teachers were selected at random to participate in the study. Both Levels of Use Questionnaire and Interview Guides were used to collect data. All the teachers responded to the questionnaire. Out of the 155, only 30 of them were selected on purpose to participate in the interview. Data was analysed with help of frequencies, percentages, and themes. The study found that even though most teachers implemented the accounting curriculum sustainably, others' use of the curriculum was mediocre. The quality of use of the curriculum was shaped by teachers' perceived relevance of the curriculum, level of difficulty of topics, availability of teaching aids, interest of the teacher, availability of curriculum materials, and freedom offered teachers to implement the curriculum.

**Keywords:** accounting teachers, accounting curriculum, levels of use, CBAM, accounting education

### **Introduction**

Quality education thrives on conscious planning, great effort, huge expenditure, and commitment of stakeholders. Central to these requirements for successful education enterprise is planning. There is a myriad of plans to consider in education; a key one being the curriculum plan. Each school system has an approach to curriculum planning and implementation. In centralised school systems as practised in Ghana, curriculum is centrally planned and delivered primarily by fidelity of implementation. According to Kwarteng

(2013), this is, among other reasons, to achieve uniformity in content taught and learnt, and to facilitate the transferability of students from one school to the other.

Fidelity of curriculum implementation is adhered to when the school curriculum is implemented in the exact manner the programme designers have provided guidance for it. It does not tolerate any deviation from the guidance given because the outcome of the curriculum must reflect the original design to provided evidence of effectiveness (Snyder, Bolin & Zumwalt, 1992). The nature of the accounting discipline provides for universal recognition and treatment of similar transactions in the same manner to ensure uniformity in practice. Therefore, fidelity of implementation of the accounting curriculum presents itself as the only approach that could deliver the content of the subject to minimize any undesirable unplanned learning outcomes.

The nature of accounting calls for minimum deviation from the standard procedures that are established to guide practice. Students must develop the required skills and habit of mastering reporting principles and standards and conform to the common conventions that guide the practice of accounting. This uniformity enhances standardization in financial reporting which in turn creates a wider market appeal for accounting graduates. To continually uphold this uniformity, teachers must ensure strict adherence to the principles, standards, and conventions of the discipline. This, more or less, implies indoctrination and thus does not give room for creativity. Hence a realist accounting curriculum is often created where students are made to memorize and reproduce concepts without having to question what they learn. This results in teacher-centred lessons where the teacher is presented as a *know-it-all*. The duty of the teacher is to train students through discipline of the mind to expose them to the onerous *wisdom* that the teacher possesses. Therefore, by design, the traditional accounting curriculum aims at nothing but the creation of technical accounting experts.

However, several factors including the diversity of student body, technological and economic change and external pressures from employers no longer support, if not militate against, the training of students in this manner. Therefore, the education system should pursue quality of use of the accounting curriculum but not fidelity of its implementation. Quality of use measures the extent to which teachers' conduct in classroom seeks beneficial interest of students even if that means deviating from the official plan. Accordingly, the quality of use is circumstantial. Therefore, it is increasingly needful and possible that accounting teachers modify the use of the accounting curriculum to appeal to students' needs.

An earlier study conducted by Kwarteng (2009) to assess the concerns of accounting teachers in implementing school accounting curriculum in Ghana revealed that most accounting teachers were in the category of *non-users* of the curriculum. Using Concerns-Based Adoption Model (CBAM) this study, therefore, sought to examine accounting teachers' quality of use of the (Ghana) Ministry of Education supplied accounting curriculum. The question that guided this research was: What are accounting teachers' quality of use of pre-tertiary accounting curriculum?

### **Approaches to Curriculum Implementation**

Successful delivery of curriculum requires its thorough implementation in all the areas its target for coverage. Curriculum implementation is the final open use of the curriculum within its catchment area (Fullan 1991). Several dissemination strategies such as translocation, communication, animation, and re-education are used to smoothen the implementation process. However, irrespective of these strategies, one of three main approaches, fidelity, mutual adaptation, and enactment, is adopted to implement school curriculum, depending on the education system in practice (Snyder, et al. 1992).

#### *Prospects and Challenges of Fidelity of Implementation*

Fidelity of implementation operates on the assumption that a lack of standardization within and between programme providers inflates error variance and decreases power (Moncher & Prinz, 1991). Therefore, teachers are requested to implement the curriculum in the same way all over the schools covered by that education system under whose authority they fall. Such uniformity of programme and its implementation ensure that students go through the same learning experiences. The result of standardization in implementation is the ease with which evaluation can be done to see how different sites of programme implementation compare.

Fidelity of curriculum implementation helps to understand how the degree of programme implementation can affect the achievement of goals and how implementation can be improved when the programme needs to be scaled up. For instance, the advent of the curriculum necessitates that facilitators and supervisors are trained to be in tune with the programme dictates (Moncher & Prinz, 1991). This kind of training is provided to all teachers and supervisors who will be engaged in the delivery of the change to ensure its successful implementation.

On the other hand, fidelity fails to recognize that some unplanned learning outcomes occur that are desirable in the learning process. It thus only offers what Taba (1962) describes

as a limited concept of school learning, a parochial view of education. Bondi and Wiles (1979) contend that fidelity could not be considered as a sacrosanct guide to practice. Fidelity can only be a matter of degree rather than an absolute phenomenon. Achieving the exact outcomes of the programme is therefore not always possible. This implies a possibility that teachers might not faithfully implement the curriculum. Failure to use the curriculum documents with the necessary guidelines as intended will distort the outcome of the curriculum and thereby harm the planned learning. Hence a modified use or none use of the curriculum may militate against the effectiveness of the curriculum and its success. According to Hall, Dirkson and George (2013), research has downplayed the importance of studying the extent of implementation of curriculum at individual levels. Therefore, the *level of use* offers a better, more critical mechanism to gauge the degree of quality of implementation of the accounting curriculum.

#### *Adaptation of Curriculum in Flexible Education System*

Barnes (2005) observed that teachers acknowledge the existence of what is required of them in curriculum implementation but in practice they often fail to comply. Hence, teachers tend to manipulate a centrally planned curriculum. That is why in flexible school systems, teachers are given the liberty to adapt the change to obtain the highest possible result. Teachers alter the curriculum to suit their peculiar school or classroom situation; after all, the curriculum is considered a guide to practice.

The lack of uniformity in conditions across schools triggers some belief in teachers that curriculum implementation is context-specific (Paris, 1989). Curriculum adaptation is not exclusive to only geographical area, but it can be done to meet individual students with intellectual disability needs (Lee, Amos, Gragoudas, Lee, Shogren, Theoharis, and Wehmeyer, 2006). Teachers achieve maximum curriculum returns by manipulating the conventional curriculum to meet their local needs. The curriculum students actually receive is influenced by what teachers believe, by what peers believe and do, and by cultural issues (Barnes, 2005). To satisfy diversity in culture, there is need for “adaptations” of the regular curriculum. The effects of this exercise may involve organisational modifications in its goals and contents, methodologies, didactical organisation, and temporality and in the evaluation philosophy and strategies. The aim is to make it possible to meet everyone’s educational needs in the creation of knowledge.

Additionally, comparing the results of one implementation site with another will not yield any practically useful evidence for decision making because the conditions in the

different sites are usually not the same. Hence they cannot serve as the basis for meaningful comparison. The practical impossibility of making school conditions uniform dictates that a centrally developed curriculum does not have to be implemented as planned because contextual factors chiefly affect the extent or degree to which actual implementation will approximate the planned curricula.

#### *Enactment of Curriculum in Decentralised Education System*

In decentralised school systems, it has been the norm to leave the development and implementation of school curricula in the hands of various school districts or schools in the locale. Uniform answers to educational problems are practically not feasible because problems are situationally determined and complex (May 1991). School curricula are tailor-made to suit conditions in each locale as opposed to the centrally developed one operational in both the centralised and flexible school systems. Notwithstanding, the local school curricula are derived from the national philosophy of education. This opportunity enables teachers to develop effective pedagogies that ensure sustainability, citizenship, enterprise, and globalisation of learning experiences to meet the needs of the different areas.

Paris described teachers in this approach as explorers who constantly strive for perfection through continuous practice (1989). In this approach the involvement of teachers ranges from the production of new syllabuses and curriculum guides at all stages, as syllabus-writers, as members of advisory committees to the syllabus-writers, and as participants in school-based trials of syllabuses and curriculum materials. The advantage of their participation is the opportunity it gave them in promulgating their interest and advancing their views on how the curriculum should be. According to Martin (in Handal & Herrington, 2003), curriculum implementation approaches that do not consider teachers' beliefs have a temporary life. Incorporating teacher beliefs is a sure way of inspiring teachers' enthusiasm and winning their trust for the curriculum adoption. Notwithstanding, granting unwarranted liberty to teachers without any control measure may lead to an abuse of freedom.

#### **Monitoring Tools and Processes of Curriculum Implementation**

After the curriculum has been implemented, it is prudent to develop measures to monitor its progress. There are several methods, approaches or theories of monitoring the extent of curriculum diffusion or implementation. These approaches focus on either the group or individual teachers involved in the implementation process. The most popular models include action research, curriculum alignment, comprehensive school reform programmes, and

CBAM. While these approaches have their strengths and weaknesses, the choice model adopted for this study is CBAM.

Action research is an interactive inquiry process that balances problem solving actions implemented in a collaborative context with data-driven collaborative analysis or research to understand underlying causes enabling future predictions about personal and organisational change (Reason & Bradbury, 2001). It involves reflective problem solving techniques which enable the researcher to perform a task over and over to achieve the desired state of affairs. Action research aims at bridging the gap between theory and practice. It makes use of various theories resulting from basic research, applying them to concrete situations to evaluate the impact or potency. In the classroom, it allows teachers to have a practical feel of specific context-bound factors and affords them opportunity to operate without any restriction.

Action research proceeds in a spiral of steps each of which is composed of a circle of planning, action and fact-finding about the result of the action. This basic principle of a spiral of steps lives on in the design of many action-research studies but Marsh and Willis (2003) question whether such steps are in themselves sufficient unless teachers' intentions complement them. This involves conceiving an idea about what needs to be done, executing tasks as planned, determining the extent of task achievement, and looking for alternative means of doing it better. The major limitation of this approach is the fear that school principals may have following teacher empowerment. This may generate internal problems with possible undermining of the smooth operation of the process.

Curriculum alignment is another approach used to ensure a fit between the ideal of the curriculum plan and its implementation. According to Marsh and Willis (2003) curriculum alignment involves teachers making efforts to approximate planned curriculum through extensive testing of what is taught. Basically, it is students who are tested, yet teachers' performance is measured indirectly in terms of how well students perform in standardised tests. Although teachers are not the sole determinants of students' success or failure, they play a key role in ensuring that the right learnable bits are imparted. Such experiences must necessarily stem from the planned curriculum. Myers and Myers (1995) opine, in the context of the US, that incentives for teachers are tied to school-wide student performance. Teachers are rewarded according as they perform in aiding students pass examinations. Thus teachers' salaries are adjusted as they put up a remarkable performance. Continuous monitoring of teachers to ensure that they instruct students based on the plan will help increase the degree of fidelity of implementation.

Curriculum alignment also requires that the material taught in the school matches the standards and assessments set by the state or district for specific grade levels. It is a way of mapping the curriculum onto the standards to be sure that the school is teaching the content that is expected. In states that use tests to assess student mastery, schools may also align their curriculum with the content of the test to assure that students have studied the required content before taking the tests. It should be noted that curriculum alignment lends its application to flexible school systems where school curriculum is adapted. Therefore, it cannot be applied to monitor the progress of curriculum implementation in Ghana where curriculum implementation is by fidelity.

A further tool for monitoring curriculum implementation is the Comprehensive School Reform programme (CSR) originally developed in the where? UK???) to help low-performing schools overcome some of the most common obstacles to effective school reform. The CSR requires that schools focus their reform efforts on the entire school, rather than implementing isolated piecemeal programmes. CSR also requires that schools use comprehensive school improvement models that are proven effective by scientifically-based research. A CSR requires that these models provide schools with support and training for all stakeholders, including teachers, administrators, parents, and school staff. There are series of CSR that low-achieving schools can use to improve upon their performance. The choice of programme is dictated by the needs of the school. However, no single CSR can provide solutions to all the problems of a school. The unwieldy ?? need to use multiple programmes to address every bit of the host of problems that confront a school discommend this approach.

### **Theoretical Basis of the Study**

The CBAM was employed to measure the quality of use of the accounting curriculum because focuses on exactly what teachers do. This provides clearer picture of the extent of curriculum implementation by obtaining first hand data from the main implementers of the school curriculum.

CBAM is a complex multi-dimensional model that tracks the progress of innovation implementation with a focus on the implementers. It comprises the "Level of Use" (LoU), "Innovation Configuration" (IC) and "Stages of Concern" (SoC). Both SoC and LoU are concerned with the personal attitude, perception and activities individual teachers have or undertake in the light of implementing an innovation. On the other hand, the IC concentrates on the attributes of the innovation that enable it to succeed.

IC is committed to making sure that the components of the curriculum are made clear. Once teachers become aware of the main tenets of the innovation their efforts will be channelled towards that common good. Innovation configuration recognizes the merit of specifying parts of the change, and providing trainers with hands-on tools, called Practice Profiles, for making those identifications (Horsley and Loucks-Horsley, 1998). The Practice Profile requires change leaders to formerly define how the change should look when implemented. The profile first includes a precise description of the resources and conditions necessary to implement the programme. Then perhaps six to eight critical components of a programme are identified, along with sets of descriptive examples of what each component looks like when used appropriately. Teachers would be enabled to determine whether they are on the right track once they clearly know what is expected of them. Stressing the essentials does not really mean that all teachers will perceive that as such. Accordingly, Marsh and Willis (2003, p. 257) comment that:

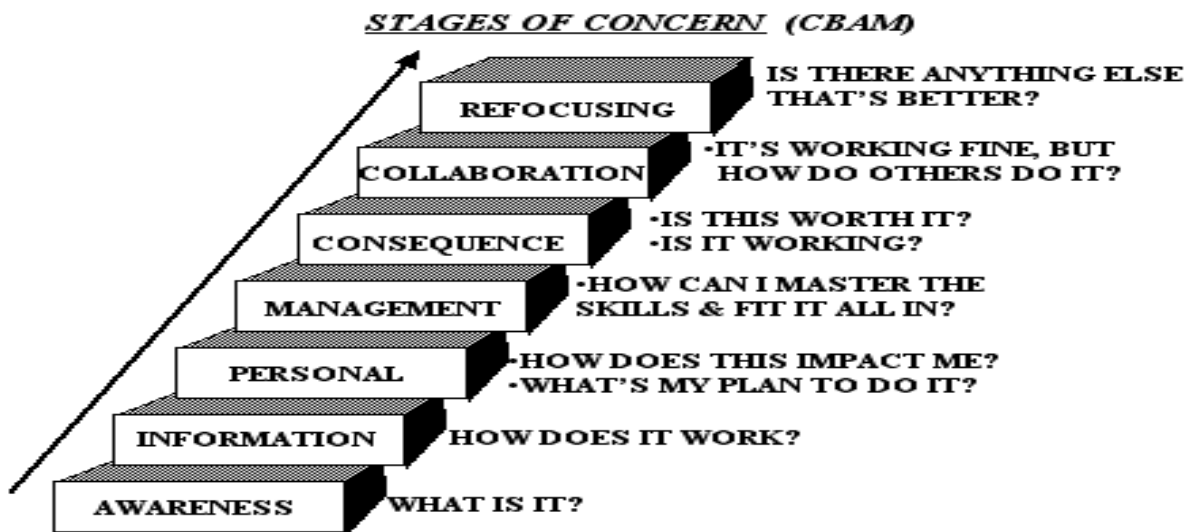
The IC does not ensure that everyone will agree on what is essential, but it helps everyone clearly identify differences between the planned curriculum and the enacted curriculum, and when disputes arise (about, for instance, fidelity of use versus mutual adaptation), it provides a basis for informed discussion about differences and for possible adjustments in the curriculum.

IC is highly operational in the centralised and flexile systems of education with varying degree of applicability. The intent of its use is to identify how differently various teachers are implementing the same curriculum as planned. This will help bring worthy modifications into the curriculum to help elicit desired outcomes.

Figure 1 illustrates that SoC defines teachers' learning and development as going through seven stages in implementing school curriculum. Accordingly, implementers' focus or concern of the curriculum being implemented shifts in rather predictable ways (Sweeny, 2003). Awareness as the first stage describes the extent to which people know of the existence of the innovation. Ordinarily, teachers will have to become aware of an innovation before they will have the desire to know how it really works. There is always the tendency that they will consider the relative advantage that is associated with the innovation. This may not necessarily be any extrinsic reward but may also include the satisfaction of accomplishing a challenging task. Once they know the reward associated with the successful delivery of the innovation, teachers will master the skill that is required by the change to implement it as intended. After some time, they evaluate their effectiveness to see how well they have



performed. They will collaborate with others to build teams or consult each other to see how synergy can help fine-tune their skills and understanding.



**Figure 1:** Stages of Concern (CBAM) Source: After Sweeny (2003)

Finally, teachers evaluate the innovation and begin to search for new and groundbreaking ways to achieve a better result. Possibly, this stage is where they have exhausted all the perceived benefits of the innovation. From the foregoing it is evident that the seven stages are developmental, starting with “awareness” and ending with “refocusing”. Thus the satisfaction of each stage triggers the concerns of the next.

To track what teachers do during curriculum implementation, Hall, Wallace and Dossett (1973) used the LoU (Marsh & Willis, 2003). The LoU focuses on teachers' skills and perception and subsequent use of an innovation. It describes the behavioural dimension of change focusing on what teachers actually do in the classroom when making the transition from teaching one way to teaching differently (Hall and Hord 1987). To a large extent the LoU determines the extent to which planned curriculum is put to actual open use throughout the system. Based on Hall and Hord (1987) description, Horsley and Loucks-Horsley (1998) provided a simplified version of the LoU, defining the characteristic behaviour of each level as shown in Table 1.

**Table 1: Theoretical Definitions of Levels of Use**

Level	Description	Definition
0	Nonuse	State in which the user has little or no knowledge of the innovation, has no involvement with the innovation, and is doing nothing toward becoming involved.
I	Orientation	State in which the user has acquired or is acquiring information about the innovation and/or has explored or is exploring its value orientation and its demands upon the user and the user system.
II	Preparation	State in which the user is preparing for first use of the innovation.
III	Mechanical	State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.
IVA	Routine	Use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.
IVB	Refinement	State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short- and long-term consequences for clients.
V	Integration	State in which the user is combining own efforts to use the innovation with the related activities of colleagues to achieve a collective effect on clients within their common sphere of influence.
VI	Renewal	State in which the user reevaluates the quality of use of the innovation, seeks major modifications or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

Adopted from Hall, Dirksen and George (2013)

Hall and Hord (1987) identified five distinct Levels of Use among users and three Levels of Use that define nonusers of a programme. This is reflected in their work as summarized into eight levels above. The levels “non-use”, “orientation” and “preparation” do not involve any attempt of use. Teachers' conduct at these levels range from absence of intention to use to making plans to put the change to use. The last five levels involve some extent of use. Horsley and Loucks-Horsley (1998) suggest that these are significantly different levels of proficiency. However, once people decide to use a new practice and receive training in its use, they establish a suitable routine quickly.

### **Quality of Accounting Education through Level of Accounting Curriculum Use**

A higher rate of accounting curriculum usage is likely to promote higher quality in accounting education and vice versa. This is not just about the rate of usage of the accounting curriculum. It implies how accounting teachers make productive use of the curriculum to bring about both planned and unplanned learning.

Hall, Dirksen and George (2013) stress that several implications for curriculum implementation evaluation centre on teachers' levels of use of the curriculum. Studies on first-time users of any curriculum consistently show that most first time users will be at LoU III Mechanical Use. They stressed further that teachers at LoU III Mechanical Use are disjointed in their use of the curriculum; they have a short-term focus to their planning and cannot predict the typical mistakes that their students will make. Therefore, only higher levels of use should be included to determine the quality of the implementation. This presupposes that the first four levels of use, degree of quality of implementation, are not significant. Thus, Nonuse, Orientation, Preparation and Mechanical user statuses do not have the desirable level of curriculum implementation quality.

LoU quality criteria needed to evaluate the level of quality of high school accounting education was developed based on Hall, Dirksen and George's (2013). The summary of the criteria is presented in Table 2. The table provides judgement of the extent of quality in accounting education that reflects a user category of the accounting curriculum.

**Table 2: Quality Criteria reflecting Levels of Use**

Usage status	Quality description	Definition
0 Nonuse	Poor	Measure of quality is undesirably insignificant.
I Orientation		
II Preparation		
III Mechanical	Turbulence	Series of experimentation of what works in the classroom makes quality unstable but expect improvement with time.
IVA Routine	Good for the occasion	Stability in quality education but robs students of future opportunities because quality is episodically myopic.
IVB Refinement	Sustainable	Enduring, forward-looking and ever-relevant quality of education.
V Integration		
VI Renewal		

### **Empirical Studies on Teachers' Level of Use of School Curriculum**

A number of studies (Dirksen, 2002; Graber, 2005; Prugh, 2004; Yarberr, 2004) that reported on first-time users of educational innovations found that more than 50% of teachers were at LoU III Mechanical Use and that movement to higher LoU requires time, resources, leadership, and training. But Wang's (2013) study found teachers to be mainly mechanical and routine users of the new curriculum. He attributed the reported levels of use to teachers' uncertainty about the innovation, lack of the requisite training, and inadequate teaching time.

Even where implementation of innovation is mandated, there is a fair degree of variation in LoU and how an innovation is implemented (Gwele, 1996). In many cases the innovation seemed to have been redefined by the participants following individual evaluation. A number of teachers adjust the innovation to better meet their needs, the teaching situation, or their students' needs (Dirksen, 2000; Gwele, 1996). This causes major problems when a school or district is working to implement an innovation where a high degree of fidelity to the innovation's critical attributes is necessary to maximize impact on student learning (Hall, Dirkson & George, 2013).

Uncertainty about the innovation follows from the judgement teachers may have passed on it. Teachers often judge the relevance of the innovation before they make decision to adopt and use it. Hall, Alquist, Hendrickson, George, Johnson, Thornton, and Uchiyama (1999) noted that teachers pass a judgement of the worth of the innovation before they commit to it. Accordingly, teachers need freedom to do their own assessment of the innovation and should not be cajoled to commit to the implementation. Hope (1995) found that a supportive, nonpunitive environment with no pressure on teachers to become users of technology promoted teacher use of technology.

The correlational study involving a sample of 23 science teachers that Falkenberg (2002) conducted concluded that LoU and teacher creativity differentiated teachers' skills. This confirmed the findings of Hall et al. (1999) that the skills of the teacher are essential to facilitate change. Once they commit to the innovation, teachers will engage the store of their skillset to implement the innovation. But where they lack the required skill, attempts should be made to capacitate them to increase their levels of use of the innovation. Evidence to this effect could be found in a study by Krasner (1999) which revealed that teachers with higher LoU had extensive knowledge and expertise, had a greater sense of responsibility for student success, integrated planning and assessment, evaluated learning materials, and expressed a greater need to teach students. To capacitate teachers in this manner, sound leadership is integral to ensure success of teachers' development. The commitment of the leadership can boost the morale of teachers to commit to the development.

School leadership has been found to play a central role in teachers' levels of use of school curriculum. A study conducted by Geijsel, van den Berg, and Slegers (1999) concluded that schools that more readily adopted an innovation had a common vision, with good leadership to facilitate achievement of objectives through collaboration, enthusiasm and dedication to teachers' welfare. These transformational leaders facilitated teacher participation in decision making and fostered teachers' growth through capacity building programmes. Hall et al. (1999) found strong strategic leadership, together with skilled change facilitators, a worthwhile innovation, and systematic data gathering about implementation to be the key factors that support systemic change. Schiller's (2000) study corroborated the use of school leadership in promoting teachers' levels of use. Similarly, Tunks and Weller (2009) noticed that with continued support, most of the participating teachers could achieve routine levels of use, which they could sustain beyond the implementation of the curriculum.

Unfortunately, there seems to have been no study conducted on LoU in Ghana. In general, available studies of LoU seem to have concentrated on its application to assessing the extent of the implementation of school curriculum or other programmes. None, however, has covered the LoU of high school Accounting curriculum and neither has any attempted to use the LoU as a proxy for gauging the quality of accounting education. The current research fills this gap.

### **Methodology**

Equivalent status sequential mixed method research design was adopted for this study. Both quantitative and qualitative methods of data collection were used in the survey of Accounting teachers who participated in the research. The mixing was done at three stages; the sampling, instrumentation and analysis stages. Whilst respondents were selected at random to participate in the completion of the questionnaire, those who were interviewed were recruited on purpose. At the instrumentation stage, the mixing took the form of the use of the interviews and questionnaires to gather data. The mixing at the data analysis stage involved the use of percentages and frequencies and themes to analyse the data generated. The main quest for mixing the methods was to obtain corroborative evidence to triangulate the results.

In all, 155 out of a population of 402 pre-tertiary accounting teachers were selected to participate in the study. They were selected randomly from 68 public senior high schools that offer accounting across Ghana. Guest, Bunce, and Johnson (2006) advise that a minimum of 15 participants should be engaged for qualitative studies. For this study, the researcher selected 30 out of the 155 participants for the interview.

The LoU questionnaire and interview guide were used in gathering data from the respondents. The questionnaire was made up of eight statements, each reflecting a LoU. Accounting teachers were to select any one of the statements that reflected their level of use of the accounting curriculum. Similarly, the interview items were formulated in line with the levels in the LoU. However, it provided the opportunity to probe responses given to fully interrogate a matter. The questionnaire was piloted and yielded a Cronbach alpha of 0.78. Also, a researcher colleague validated the face and content validity of the interview guide. After the interview data was generated and transcribed, it was member-checked to further ensure its validity.

The questionnaire was administered before the interview was conducted. The sequence was to allow the researcher to identify typical users and non-users of the curriculum

for a follow-up interview. Interview schedules were arranged to suit the interviewees. The average duration for each interview was 40 minutes. Interview transcripts generated were given back to the respondents to member-check to ensure validity and data credibility. Quantitative data yielded by the questionnaire were analysed using frequencies and percentages. The interview transcripts were analysed under the following themes to ensure succinctness and readability: sustainable quality of use of accounting curriculum; turbulent quality of use of accounting curriculum; and poor quality of use of accounting curriculum. These themes reflect the quality descriptions shown in Table 2.

Each of the three diagnostic dimensions of CBAM (IC, SoC, and LoU) has a designated method and an instrument to collect and present appropriate data associated with it. Each of them requires the researcher to be immersed within the scene of the innovation and to continually refine judgments associated with the diagnostic dimensions (Newhouse, 2001). Even though each of the dimensions of the CBAM can function independently, using all the three in an analysis will give a better result. Therefore, singling out the LoU without complementing it with the IC and SoC may have a detrimental effect on the validity of the findings, albeit trivial.

## **Results**

### *Teachers' Level of Use of Pre-tertiary Accounting Curriculum: Descriptive Evidence*

The results of the quantitative data gathered on accounting teachers' levels of use of the accounting curriculum are displayed in Table 3 which shows both absolute and relative numbers of accounting teachers operating at each level of use of the accounting curriculum. Less than half (n=43 out of 155; 27.8%) of the accounting teachers went beyond the routine of using the accounting curriculum by assessing the impact of their efforts and making changes to increase that impact. Only a few (n=6 out of 155; 3.9%) of the accounting teachers had made the decision to adopt the new practice. Accordingly, such teachers were actively preparing to implement the curriculum. However, quite a sizeable number (n=23 out of 155; 14.8%) of the accounting teachers surveyed took no action with regard to the implementation of the curriculum.

**Table 3: Accounting teachers' adoption of the accounting curriculum**

Level of Use	Frequency	Percentage
Level 0, Nonuse	23	14.8
Level I, Orientation	11	7.1
Level II, Preparation	6	3.9
Level III, Mechanical	9	5.8
Level IVa, Routine	14	9
Level IVb, Refinement	43	27.8
Level V, Integration	25	16.1
Level VI, Renewal	24	15.5
Total	155	100

In spite of the apparent inaction of some of them, other (n=25 out of 155; 16.1%) accounting teachers were actively coordinating with other colleagues to use the curriculum. In addition, 24 (15.5%) out of 155 accounting teachers surveyed sought more effective alternatives to the established use of the curriculum. Even as some (n=24; 15.5%) accounting teachers were essentially beginning a new cycle of Levels of Use, others (n=11 out of 155; 7.1%) were seeking information about the new accounting curriculum in use. Another usage cohort (n=9 out of 155; 5.8%) were making attempts to use new strategies, techniques and materials for the delivery of the accounting curriculum. This is the point in the use of the curriculum at which teachers may often feel inadequate and awkward. At best, they felt as though they were preparing a new recipe for the first time, constantly referring to the cookbook for guidance and reassurance. In this turbulence, however, some (n=14 out of 155; 9%) of the accounting teachers had established a satisfactory pattern of implementing the curriculum to make it succeed.



*Quality of Pre-tertiary Accounting Curriculum Use*

Using mainly the quantitative data, the summary of the results on the quality of senior high school accounting curriculum use was obtained and presented in Table 4. Frequency counts and percentages used in presenting the results made it clearer to gauge the number of teachers who depicted a particular level of use. Following from the quality criteria described in Table 2, all the accounting teachers at LoU 0, I and II were categorised in *poor* quality of use description; those with LoU III were classified into *turbulent* quality of use description; those with LoU IVA were captured as teachers in the *good for the occasion* quality of use criteria; and those in the LoU IVB, V and VI were pooled as having used the curriculum sustainably. A teacher could depict only one of the quality criteria as shown in the underlying levels of use results in Table 3.

**Table 4: Quality of use of high school accounting curriculum**

Quality description	Frequency	Percentage
Poor	40	25.8
Turbulent	9	5.8
Good for the occasion	14	9
Sustainable	92	59.4
Total	155	100

As could be seen from Table 4, the bulk of the teachers (n=92; 59.4%) peaked at sustainable use. Therefore, most of the teachers approximated the quality of use criteria which espoused the quest to achieving enduring, forward-looking and promoting ever-relevant quality of accounting education at the senior high school. However, because fidelity is implied in the implementation, it is appropriate to report on the total quality of the implementation, not just the majority of the cases.

Accordingly, the results show that the remaining teachers (n=63; 40.6%) quality of use was not encouraging. Typically, almost 66% (i.e. 40 out of 63 of the teachers) of this category of teachers' quality of use of the curriculum indicated that the measure of that

quality was undesirably insignificant. Nine (5.8%) other teachers were still experimenting with the curriculum to see what worked in the classroom. They had no established pattern of implementation. There were 14 (9%) other teachers whose level of use showed some episodic stability in quality education but failed to make provisions for future improvements.

To complement the data from the quantitative results, qualitative evidence was gathered to facilitate a deep understanding of teachers' quality of use of the accounting curriculum. The accounting teachers, it should be noted, limited the definition of the curriculum to the syllabus. Almost all the teachers studied indicated some level of use of the accounting curriculum but, the rate and extent of usage varied greatly among the teachers.

#### *Sustainable Quality of Use of Accounting Curriculum*

Evidence available suggested that accounting teachers were ensuring sustainability in the implementation of the high school curriculum. For instance, it was intimated;

*I used it, this is because it serves as a guide on how to plan my lesson. It helps me to select topics which are to be taught. It also helps me to select topics which meet the standards of the final examination at the senior high school level. The syllabus also serves as a guide on the right method to be used in a particular teaching and learning situation.* [A Financial Accounting Teacher]

A cross section of accounting teachers believed that the new accounting curriculum should offer them comparative benefits over the old one, failing which its value cannot be felt. It was found that teachers evaluate the curriculum on a number of factors some of which were captured as,

- a. *Relevance – the relevance of the topics in the syllabus to the learners in future life;*
- b. *Difficulty/Ease of the topics in the syllabus;*
- c. *Familiarity of the topics in the syllabus;*
- d. *Availability of teaching aids in the school for the topics in the syllabus; and*
- e. *Personal interest of the teacher.* [Views of a section of Accounting Teacher]

These were the working criteria accounting teachers adopted to evaluate the curriculum. Nevertheless, even those accounting teachers who had the new curriculum intimated they had not totally discarded the old syllabus because, "If, however, there are limitations on some aspects of the new syllabus, one may refer to the old one." [A Cost Accounting Teacher]

### *Turbulent Quality of Use of Accounting Curriculum*

The accounting curriculum documents (mainly, accounting syllabus) were in short supply. Some of the accounting teachers did not have the accounting syllabus they were to use for instructional guidance.

*But some tutors do not have copies of the new syllabus, probably, it is not given to them by their school or heads of Departments. Specifically speaking, I don't have. I mostly rely on the old syllabus, I only research on the topics which have been added in the new one and omitted from the old syllabus. [A Financial Accounting Teacher]*

Some of the accounting teachers with access to the curriculum were still familiarizing themselves with it after nearly seven years of its introduction. Some did not understand the contents of all the topics in totality. A teacher confessed that,

*There are few new topics added such as Value Added Tax and Payroll Accounting so I must be careful in making reference. Cash flow statement is no longer in financial Accounting, but many books maintain it.*

Yet, the delivery of the curriculum as is required in a centralized school system demands meticulous faithfulness to the contents of the centrally planned accounting curriculum.

### *Poor Quality of Use of Accounting Curriculum*

Some among the accounting teachers never saw the curriculum as an appropriate guide but rather used it because they were asked to. Several such teachers espoused their blatant disregard for the intrinsic value of the curriculum. A cost accounting teacher declared noncommittally that, "It is compulsory and mandatory for teachers to use the new syllabus", implying that was why this teacher used it. Another respondent, A Cost Accounting Teacher, said, "A teacher has no option not to use the new syllabus as questions are asked based on the new one."

## **Discussion**

Even though some teachers indicated some quality of use of the accounting curriculum, the fact that others failed to implement the curriculum above IVa Routine use limits the quality of implementation. To the best of the knowledge of some teachers and as far as available resources could permit, they were engaged in the delivery of the curriculum at some level. Whilst some accounting teachers were developmentally progressing in the quality of use, others were involved in sustainable quality of use level of the accounting curriculum. The

former group of accounting teachers should seek more effective alternatives to the established use of the curriculum. In addition, they are expected to actively coordinate with others to develop a sustainable quality of use of the curriculum because continued support helped most of the participating teachers to achieve routine levels of use which they sustained beyond the implementation of the curriculum (Tunks and Weller 2009). However, some of the teachers used the curriculum primarily because it was mandatory. Yet Hope (1995) found that a supportive, nonpunitive environment with no pressure on teachers to become users of technology promoted teacher use of technology. Therefore, the compulsion that teachers felt in implementing the curriculum might have led them to express their blatant disregard for the intrinsic value of the accounting curriculum.

Even though the accounting curriculum enjoyed some level of patronage, the fact that a significant number of accounting teachers had reservations about using it or failed to use it raises concern about the quality of its implementation. Owino's (2013) research confirms that negative attitude of teachers towards the curriculum is detrimental to the success of its implementation. Partial adoption is capable of militating against the core of the curriculum rationale and thereby defeat its purpose. This behavior of accounting teachers was noted by Kiplagat (2012) as the key among other factors influencing implementation of curriculum change. The lack of fidelity of implementation of the accounting curriculum implies disloyalty to the curriculum dictates; a situation that is injurious to the success of pre-tertiary accounting education in Ghana.

Some of the teachers failed to attain higher quality of use because the supply and dissemination of the curriculum materials were bedeviled with problems. Dirksen (2002), Graber (2005), Prugh (2004) and Yarberry (2004) all stress that resource availability heightens levels of use. Some accounting teachers who have copies of the new curriculum continue to refer to the old curriculum possibly because the new one was not as familiar to them as the old one.

Since the new accounting curriculum was replacing an existing one, it should have a comparative advantage to ensure its successful adoption. Indeed, some accounting teachers accepted the curriculum for use only after they did their own evaluation of it. This confirms Hall et al.'s (1999) observation that teachers pass a judgement on the worth of the innovation been proposed before they commit to it. If teachers' background knowledge failed to support them to deliver the curriculum change, it could be conceived that there has been no related

capacity building programme. If, however, there was one, then it failed in its impact Wang (2013) found that teachers' training had a profound effect on their levels of use.

### **Implications and recommendations**

Although fidelity is not absolute, the quest for quality accounting education cannot be compromised. This study has revealed that most Ghanaian accounting teachers have adopted and are implementing the accounting curriculum with some sustained quality. However, some are not able to generate the required standard of implementation and need attention. The following recommendations are offered to enhance implementation:

- On factors that may facilitate or militate against the quality of use of the accounting curriculum, this study recommends that curriculum leaders, instructional supervisors, school heads and the Ghana Education Service should make it their duty to provide appropriate interventions to address them. For instance, curriculum leaders should consider making the content of the accounting curriculum motivating enough to elicit compliance rather than compulsion.
- The solution to the problem of teachers not using the accounting curriculum is first to conduct a proper diagnosis that allows for determining whether/what appropriate capacity building programmes were lacking and should be organized to empower them.
- On the other hand, it might be that school heads and administrators need to inspire enthusiasm and show commitment to the delivery of the curriculum by granting necessary logistical and human support that teachers require to support programme implementation. School administrators must ensure that there is adequate supply of the curriculum documents. Finally, the heads of accounting or business departments should strengthen instructional supervision in schools after which feedback should be communicated to the accounting teachers to facilitate reflective practice.

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