A Mixed Methods Study on Beliefs and Practices Pertaining to Critical Thinking Among EFL Teachers in Philippine Public Schools: Implications for Policymaking[1]

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Abstract

This study aims to set directions for policy formulation on the integration of critical thinking (CT) in English for seventh grade students in Philippine public schools. Mixed methods were employed to analyze and compare quantitative and qualitative data regarding beliefs and practices of teachers with reference to integrating CT into teaching English. A semi-structured interview and a four-point Likert scale were simultaneously used, thereby producing a nested sampling. Descriptive statistics and thematic analysis for qualitative data were merged for analysis and comparison of both data strands. Qualitative results showed that Filipino English as a foreign language (EFL) teachers strongly regard CT as a crucial element in teaching English, specifically literature, to seventh grade students. However, one-on-one interviews indicated that these teachers have a narrow and insufficient understanding of the concept of CT and its relation to teaching and testing. Contrary to this, quantitative results revealed that, generally, these teachers strongly believe that they have a clear understanding of the term CT and its application in teaching and test construction. They expressed agreement on the need to have a clear set of guidelines for policymaking on how CT be understood and integrated into teaching and testing. Based on the analysis of integrated results, the need for a clear definition of CT be provided by education policymakers so that teachers have clarity of its meaning and how its components, namely, ability and disposition, be explicitly integrated both into teaching and testing of English for seventh grade students in Philippine public schools.

Resumen

Este estudio tiene como objetivo establecer directrices para la formulación de políticas sobre la integración del pensamiento crítico (PC) en inglés para estudiantes de séptimo grado en escuelas públicas filipinas. Se emplearon métodos mixtos para analizar y comparar datos cuantitativos y cualitativos sobre las creencias y prácticas de los maestros con referencia a la integración del PC en la enseñanza del inglés. Se utilizaron simultáneamente una entrevista semiestructurada y una escala Likert de cuatro puntos, produciendo así un muestreo anidado. Las estadísticas descriptivas y el análisis temático para los datos cualitativos se fusionaron para el análisis y la comparación de ambos hilos de datos. Los resultados cualitativos mostraron que los profesores filipinos de inglés como lengua extranjera (EFL) consideran firmemente que el PC es un elemento crucial en la enseñanza del inglés, específicamente la literatura, a los estudiantes de séptimo grado. Sin embargo, las entrevistas individuales indicaron que estos profesores tienen una comprensión limitada e insuficiente del concepto de PC y su relación con la enseñanza y la evaluación. Por el contrario, los resultados cuantitativos revelaron que, en general, estos profesores creen firmemente que tienen una comprensión clara del término PC y su aplicación en la enseñanza y la construcción de pruebas. Expresaron su acuerdo sobre la necesidad de tener un conjunto claro de directrices para la formulación de políticas sobre cómo se debe entender e integrar el PC en la enseñanza y la evaluación. Con base en el análisis de los resultados integrados, es necesario que los responsables de las políticas educativas proporcionen una definición clara del PC para que los docentes tengan claro su significado y cómo sus componentes, a saber, la capacidad y la disposición, se integren explícitamente tanto en la enseñanza como en las pruebas de inglés para estudiantes de séptimo grado en las escuelas públicas filipinas.

Introduction

Filipinos' critical thinking (CT) skills are deteriorating due to rote memorization pedagogy that has pervaded in the Philippine educational system from the Spanish colonial era up to the present time (Dela Cruz, 2012; Lugtu, 2019). Stapleton (2011) said, "Interestingly, the concern about deficient CT skills is not confined to any one country or region but appears to span education systems around the world" (p.14). Considering the crucial importance of CT for success and survival in this highly technological and fast-paced world, education stakeholders need to address this continuous decline of CT among Filipino learners. Marquez (2017) explained that despite the inclusion of CT in the curricula, this phenomenon persists because it is not being effectively taught in Philippine education due to teachers' emphasis on teaching of content over the development of CT. Furthermore, he has argued that teaching in the Philippines is focused on a didactic approach that has barely enough room for reflection. Cruz (2020) supported the Marquez's (2017) statement

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that most Filipino educators believe that the goal of education is to develop CT among learners, but education institutions nowadays focus more on providing teacher training on technology to the neglect of giving the latter training on the integration of CT into the curriculum.

Unfortunately, despite the centrality of CT to various dimensions of students' life, educational institutions, like the Department of Education (DepED), do not provide distinct policy on how CT must be understood and embedded not only in the English curriculum, but also in other content areas. These issues must be addressed so that policymakers in Philippine education may be guided on what necessary policies may be crafted pertaining to CT.

Considering that CT is a vague concept because the word 'critical' has various meanings (Johnson, 1992; Johnson & Hamby, 2015), in this paper it is hypothesized that EFL teachers in Philippine public schools find the concept of CT ambiguous which may give rise to numerous misconstrued interpretations and limited applications of CT by these teachers. This theoretical issue about CT needs substantiation to ascertain the future course of action with regard to incorporating CT into curriculum, training, and pedagogy.

Integrating CT into English and other academic disciplines needs to be done intentionally. CT cannot be automatically learned as a byproduct of teaching the content of the lesson (Halpern, 2007; 2014; Swartz, 2003). Its major components, such as ability and disposition, need to be deployed strategically and purposefully for students to acquire said competencies. Halpern (1998; 2014) emphasized that the ultimate goal of integrating CT into curricular topics is for students to transfer their learning in all facets of their lives. If teachers have no clear understanding of the concept, then they will not be able to integrate it effectively or explicitly. Thus, teachers need to understand the facets of CT for its effective integration into their lessons.

Unfortunately, "the question of what critical thinking is and how it is to be understood or defined remains both unsettled and unsettling" (Johnson, 2009 p. 60) due to several theorists who do not agree on any one specific definition. Despite these variations, there is a consensus among theorists that CT consists of two dimensions, ability and disposition (Ennis, 1987, 1996; Facione & Gittens, 2013; Fisher, 2011; Halpern, 2014; Hamby, 2014; Hatcher & Spencer, 2006; Johnson, 1992; 2009; Johnson & Hamby, 2015; McPeck, 1981; Paul & Elder, 2014; Siegel, 1988). The former refers to the cognitive component of thinking, like assessment of credibility and analysis of arguments whereas the latter pertains to behavioral dimension of CT like open-mindedness, deliberativeness, and fair-mindedness (Bailin & Battersby, 2016; Siegel, 1988). Each dimension is a necessary component for one to be able to think critically on certain issues (Ennis, 1987; Hamby, 2014; Johnson & Hamby, 2015; Siegel, 1988). Norris and Ennis (1989) argued that "the focus of critical thinking is a *decision about what to believe or do*" (p. 4) which emphasizes evaluating statements and actions.

This study investigates Philippine EFL teachers' beliefs and practices in CT for purposes of setting directions for policy formulation. To do this, a survey questionnaire and semi-structured interviews with parallel questions were used as sources of data to determine the convergence and divergence of their results. Based on the merged findings yielded by both qualitative and quantitative sets of data, eight propositions are recommended for policymaking directions in DepED's EFL curriculum for seventh grade students.

Literature Review

Teachers' beliefs about CT

It is interesting to note that a number of studies similar to the present investigation have been conducted. One of these was done by Choy and Cheah (2008) who used open-ended questions to explore Malaysian teachers' perceptions of CT, their students' ability to think critically, and the role teachers played when integrating it into their lessons. As indicated in their findings, these teachers believed that CT was the ability of the students to rephrase the concepts that they had learned inside the classroom. They also related it to higher-order thinking skills, such as analyzing, evaluating, and creating. Their perceptions regarding CT were narrow and limited. Furthermore, these teachers perceived that their students did not enjoy activities that employ CT; hence, they showed reluctance to take part in tasks that required it. These teachers believed that they had a significant role to play in teaching students to think critically, but they found teaching CT difficult because of the vagueness of the concept.

Similarly, Stapleton (2011) conducted an exploratory study on the beliefs of Hong Kong high school teachers from different academic disciplines. He found that these teachers lacked a precise understanding of what CT really means and how CT could be methodically integrated into their lessons. They seemingly viewed that their students were not good at CT. Further, these teachers strongly believed that CT should be an integral part of the curriculum; hence, they expressed a desire for more training on the implementation of

CT in the classroom. Stapleton's findings set the direction for changes in Hong Kong education policy regarding CT and its integration into different high school curricula.

Stapleton's (2011) study is comparable to the present study; however, the former used two sets of data, namely, quantitative and qualitative, which were analyzed separately without any integration. Had the two strands of data been merged and compared, the findings could have produced a more complete understanding by looking into points of convergence and divergence as the basis for the policy change. These methodological shortcomings are addressed in the present study with the aim of setting the direction for policymaking. Further, Stapleton's study did not specify any clear criteria for selecting participants in both data strands. The number of participants was too small to generalize the quantitative results to the target population. Only five teachers from different content areas were interviewed which served as data for the qualitative strand. It would have been more advisable if a larger number of participants of the target population were considered because Stapleton's study focused on policy change and its significant impact on the curriculum.

Using a case study, Li (2016) explored Chinese secondary school EFL teachers' conceptions of thinking skills, attitudes towards teaching thinking skills in their subject, and endeavors to incorporate CT skills into the classrooms. The study revealed that these teachers had varied and insufficient understanding about the concept of thinking skills and demonstrated positive attitudes towards the integration of thinking skills into language classrooms. However, they believed that thinking skills are more suitable for integration into reading, science, and mathematics. Furthermore, these EFL teachers put more emphasis on the development of linguistic knowledge, such as vocabulary and grammar, of their students in their EFL classes. Since Chinese education is examination-oriented, these teachers focused on teaching for examination and found it difficult to infuse thinking skills into their classroom discussions.

The present study may contribute to helping bridge a research gap by addressing what Li argued about there being a dearth of studies concerning thinking skills in relation to EFL studies in the secondary school context. Findings of the present study may lead researchers and curriculum developers to determine the breadth and depth of Filipino EFL teachers' beliefs and practices pertaining to CT. Using semi-structured interviews, Ramis (2018) investigated how CT was defined by interior-design female instructors in Saudi Arabia. She also examined instructors' perceptions and attitudes towards it. Three types of data were gathered using semi-structured interviews. These were the participants' understanding of CT concepts, strategies used in classes, and potential barriers encountered in teaching CT to students. The results revealed that, generally, these instructors lacked understanding of the term CT. Further, results showed that the preferred method used in the class was rote learning. The participants expressed that the five obstacles that prevented them from utilizing CT were students' lack of interest to think critically, instructors' interest and vague idea of CT concept, Saudi Arabia's society and culture that were not conducive to CT, learners' lack of proficiency in English language as means to express opinions, and the country's education system that did not emphasize CT.

In a similar vein, using a qualitative approach, Hasni et al. (2018) examined the beliefs of two Malaysian instructors about CT and their classroom practices. One participant was an EFL teacher and the other a graphic design instructor. The English teacher believed that CT was thinking about extraordinary ideas regarding certain issues and applying them in other similar contexts whereas the graphic design instructor associated CT with analysis and creativity. The two seemed to relate CT with the higher-order thinking skills that are based on Bloom's taxonomy. The study found that their conceptualization of CT as analyzing arguments, justifying conclusions, and creating something worthwhile matched their classroom practices.

Using a focus group discussion, Yuan and Stapleton (2020) investigated Chinese student teachers' concept of CT, implementation of CT in an EFL classroom, and challenges in integrating CT into an EFL curriculum. The study found that the participants had a limited understanding of CT due to the lack of systematic and sufficient training in CT and its integration. This lack of essential training resulted in their limited professional competence to teach CT, making it challenging for them to use it in the classroom. Aside from having unclear perceptions of CT, the examination-oriented culture prevalent in China made it difficult for these participants to focus on teaching the content to the neglect of integrating CT into their lessons.

Notably, the qualitative research studies (Choy & Cheah, 2008; Hasni et al.; 2018, Li, 2016; Ramis 2018; Stapleton, 2011; Yu and Stapleton, 2020) focused on beliefs about CT of Asian teachers from different countries. To date, no study has been conducted on the beliefs and practices of Filipino secondary school teachers of English with the aim of setting the direction for policy formulation using mixed methods as a research approach. The present study hopes to bridge this research gap. As asserted by Li (2016) there is

"a notable absence of studies conducted in both primary and secondary school contexts" (p. 275) concerning thinking skills in relation to EFL studies.

Approaches to teaching CT

Concerning instruction of CT, Ennis (1992) offers explanations of the four approaches to teaching it. The first is teaching it as a stand-alone subject. The second is the immersion approach, which integrates its principles implicitly, whereas the infusion approach, the third one, explicitly embeds its principles into the content subject. The fourth one is the mixed approach, a combination of the general approach with the combination of either infusion or immersion.

Al-Ghadouni (2021) summarized different studies reviewing the approaches to teaching CT. Based on the review conducted, Martin and Halpern (2011) found that the infusion approach was more effective and yielded better growth of students' CT than the immersion approach. Among the approaches, the immersion approach is the most frequently used but has the smallest effect in enhancing students' CT. From their review, Abrami et al. (2008) and Wang (2017) both concluded that the most effective approach for teaching CT is the mixed approach. This implies that when choosing between infusion and immersion as approaches to embedding CT in EFL instruction, a curriculum planner may opt for infusion. However, when choosing among the four approaches to teaching CT, the mixed approach seems to be the most effective.

Considering the effectiveness of infusion over immersion, Lopez et al. (2023), using a scoping review method, found that generally Filipino teachers from different disciplines and grade levels adopted the immersion approach in integrating CT into teaching subject matters. This indicates that these teachers focused more on teaching the content than giving equal emphasis to explicitly teach the CT processes that serve as tools in mastering lesson contents.

Transfer of CT training

The ultimate goal of any instruction designed to develop CT among learners is transfer of training (Halpern, 1998; 2014). Regarding transfer of learning of CT from one domain to another, Swartz (2003) provided a transfer map that delineates two kinds of teaching for transfer, near transfer and far transfer, which are foremost in an infusion lesson. Near transfer occurs when a teacher deliberately and explicitly applies CT principle to teaching subject matter similar to the main topic of the lesson. This is immediately followed by far transfer in which a teacher again applies the same CT principle for teaching a topic that is quite different from the original subject matter in which CT concept was initially learned. These two kinds of transfer show that these skills can be applied and transferred to various academic domains and other human activities. Halpern (2014) argued that transfer of training is the real goal of CT instruction.

Recognizing the problem that CT learned inside the classroom does not appear to transfer well to other contexts, Bowell and Kingsbury (2015) offered three explanations to why students rarely transfer their learning of CT from classroom activities to real-life situations. First, they do not recognize that certain situations call for the application of its principles. Second, students lack intellectual virtues, such as valuing significant truths and acting on true beliefs as motivation, to apply CT skills. Third, they are inspired to learn these skills in the classroom just to perform well on examination, but not for purposes of applying them beyond classroom situations.

Further, there are mixed explanations for what improves transfer of thinking skills from one domain to another. However, the length of a CT course is one feature that consistently appears in various studies (Bowell & Kingsbury, 2015). Behar-Horenstein and Niu (2011) argued that a CT course that lasts for five months or more is more likely to have higher impact on students leading them to apply CT to various domains they encounter. This is one area in the field of CT that should be addressed by future researchers. Regrettably, Lopez et al. (2023) mentioned that there is no study that has been done by Filipino researchers on what improves transfer of learning CT skills from one discipline to another. Due to the centrality of transfer in the area of CT, questions pertaining to this are included in the present study.

Thinking skills in DepED's EFL classroom examination

After carefully examining the teacher-made quarterly examinations together with corresponding table of specifications (TOS) as well as the Department of Education K to12 Curriculum Guide (2016) in English for seventh grade it was found that each quarterly examination had 50 items which were mostly in multiple-choice-question (MCQ) format. The TOS is a tool usually in tabular form used by teachers in identifying the competency and level of complexity using revised Bloom's taxonomy of every test item to be included in periodical examinations. Each item, as reflected in teacher-constructed TOS, is based on learning

competencies set by DepED and is classified by teachers as remembering, understanding, applying, analyzing, evaluating, and creating. Noticeably, most of the generated test items shown in their TOS are categorized under remembering and understanding. Samples of MCQs, as in some of the examination papers, ask examinees to identify the meaning of the underlined word through context clues and to identify the figurative language used in a given sentence. Each item was classified as remembering or understanding, respectively and had four possible options.

A very few teachers constructed quarterly examinations that include essay-type questions worth five-points usually placed in the last part of the examination paper. Sample essay questions requires students to write four to a five-sentence paragraph on the most memorable place they visited, summarize a given text, and other writing activities which did not require examinees to think critically. Regrettably, no precise rubric was provided on how the composition should be scored by the evaluator.

Notably, the curriculum guide had no explicit provision on how CT was to be included in the test. However, there are learning competencies included that may be considered CT skills, like "express one's beliefs/convictions based on a material viewed, raise sensible, challenging, thought-provoking questions in public forum/panel discussions, etc., and react to what is asserted, or expressed in a text" (Department of Education, Curriculum and Instruction Strand, 2020, p.138),, which could hardly be tested objectively.

This implies that CT was not given much emphasis in test construction considering the types of test used, the items constructed that typically called for recall and comprehension, and the absence of clear provision in the curriculum guide on how CT needed to be incorporated into the assessment.

Overall, education policymakers in the Philippines may consider adopting infusion over immersion as an approach in teaching CT, specifically in the EFL context. However, a pedagogical structure is necessary on how CT be effectively implemented and integrated into subject matters. Considering the significance of teaching for transfer, EFL curriculum developers need to think of a process as to how this could be done so that teachers may be guided about the process. Inclusion of test items that make students think critically are equally important objectives for DepED . These three essential issues are examined in the present study.

Purpose of the Study

 The purpose of this study is to analyze and compare both quantitative and qualitative data strands regarding beliefs and practices of public-school EFL teachers in the Philippines on the integration of CT into English for seventh grade students. To achieve clarity and illumination of EFL teachers' beliefs and practices regarding CT, a qualitative approach, through the use of in-depth interviews, was utilized. For purposes of generalizing the findings, a quantitative method was simultaneously employed. Convergent design was used to achieve synergistic understandings of the phenomenon. The meta-inferences drawn from the integration of both data strands might lead education leaders in the Philippines to set directions for policymaking regarding explicit integration of CT into EFL.

The following questions specifically addressed the major goal of this study:

1. *Based on the survey, the goal is to understand the extent to which seventh grade English teachers show agreement or disagreement in their beliefs and practices about the following dimensions:*
    a. *the definition of CT*
    b. *students' CT skills*
    c. *integration of CT in English*
    d. *teaching of transfer skills*
    e. *the role of CT in the teaching of English*
    f. *the prescribed EFL textbook*
    g. *test construction*
    h. *a need for policymaking on the integration of CT in English*
2. *Based on in-depth interviews, the study aims to highlight beliefs and practices these teachers hold towards the aforementioned eight topics.*
3. *Based on the merged results of quantitative and qualitative strands of data, what recommendations can be made regarding the integration of CT into seventh grade English curriculum in Philippine public schools?*

Method

Research design

A mixed methods approach, specifically, the convergent parallel design, was used in the study. Its purpose, as argued by Creswell and Plano Clark (2018), is to merge the individual results of both qualitative and

quantitative strands of data to determine how they fit together during the interpretation. This determined how the two datasets converged and diverged to provide more comprehensive and synergistic utilization of data as the basis for formulation of policy regarding CT integration into the English curriculum.

Participants

The seventh grade English teachers in the secondary Schools Division of Bulacan were the participants in the study. There were 86 schools divided into four educational districts and Technical-Vocational schools. Nested sampling was used in which samples for both qualitative and quantitative strands were identical, which is inherently the mixed methods sampling procedure (Bazeley, 2006). Samples for the qualitative strand were obtained from the larger samples of the quantitative strand.

In order to obtain information-rich sources of data for both quantitative and qualitative strands, the potential participants had to meet the following criteria: they needed at least a Bachelor's degree in Education with specialization in English Language Teaching or any English language-related discipline; they must have had experience teaching a seventh grade English course for at least three consecutive years; they must have been teaching English for grade seven at the time of the collection of data; they must have been public school teachers in the Secondary Schools Division of Bulacan, and they must be willing to participate in the study.

Concerning the quantitative data, the Raosoft sample size online calculator was utilized in computing the minimum sample size requirement for this study. The minimum recommended sample size of survey was 172 based on the 5% margin of error, 95% confidence level, and 308 population size. The number of samples gathered for the quantitative strand was 181.

As regards qualitative data, twenty-one public school teachers were interviewed. Data saturation was applied. This means that when no new information is provided by the participants during interviews, the qualitative data collection may stop. Merriam and Tisdell (2016) argued that "the rule of thumb is that the data and emerging findings must feel saturated; that is, you begin to see or hear the same things over and over again, and no new information surfaces as you collect more data" (p.246-248).

Many of these participants were asked about who they could recommend as potential participants. Therefore, a combination of purposeful and snowball sampling strategies was utilized.

Instruments and data collection

Two research instruments were used, namely, interview protocol and survey questionnaire using parallel questions to ascertain beliefs about and practices around CT of EFL teachers. The details are presented in Table 1 below. Both strands of data were simultaneously collected. However, qualitative strand was given more emphasis than quantitative strand due to the illumination provided by the former in setting the direction for policy formulation.

Neither set of data was sufficient to set the direction for policy formulation. The quantitative results provided a set of findings generalizable from sample to population. Contrastingly, the qualitative results provided richer understanding and interpretation of the concept being investigated by way of having the participants provide the detailed information that quantitative data would have failed to capture. Having merged these two strands to investigate their points of convergence and divergence, the results synergistically yielded baseline information for policymaking.

Trustworthiness of interview protocol and validity and reliability of survey questionnaire

In order to establish the trustworthiness of the interview protocol and the validity of the survey questionnaire, three EFL professors and three research professors scrutinized the list of interview questions and survey questionnaire for their clarity and sufficiency in addressing the research problem. They also examined the parallelism of both research instruments.

Further, the list of interview questions was field-tested with two seventh grade teachers who satisfied the preselected criteria but were not included as participants. As a result, some questions were modified based on the outcomes of the field tests. The final form of interview protocol consisted of eight open-ended questions.

The survey questionnaire was also field-tested on seven seventh grade teachers who satisfied the identified criteria but were not part of actual research samples. As soon as they finished answering the survey questionnaire, these teachers were interviewed regarding the clarity of the items in the questionnaire. Revisions followed after conducting the field test. The final form of the survey questionnaire consisted of

eight Likert-scale items. The computed reliability coefficient was 0.87 using Cronbach alpha. This suggests that the survey questionnaire is reliable.

Survey questionnaire

A survey questionnaire created in *Google Forms* was sent out through emails and other social media platforms. All responses of the participants were automatically stored and organized in *Microsoft Excel*.

In-depth interviews

The researcher used in-depth semi-structured interviews in collecting textual data. Virtual face-to-face interviews using *Google Meet* were video-/audio-taped. Each participant was informed beforehand about the audio recording for the entire duration of the interview. Taglish (combination of Tagalog and English) was the language used by the participants during interviews, for it is the language they were most comfortable with. Each recorded interview lasting 40-50 minutes was transcribed verbatim immediately after it concluded.

Data analysis techniques

Concerning quantitative data, mean and standard deviations were computed for analysis pertaining to the level of agreement and disagreement of the participants to each survey question.

As regards qualitative data, thematic analysis was used in analyzing textual data. Responses from eight open-ended questions were transcribed verbatim and were analyzed thematically. Inductive coding was done in which results were categorized to arrive at the themes.

Both strands of data were merged for analysis and comparison, which involves looking at the nature of integration. There are four possible outcomes: concordance, complementarity, expansion, and discordance (Creswell & Plano Clark, 2018; Fetters et al., 2013). Concordance occurs when both datasets confirm the results; complementarity happens when the results of two data strands are different, but interpretations do not contradict each other; expansion shows overlapping and non-overlapping findings of two strands of data; and discordance occurs when findings of both qualitative and quantitative data contradict each other (Fetters, 2020). A side-by-side joint display (Guetterman, 2019) was utilized for interpretation and reporting.

Member checking was done by sending back the verbatim interview transcript to every participant for comments and suggestions. Phone calls were also made to some participants for some clarifications.

Ethical considerations

The participants' sensibilities and interests were the primordial considerations in this study. Participation was voluntary. All the data gathered were treated with utmost confidentiality and anonymity. Each participant was given a pseudonym for confidentiality.

Before conducting the interview, each participant was oriented regarding the rationale for doing the interview. Informed consent was obtained from every participant prior to the interview.

Participants were informed that the quantitative and qualitative data gathered would not cause any harm or damage to anyone or any institution but would be of help in setting direction for further improvement of EFL curriculum for seventh grade students in Philippine public schools.

Results

This study used an independent data analysis approach (Fetters, 2020) in presenting and analyzing separately both quantitative and qualitative strands of data. Therefore, a separate section was allocated for comparison of findings for both strands of data for an overall interpretation.

A side-by-side joint display (Guetterman, 2019) as illustrated in Table 1 below was used as basis for interpretation and reporting of the results of the two strands of data. Integration was done by merging the two databases for analysis and comparison (Creswell & Plano Clark, 2018; Fetters et al., 2013). Four possible combinations of fit, namely, concordance, expansion, complementarity, and discordance (Fetters, 2020) were considered in doing the analysis.

Quantitative Questions and Findings Using Likert Scale Questionnaire	Qualitative Questions and Findings Using Semi-Structured Interviews	Interpretation of Merged Results of Both Types of Data Using Combinations of Fit (Fetters, 2020)
1. I clearly understand what the term critical thinking means. M=3.70 (strongly agree) SD=0.54	1. What does the term "critical thinking" mean to you? *Participants readily provided their definition of CT by associating it with higher-order thinking skills, reasoning, and metacognition.*	1. *(Concordance) Both strands of data confirm each other; however, the merged data reflect the narrowness and insufficiency of participants' understanding of CT.*
2. Generally, seventh grade students are not good at critical thinking. M=2.60 (agree) SD=0.70	2. Do you think that grade seven students in general are good critical thinkers? Explain your answer. *Seventh grade students lack CT skills. They have difficulties answering high-level or open-ended questions.*	2. *(Concordance) Both types of data confirm each other; qualitative findings imply that participants seem to gauge students' CT skill based only how the latter deal with higher-order thinking skills (HOTS).*
3. I explicitly integrate critical thinking in teaching my daily lessons. M=3.33 (agree), SD=0.59	3. Do you integrate critical thinking in your daily lesson? Explain your answer. *They integrate CT in their lessons by using high-level or open-ended questions.*	3. *(Concordance) Both strands of data confirm each other; qualitative findings suggest that they seem to employ immersion approach as way of CT integration.*
4. I teach for transfer of critical thinking in my daily lesson. M=3.27 (agree) SD=0.59	4. Do you teach for transfer/application of critical thinking to other topics that are unrelated to the previous topics in which critical thinking principles were originally learned? Explain your answer. *They teach for transfer in two ways: by either relating the current topic to the previous topic or relating the present topic to other topics from other curricular areas.*	4. *(Concordance) Both strands of data confirm each other; qualitative findings indicate that their teaching for transfer seems to focus on content rather than on ability and disposition aspects of CT.*
5. Strengthening the role of critical thinking to English curriculum of seventh grade students is essential. M=3.71 (strongly agree) SD=0.56	5. Do you think it is necessary to strengthen the role of critical thinking to the teaching of English to grade seven students? Explain your answer. *It is necessary because CT prepares students both for academic and non-academic issues that they may encounter.*	5. *(Concordance) Both strands of data confirm each other that CT is important in different facets of human life; hence, the perceived need for strengthening its role in teaching EFL be considered in policymaking.*
6. The activities provided in the prescribed textbook promote critical thinking for seventh grade students. M=3.30 (agree) SD=0.67	6. Do you think that the activities provided in the prescribed EFL textbook of DepED call for seventh grade students to think critically? Explain your answer. *DepED textbook provides activities that require CT, namely, creative thinking and answering high-level or open-ended questions.*	6. *(Concordance) Both types of data confirm each other; qualitative findings imply that participants' limited understanding of the concept CT is reflected on how they consider a textbook that consists of CT activities.*
7. I integrate critical thinking in the examinations that I prepared. M=3.37 (agree) SD=0.61	7. Do you integrate critical thinking in preparing your quarterly examination questions? Explain your answer. *They use MCQ that consists predominantly of recall items and small number of items that call for HOTS. Open-ended essay question is used sparingly.*	7. *(Expansion) Both strands of data confirm that CT is integrated, to a certain extent, in preparation of quarterly examinations; however, examination is predominantly rote recall. Essay question is infrequently included.*
8. A clear set of guidelines for policymaking is needed regarding the concept of critical thinking along with its integration in EFL curriculum for seventh grade students. M=3.22 (agree) SD=0.69	8. Is there a need for a set of guidelines for policymaking regarding the integration of CT in EFL curriculum for seventh grade students? Explain your answer. *The recommended propositions are: explicit integration of CT in curriculum guide, activities in the textbook that promote CT, provision of supplementary CT teaching-learning materials, evaluation of teaching-learning materials, evaluation of the curriculum guide, periodic assessment of students' CT level, additional stand-alone subject for CT, and trainings for teachers on explicit integration of CT in English curriculum.*	8. *(Concordance) Both types of data confirm each other that there is a need for a set of guidelines for policymaking on the integration of CT in EFL curriculum for seventh grade students. Some recommendations for policymaking are suggested.*

Note: For quantitative data using Likert scale, the range of answer options are as follows: 4-strongly agree, 3-agree, 2-disagree, 1-strongly disagree

Table 1: A side-by-side joint display on beliefs and practices of Filipino EFL public school teachers

Quantitative results

The analysis of the quantitative data provided information regarding the generalizability of the participants' reflections of their beliefs and practices to the larger population of the school district. The Likert-type questionnaire captures this analysis in the first column of Table 1 above. That column of the Table above shows the means and standard deviations of the eight items in the questionnaire that could be classified as either beliefs or practices. Items 1, 2, 5, 6, and 8 were classified as beliefs whereas items 3, 4, and 7 were considered practices. Participants, as shown in item 1, have indicated strong agreement that there is a clear understanding about what the CT term means with a high mean (3.70) and lowest standard deviation (0.54). This implies that participants perceive themselves as knowledgeable about the concept of CT. Further, participants have shown a strong agreement on item 5 regarding strengthening the role of CT in the English curriculum for seventh grade students with the highest mean (3.71) among the items and low standard deviation (0.56). This suggests that CT is considered an essential component in teaching/learning of English in addition to communicative competence and multiliteracies (Department of Education K to 12, 2016) as ultimate goals in EFL curriculum of DepED K to 12 programs.

 The rest of the items indicated a collective agreement among the participants. They perceived that seventh grade students are not good at CT (M= 2.60), and the activities provided in the textbook promote it (M= 3.30). Interestingly, the participants indicated that they do the integration of CT (M= 3.33), teach for transfer (M=3.27), and integrate CT in their examinations (M= 3.37). Participants also displayed a collective agreement that a set of guidelines is needed regarding the integration of CT into English curriculum (M= 3.22).

With the foregoing quantitative findings, one may have the impression that the participants already have adequate understanding of what a CT is and how CT can be effectively integrated into lessons along with teaching for transfer. By just relying on the quantitative data, education leaders may be led to think that there is no need for a set of policies on raising awareness about the concept and significance of CT or designing a curriculum that embodies it. In order to understand further the participants' perspectives regarding CT, a set of qualitative data was incorporated to substantiate the findings from the quantitative analysis as well as to determine the nature of data integration.

Qualitative results

Interview questions utilized in the qualitative strand can be found in the second column of Table 1 above. Twenty-one participants shared their beliefs and practices on CT and its relation to classroom practices.

Definition of CT

Three themes emerged regarding the definition of CT: higher order thinking skills, reasoning, and metacognition. Sixteen participants associated CT with higher-order thinking skills. They explicitly mentioned the cognitive terms associated with Bloom's taxonomy such as understanding, applying, analyzing, evaluating, and creating which are presumably higher forms of learning than learning based on recall. They considered CT as predominantly cognitive skills that could be used in learning English specifically when dealing with the literature part of a lesson. Generally, participants reiterated that students who can apply Bloom's cognitive skills were critical thinkers. They associate these thinking skills with CT.

The definition given by T14 captures the components of Bloom's taxonomy. She argued that:

> *Critical thinking is a process of understanding, analyzing, evaluating, and applying a particular concept which directs one's beliefs and actions.*

It is important to note that CT consists of two major aspects: ability and disposition. Each of these aspects is necessary but not a sufficient condition for considering an individual a critical thinker. Both abilities and dispositions must be jointly acquired for one to be able to think critically (Bailin & Battersby, 2016; Ennis, 1987, 1996, 2013; Fisher, 2011; Halpern, 2014; Hamby, 2014; Hatcher & Spencer, 2006; Johnson, 1992; 2009; Johnson & Hamby, 2015; Paul & Elder, 2014; Siegel, 1988). Hence, CT ability and disposition go together when one attempts to teach the concept, which is not reflected in the definitions provided by the participants.

Notably, one of the 21 participants defined CT as metacognition. T5 expressed that CT was:

> *Self-guided and self-disciplined thinking which make students aware of how their mind works when they study. CT is metacognition that prepares students to become independent learners.*

In other words, T5 associated CT with self-monitoring which guided students in their learning process. This concept of CT as metacognition is congruent with the notion of Paul and Elder (2014) that CT occurs when

the learners start thinking about their thinking with a view to improving it. Further, Ennis (2013) argues that metacognition is one of the auxiliary CT abilities that one applies when thinking critically.

Four participants explicitly emphasized that CT was about the ability to answer high-level questions. Students, according to them, could be called critical thinkers if they could answer questions that demanded judgment formation and other related problem-solving questions. This can be related to Facione and Gittens' (2013) CT taxonomy that focuses on analysis, interpretation, explanation, inference, and evaluation, which are the ability components of CT.

Generally, participants seemingly regarded CT as an ability-dominated concept to the neglect of an equally important CT component, which is disposition. This view suggests that they had a limited and narrow conception of what CT was all about. This is supported by the fact that none of the participants mentioned the significance of that element of CT. Some examples of CT dispositions are open-mindedness (Bailin & Battersby, 2016; Facione, 1990; Johnson, 2015; Norris & Ennis, 1989; Ennis, 1996), deliberativeness (Costa, 2008), strict adherence to and respect for reasons (Siegel, 1988), willingness to accept criticism (Johnson, 2009; 2015), intellectual persistence (Halpern, 2014), and fair-mindedness (Paul & Elder, 2014), among others.

CT status of seventh grade students in EFL class

Sixteen participants considered seventh grade students in general as non-critical thinkers. Three recurring ideas emerged from the interviews conducted: lack of higher-order thinking skills used for processing information, a presence of impulsivity, and the absence of motivation to think well. T3 expressed her views on the CT status of her seventh grade students:

> Most of them cannot comprehend; they even lack of analytical and evaluation skills which are necessary for critical thinking. These students were more of just sentence level and literal level. That is why I think generally, seventh grade students lack critical thinking.

T7 expressed similar views that corroborated that of T3:

> I guess they lack skills related to critical thinking like comprehension skills and evaluation skills. Most of them cannot explain or elaborate ideas. Most of them do not know how to give or support details every time I ask them to explain their answers; they cannot support them. That is why I think that they are not good critical thinkers.

Interestingly, T14 associated CT with attitude which corresponds with that of T16:

> These students are so much dependent on social media. They easily react to what they see and read from Facebook. They do not think anymore; they do not consider the total situation; they are too impulsive. They do not think of the possible consequences of their actions.

Furthermore, T21 expressed her view that her seventh grade students generally were not critical thinkers due to their lack of motivation to think critically. She seemed to think that students without the motivation to think critically would not be able to utilize their ability to deal with certain issues. Only T21 associated CT with motivation.

On the contrary, T2, T5, T17, T18, and T20 considered that seventh grade students generally were critical thinkers. T2 shared that these students could think critically if given the time to process information. T2's view expressed optimism that these students could be critical thinkers if teachers exercised more patience in teaching them to think reflectively. Further, T5 expressed that these students were resourceful in looking for information due to their being technology savvy. The view of T5 implies that having digital know-how may be considered part of being a critical thinker. She seems to consider that these students were well-informed individuals.

Moreover, T17 and T18 shared similar views that their students were capable of expressing their opinions on certain issues but had difficulties using English. This suggests that the students had something to share during discussion; however, their low level of EFL proficiency makes it difficult for them to do so. T20 said that these students could think critically as long as they were trained to do so. This indicates T20's optimism that students could be critical thinkers.

The five participants who claimed that their students could think critically had one thing in common: All of them taught a special class that consisted of students who had excelled in elementary school. However, these participants apparently emphasized the ability aspect of CT to the neglect of a disposition aspect which is an equally essential element of CT.

Notably, T14 and T21 were the only participants who referred to managing impulsivity and motivation as characteristics of critical thinkers. This behavioral notion is a component of CT disposition, as explained by Siegel (1988) and Costa (2008). Unfortunately, the participants mentioned the two attributes only once and

did not associate those traits as responses to other questions related to this item during the interview. This implies that their limited notion of CT was predominantly associated with ability that only calls for higher-order thinking skills. They were seemingly unaware of the equally essential element of CT concept which is disposition.

Integration of CT in English for seventh grade students

The immersion approach is the concept that emerged from the qualitative data pertaining to the integration of CT by the participants into their daily lessons. Participants utilized immersion approach in embedding CT by using high-level or open-ended questions.

Notably, all 21 participants claimed that they integrated CT in teaching English. They had a similar notion that the way to integrate it was by using high-level or open-ended questions, specifically in teaching Philippine literature. Generally, they asked students to make predictions, express opinions regarding relevant issues, justify answers, analyze situations, solve a problem, weigh options, ask relevant questions, ask hypothetical questions, and seek some reflections on the topics. The participant teachers expressed that they focused on the competencies stipulated in the curriculum provided by DepED.

Unfortunately, no participant mentioned embedding CT explicitly, like judging the credibility of sources to be integrated explicitly into their lessons. Furthermore, no participants expressed their views on integrating CT disposition, like overcoming resistance to criticism (Johnson, 2009; 2015), into teaching English to seventh grade students.

The approach of embedding CT skills illustrated in the two preceding paragraphs can be categorized as immersion because the subject matter is discussed in a very deep and engaging manner without explicit integration of CT principles (Ennis, 1992). The emphasis is on teaching the content over the enhancement of CT (Marquez, 2017). Regrettably, Marin and Halpern (2011) explained that explicit CT instruction, which is called the infusion approach, is more effective than immersion approach, which according to Lopez et al. (2023), is predominantly adopted in EFL Philippine classroom.

Teaching for transfer

Two themes emerged from the textual data regarding teaching for transfer. In order to teach for transfer, the participants either relate the present topic to other topics from other curricular areas, like science and history or relate it to other topics previously discussed in EFL class using higher-level questions. This suggests that they focused on teaching the connections between and among contents and not on teaching for transfer regarding the deliberate and explicit application of specific CT aspect from one topic to other topics within a particular course. As was previously stated, a transfer map designed by Swartz (2003) may be applied as a format in teaching for transfer.

Sixteen participants claimed that they taught for transfer while five participants (T6, T7, T8, T17, and T20) said that they did not teach with that goal in mind. Evidently, the participants did not emphasize CT competency as a way to teach for transfer but rather focused on the content of the lesson in addition to the competencies delineated in the DepED curriculum guide.

 T17 shared his perspective that is quite different from the rest of the participants:

> *How could I possibly claim that I integrate CT in my lesson when I do not have much knowledge and background about CT. I have no solid idea what CT is all about. Having that predicament, I find it difficult for me teaching for transfer of CT in English language learning. All I know is that when I ask my students open-ended questions, they are led to do critical thinking.*

The sentiments shared by T17 may indicate that there may be many teachers that have no clear idea about the meaning of CT much less how to integrate CT into the lesson and transfer specific CT aspects from one context to other totally different contexts. Halpern (2014) emphasized that the goal of any CT instruction is to teach students to transfer the learning of CT from academic contexts to out-of-the-classroom issues. This suggests that educational institutions must equip teachers with strong foundational knowledge on CT concept for teachers to effectively do the integration and transfer of CT.

Furthermore, Halpern (1998, 2007, 2014) argued that teaching students to acquire CT skills is of little value if there is no provision for teaching for transfer. The ultimate goal of CT instruction is to teach students to learn to recognize competently when a specific CT skill is suitable in a circumstance which is totally different from the original context in which it was learned. Halpern's statements suggest that deliberate emphasis must be on teaching for transfer when integrating CT into teaching EFL.

Noticeably, the majority of the participants stated that they readily did the integration and transfer of CT when teaching literature rather than in teaching grammar. They find that CT was suitable for and applicable

to discussing human experiences, like the different types of characters encountered in short stories. Discussion is led with hypothetical questions like *If you were in the shoes of the main character in the story, how would you deal with the situation?* and other higher-level questions around these encounters. The participants associated CT with the teaching of reading, specifically the teaching of short stories and poems.

Strengthening the role of CT in EFL

The academic and out-of-the-classroom benefits that students gain from learning CT are the concepts that emerged pertaining to the need to increase the role of CT in EFL curriculum. The participants explicitly acknowledged the value of CT in various facets of human life.

Twenty participants expressed affirmative responses that there was really a need to increase the role of CT for teaching English to seventh grade students in public schools. They believed that CT was essential for dealing with both academic and non-academic concerns of these students.

However, one participant (T4) expressed that there was no need to increase the role of CT because of her apprehension that seventh grade students may find it difficult to deal with CT; for her, it was a complex construct.

> *Since seventh grade students are still in a transition stage, I believe that the competencies set by DepED are sufficient. Adding more to that specifically CT, will be very burdensome intellectually on the part of my students.*

Generally, the participants consider CT important for not only dealing with different situations that students encounter daily but also for success in different fields of endeavor. Findings suggest that providing guidance to learners regarding acquisition of CT skills is a necessary role which teachers may assume to make their students lead a more fulfilling life.

Activities provided in seventh grade English textbook of DepED

Two themes have emerged regarding the participants' perspectives on activities provided in seventh grade English textbook. These are creative thinking and open-ended questions which are the emphasis of activities in the prescribed textbook.

All 21 participants provided the common response that the English textbook for seventh grade students called for students to think critically. The textbook activities which participants mentioned were categorized into two themes: creative thinking and answering open-ended questions. The activities for the former were: predicting outcomes, providing the theme of the story, writing essays that deal with certain issues, asking students to provide different endings in a story, using graphic organizers and Venn diagrams in some activities, using role playing and travelogues, using panel discussions and infographics in dealing with social issues, and making brochures by using information provided on the internet, among others. Moreover, the activities that dealt with open-ended questions were: comparing and contrasting characters in the story, connecting the story to social issues, asking students to express their ideas or opinions on certain issues, analyzing situations, drawing conclusions, interpreting literary pieces, using questions that start with how and why in literary selection, relating students' experiences with those of the characters in the story, asking students to give their point of view on certain issues, and asking students to explain something like proverbs by relating them to their lives, among others.

As has been mentioned, all participants seemed to relate CT to the ability component without considering the disposition aspect of CT. They consistently expressed that CT could be integrated more easily into teaching literary selections than into English grammar. The former necessitates reflective judgement based on the situations delineated in short stories and other literary genres whereas the latter focuses on application of linguistic rules.

Integration of CT in preparing examination

Twenty participants expressed their agreement that they integrated CT into their quarterly examinations in two ways, namely multiple-choice questions (MCQ) and essay format. These are the types of tests that they used in quarterly examination as recommended by DepED schools division. They shared that MCQ had the highest number of points allotted as opposed to an essay, as reflected in their table of specifications (TOS). They explained that items in MCQ type were categorized in TOS as remembering, understanding, applying, analyzing, evaluating, and creating. They considered that all of these cognitive skills, except remembering, belonged to higher-order thinking skills. The essay question was categorized as creating. Furthermore, they shared that the test items constructed were usually based on the learning competencies included in the curriculum guide by DepED.

T16 shared her quarterly routine on preparing for her examination:

We are required to formulate a 50-item test for our quarterly examination particularly before pandemic. I allotted ma greater number of questions for MCQ item classified as remembering than items classified as analyzing and evaluating. I usually prepare 10-15 items that can be classified as higher-order thinking and the rest of my MCQ items can be classified as remembering. Five points is usually allotted for an essay question which for me is creating. I focus on the learning competencies prescribed by DepED when writing test items.

While offering reasons as to why quarterly examination was routinely done in MCQ format, a number of participants reiterated that DepED regularly conducted national assessments, such as the National Achievement Test, Early Language, Literacy and Numeracy Assessment, and National Career Assessment Examination, to evaluate learning outcomes during K to 12 years, and these assessments use MCQs. The participants argued that this may be the reason for their school officials to recommend the use of MCQ during quarterly examinations in preparation for these national assessments.

Moreover, the majority of the participants repeatedly expressed their views that higher-order thinking skills are synonymous with CT. They frequently associated these cognitive skills which were higher than remembering, specifically, understanding, applying, analyzing, evaluating, and creating as components of CT.

However, T17 expressed that he was not sure if he was really integrating CT into his quarterly examinations because it was a concept that was not clear to him.

I do not know if there is an integration of critical thinking in the construction of my periodic examination. Critical thinking is a concept that is vague to me.

This suggests that there may be many EFL teachers who may be in the same situation, like T17, whose notion on CT is unclear. If that is the case, teachers are not empowered to construct test items and do some assessments that call for students to think critically. This necessitates DepED to consider a provision of training on how CT is to be understood and applied by EFL teachers both in instruction and test construction.

Recommended propositions of setting directions for policy recommendation

Interestingly enough, out of 21 participants only T4 expressed that the DepED's prescribed list of competencies which focused on EFL learning was enough for EFL instruction. She argued that there was no need to give any recommendations pertaining to the integration of CT in EFL subject so that seventh grade students may not be overwhelmed with far more complicated learning tasks. This implies that this participant seemed satisfied with the learning competencies set by DepED and incorporating CT as added language and literacy domain may be burdensome to her students.

Furthermore, the twenty participants expressed the need to have a clear set of guidelines for policymaking. They offered suggestions that may be considered by education policymakers for setting direction regarding explicit integration of CT into the English curriculum. After categorizing all the suggestions given by the participants, a total of eight propositions emerged. These are explicit integration of aspects of CT in curriculum guide, inclusion of activities in the textbook that promote it, provision of supplementary teaching-learning materials that focused on its explicit integration, evaluation of teaching-learning materials if there is an explicit inclusion of CT aspects, evaluation of the curriculum guide to see if it is aligned with aspects of CT, periodic assessment of students' CT level, an additional stand-alone subject for CT, and creation of training sessions for teachers on the explicit integration of CT into English curriculum.

The suggested propositions above based on the merged findings of both qualitative and quantitative strands of data may be considered as baseline information for policy formulation. Provided below is the explanation for each of the eight identified recommendations for setting direction for policymaking in DepED's EFL curriculum.

Explicit integration of CT aspects with curriculum guide

The DepED curriculum guide in English for seventh grade students consisted of eight language and literacy domains: "reading comprehension, listening comprehension, viewing comprehension, vocabulary development, literature, writing and composition, oral language and fluency, and grammar awareness" (Department of Education K to 12, 2016, p. 151). Each had a set of learning competencies. The DepED may consider adding CT as another domain in English curriculum. If that were the case, then this implies that there would be a separate set of learning competencies designed for CT, which could be applied for explicit integration in both EFL teaching and assessment.

Inclusion of activities that promote CT in the textbook

Textbook writers of DepED may consider deliberate inclusion of activities that emphasize the infusion of CT abilities and dispositions. This suggests that they must have a clear notion on how the infusion approach

(Ennis, 1992) can be operationalized when designing activities that interweave CT skill and the topic of the lesson. In order to do this, necessary training on CT concept and its infusion into textbook activities is needed. Based on a careful examination of DepED's prescribed EFL textbook provided by a participant, there were activities in it that made students think critically through the use of open-ended questions that called for justifications of answers. However, Marin and Halpern (2011) argued that the teaching of CT must be done intentionally so that students learn it effectively. This implies that a teacher must be consciously aware of embedding certain aspects of CT when teaching a certain topic. Hence, principles of infusion approach may be applied when designing activities in EFL textbook.

Provision of supplementary teaching-learning materials that focuses on explicit integration of CT

The DepED may provide a separate supplementary instructional material that focuses only on how CT skills can be embedded in the lesson following the principles of infusion approach. This may be used as a reference by teachers from different disciplines and other textbook writers on how to infuse CT into the lesson. This suggests that teachers devote a certain number of days using it in addition to the prescribed EFL textbook for more in-depth application of CT in some lessons. Providing supplementary materials indicates DepED's commitment to integrating CT into the EFL classroom.

Evaluation of teaching-learning materials

The DepED may consider forming a certain committee that periodically evaluates EFL instructional materials to determine if CT is given emphasis in the prescribed textbook. Evaluation may focus on how CT skills are infused in every topic and assessment parts of the lesson along with the four major language skills.

Evaluation of the curriculum guide

The evaluation of the curriculum guide implies that the members of a committee on curriculum development have expertise on CT concepts to determine if CT abilities and dispositions are substantially represented in the curriculum. The curriculum evaluators could examine which CT skills are emphasized and which ones are neglected. Both ability and disposition as components of CT need to be given equal importance in the curriculum guide so that learners may acquire a holistic conceptualization of CT.

Periodic assessment of students' CT level

Aside from the aforementioned national assessments being conducted by DepED, a regular assessment that focuses on determining the level of CT of the students may be conducted. A standardized test on CT may be developed and administered before the beginning and immediately after the academic year to determine if students are progressively gaining proficiency in employing CT skills vis-a-vis their exposure to CT infusion approach. If CT assessment is not done regularly, teachers may probably not give much attention to infusing CT into their lessons. This may result in further deterioration of students' CT skills.

Additional stand-alone subject for CT

The DepED may consider including an independent course on CT in the existing curriculum for basic education. In that case, there will be a synergy between learning CT as a separate subject and learning it through infusion approach as applied in EFL context and other content areas. This implies that DepED may decide on who will teach the subject and what kind of training be given to prospective teachers to gain competence in teaching it. Further, DepED needs to decide on a textbook that may be used for teaching CT as a stand-alone subject.

Provision of training sessions for teachers on explicit integration of CT in the EFL curriculum

A two-pronged approach may be considered when thinking about intensive training on CT for EFL teachers. The first one is providing training on the concept of CT and the other one is training on the integration of CT in EFL instruction, assessment, and test construction. Infusion of CT into a topic can hardly be done if a teacher is not clear on the concept of CT and its associated skills. Hence, rigorous training that is devoted to learning about CT may be given prior to that of infusing CT into a lesson. This implies that DepED may consider adopting a specific CT framework that may be utilized in training across the country for teachers to have a parallel concept of CT.

The eight recommendations explained above may serve as a basis for policymaking with regard to how EFL curriculum in basic education in the Philippines be further enriched through deliberate integration of CT. Education policymakers may evaluate each recommendation to look into its merit for future revision of EFL curriculum.

Discussion

Participants' notion of CT

As shown in the third column of Table 1 above, there is a concordance between the two strands of data regarding participants' understanding of what CT is. Based on results of the in-depth interviews, participants equated CT with higher-order thinking skills. They also associate CT with reasoning and metacognition. Their interpretations focused on the ability component of CT indicating their own understanding of the term which coincides with the results of quantitative data that participants strongly agree that they clearly understand the term CT. The concordance suggests that the participants' understanding of CT is narrow and limited. This is consistent with the findings of various researchers (Choy & Cheah, 2008; Hasni et al., 2018; Li, 2016; Ramis, 2018; Stapleton, 2011; Yuan and Stapleton, 2020) that teachers from other academic disciplines in some Asian countries (Stapleton, 2011) find CT concept vague.

Participants' belief about CT skill of students

A concordance of two strands of data occurred with regard to teachers' belief on the status of CT of Filipino seventh grade students. Both sets of data support each other indicating that these students are not good at CT. Based on the results of the interview, the participants found their students weak in higher-order-thinking skills. The concordance implies that an intervention may be needed to support students' learning of CT through the EFL curriculum. This further substantiates participants' recommendations that a policy needs to be designed for the enhancement of building competence in CT and implementing policy on CT at grassroots level.

Integration of CT into subject matter

Similarly, a concordance of two strands of data occurred when all participants indicated that they integrated CT in their daily lessons specifically in teaching Philippine literature. The qualitative data explained that these twenty-one participants integrate CT by using open-ended questions that call for students to express their ideas, opinions, and arguments on certain topics. This type of instructional approach in CT may be called immersion (Ennis, 1992) where teachers engage students to deal with issues thoughtfully but not giving explicit attention to CT processes. The qualitative strand explicates the kind of approach the participants employ in doing the integration of CT into subject matter. This narrow and limited ways of how the participants did the integration of CT based on the results of the interview would not have been provided by the quantitative data. One may conclude by simply looking at the quantitative strand that these teachers seemed to have firm knowledge of how the integration could be operationalized; however, the qualitative data indicates otherwise. This shows that qualitative data compensates for the lack of details provided by the quantitative data, which, in turn, generalizes qualitative findings. The concordance suggests that education policymakers may consider other types of approaches to teaching CT. A study done by Marin and Halpern (2011) argued that the infusion approach is more effective than the immersion approach in embedding CT in lessons. This was supported by Al-Ghadouni (2021) who has done reviews of approaches to teaching CT and found that the infusion approach is more effective than immersion, which is the most frequently used but the least effective approach. Hence, the infusion approach, which is claimed to be more effective than immersion approach, may be considered in policymaking as practice to be adopted in integrating CT into the EFL curriculum.

Teaching for transfer

In relation to teaching for transfer, both strands of data confirm that the participants teach for transfer of CT in their lessons. However, the qualitative strand of data revealed that the participants taught transfer in two ways: either relating the present topic to topics from other curricular areas or to the previous topics within the curricular area. This shows that participants, generally, seemed to have vague ideas on how to do the teaching for transfer. They seemed to focus on the content of the lesson rather than the competency when it came to teaching for transfer. Further, participants seemed unaware of the infusion approach (Swartz, 1994) in which teaching for transfer of CT principles is an integral part of the lesson. Halpern, (1998, 2007, 2014) argued that the ultimate goal of CT instruction is for students to learn to apply CT to different facets of human life. With the concordance of both strands of data, policymakers may consider teaching for CT transfer as an integral part of EFL curriculum.

Strengthening the role of CT in the EFL curriculum

There is a concordance for both strands of data regarding the importance of strengthening the role of CT in the EFL curriculum. Participants expressed that CT was beneficial to students both in academic and personal challenges they constantly encounter. Among the questions from the quantitative strand, this item has the highest mean score with low standard deviation that coincide with participants' predominant view that CT is a tool for success and survival; thus, the need to strengthen its role in the EFL curriculum. Bowell and Kingsbury (2015) argued that "The message is that CT can matter, a lot, in real-life situations" (p. 243). Additionally, Alnofaie (2013) stated that CT can help the students learn a foreign language and facilitate creativity and production of a variety of spoken and written expressions. Considering its relevance to diverse facets of human activities, policymakers may consider strengthening the role of CT in the EFL curriculum.

DepED's prescribed EFL textbook

The participants as shown in Table 1 believed that the English textbook for seventh grade students prescribed by DepED promoted CT. The participants expressed that the DepED textbook provided activities that asked students to do creative thinking and answer open-ended questions. This further corroborates the foregoing findings that the participants' limited understanding of CT focuses on ability component of CT. Nobody from the participants mentioned open-mindedness, managing impulsivity, and fair-mindedness as necessary components of CT that need to be included in textbook. Thus, policymakers may consider giving equal emphasis to enhancing teachers' understanding of and teaching of CT.

Teacher-made EFL examinations

Moreover, an expansion occurs in item 7 that deals with the integration of CT in quarterly examinations prepared by EFL teachers. Quantitative strand of data showed the participants' agreement that they integrated CT in their examinations. The qualitative strand corroborated to a certain extent the findings in quantitative strand. Participants shared their view that they integrated CT in their examinations but to a minimum extent only. Their examinations consisted primarily of MCQ and sometimes with the inclusion of an essay. They expressed that their MCQs predominantly were comprised of rote recall and a small number of items that called for analysis and evaluation. This suggests that a policy be crafted on providing EFL teachers how to construct MCQ that measures explicitly CT abilities and dispositions. Considering the complexities of the concept, policymakers may consider a series of intensive training on test construction pertaining to CT.

Both strands of data concur that there is a need for a set of guidelines pertaining to CT instruction. Participants suggested some propositions that may be considered for policymaking on integration of CT into the teaching of English in seventh grade students.

In summary, the participants seemed to have a narrow and limited understanding of what CT was. They seemed unaware that CT consists of two major components, namely, ability and disposition. They seemed to equate CT with higher-order thinking skills that focused on the ability component of CT. Apparently, they had similar practice on how CT is integrated by employing open-ended questions during class discussion. They appeared to have no clear idea on how the infusion approach could be effectively applied to their lessons. They seemed to have a vague concept on how to teach for transfer which is the ultimate goal of CT instruction (Halpern, 1998; 2007; 2014; Swartz, 2003). Participants seemed to view that their students hardly engaged with CT skills due to their difficulty in dealing with open-ended questions. They argued that the content of their textbooks provided open-ended activities that called for students to think critically. They expressed that the predominant type of quarterly examination they prepared was multiple choice type of question in which the bulk of items focused on recall.

Conclusion

Recognizing the relevance of CT in different facets of human life, it is urgent that CT be explicitly integrated in different curricula. Since language and thinking are inseparable (Halpern, 2014), DepED may consider that explicit integration be done first in language curriculum of Philippine basic education.

Notably, if one would simply rely on the quantitative strand of the study, it is inevitable to conclude that the participants seem to have a clear concept of what a CT is and how it is applied in teaching EFL. However, the concordance and expansion as combinations of fit between qualitative and quantitative strands of data suggest the narrowness and insufficiency of the participants' understanding of the concept of CT which implies that there is a need for making the concept clear to EFL teachers. Thus, the DepED may consider providing intensive training on how CT be understood and explicitly integrated in the lessons as well as in

test construction that explicitly measures CT abilities and dispositions. The suggested direction may be less arduous for DepED if CT is integrated in Teacher Education curriculum so that future teachers may have defensible background on the concept for effective integration of CT in their lessons when they start teaching.

It should be noted that the results of compared findings of both strands of data may serve as a direction for DepED policymakers on the fundamental issues when considering integration of CT. Policymakers may look into various recognized models of CT (Bailin & Battersby, 2016; Ennis, 1996, Fisher, 2011; Halpern, 2014; Hatcher & Spencer, 2006; Paul & Elder, 2014) for adaptation so that there will be a common understanding of what a CT is for every Filipino teacher.

Since the data obtained were from one school division only, follow-up research using a mixed methods approach could be conducted in other school divisions from different regions across the Philippines to get a much wider perspective and further validation of the findings of this paper. However, the findings in this study may serve as baseline information for setting directions for policy recommendations on the integration of CT in EFL curriculum for secondary education.

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