Developing Cognitive Academic Language Proficiency (CALP) in a Feedback-Rich Inquiry-Based Writing Class

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Abstract: The literature of second language (L2) writing urges teachers of writing to anchor their teaching on inquiry-based (IBL) teaching framework for the purpose of developing their students' cognitive academic language proficiency (CALP). Relative to IBL, the process approach to writing (Graves, 2003) draws theoretical support from Piaget's stages of cognitive development and Vygotsky's zone of proximal development (ZPD). This qualitative research aims to respond to a call for more research on learners' affect. Using Ellis (2009) typology of feedback, the researcher analyzed the drafts and identified the most frequently given type of feedback on the extended definition essays written by a group of university academic writing students. The students were surveyed through an affective inventory and subsequently, interviewed. Analyses of the drafts revealed that the teacher was more inclined to use direct corrective feedback than the other types of feedback. This finding suggests that grammatical correctness was often given the most attention in the classroom. It mirrors the same finding in studies involving EFL students of writing (Mahfoodh, 2017). Data from the inventory and the interview transcripts instructionally imply that written feedback is a formatively – oriented progress monitoring mechanism that could help learners cope with the cognitive demands of writing and gain a sense of achievement and control over their learning.

Key Terms: inquiry-based learning; written corrective feedback; process approach; formative assessment; cognitive academic language proficiency

1. INTRODUCTION

Changing academic needs and linguistic demands of employment are two pressing factors that push higher education institutions (HEI's) across the globe to adopt learner-centered paradigms that emphasize the development of students' communication and information literacy skills (Allen, 2004). In the Philippines, however, studies reveal that many college graduates tend to show weaknesses in critical thinking, problem - solving and proficiency in academic English or cognitive academic language proficiency (CALP). Confirming the same problems were low scores in local standardized examinations, and international tests on reading and math (such as PISA) of elementary and high school students.

Classes in too many instances use bottom-up approaches that focus on form rather than top-down approaches that center on meaning. According to Stryker and Leaver (1997), bottom-up approaches rarely spark student interest and motivation and have often created frustration and anxiety. It has been observed that ESL teaching in the Philippines specifically writing classes still pay much attention to "writing as a product" approaches. According to Richards, "command of good writing skills is increasingly seen as vital to equip learners for success in the twenty-first century" (Hyland, 2003, XV)." Critical thinking is often correlated with academic writing such as research-based essays and other forms of scientific papers required in universities. Should Filipino language teachers need to rethink of their noncommunicative teaching methodologies to address these deplorable academic issues? The development of CALP, critical thinking and inquiry skills may be best achieved in cognitively demanding inquiry-based writing classes. Inquiry-based learning is a learning and teaching approach that emphasizes students' questions, ideas and observations. This approach enhances comprehension via intelligent discussion of ideas among their peers and veers away from rote learning. In practice, the approach has five steps. Students get to **ask/pose** questions, **investigate** a topic, **create** products/artifacts, **discuss** further by

asking more relevant questions leading to self-directed inquiry and **reflect** to take stock of what has or has not been accomplished in terms of learning targets. Essentially, the process approach to writing aptly relates to inquiry-based learning as a teaching method.

With reference to inquiry-based writing classes, Allen (2004) recommends the use of outcomes offered by summative and formative assessments to improve courses and programs for all types of learners. A body of research in language teaching and assessment revealed that objectively scored tests are not enough to assess desired learning. Teachers should have a variety of assessment measures to obtain "empirical evidence to confirm a change in a student's behavior or performance" (Witte, 2012, p. 122). Central to formative assessment or assessment for learning (AFL) is the goal of giving effective teacher feedback and improving instruction and accelerate student learning.

Formative assessment as defined by FASTSCASS, is "a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievements of intended instructional outcomes (p.5)." Contrary to a misconception about formative assessment, it is not a type of test per se and therefore is not graded. "There's no such thing as a formative test (FASTSCASS, 2008, p. 10)." In practice, formative assessment measures should be strategically positioned in the instructional process to maximize the benefits for teachers and students. Students are prepared mentally and psychologically for learning tasks when teachers avoid delivering and using formative measures like the way they treat summative tests. For example, students should have a clear knowledge of the formative assessment process and its purpose in the classroom. Some of these measures are in-class focused questions, observation, checklists, interviews, rubrics, and oral and written feedback on student-generated artifacts. Truly, providing students with descriptive feedback is critical in the learning process (Assessment Reform Group, 2002). Written feedback is a kind of formative feedback that aims at encouraging the development of students' writing skills and is regarded as a critical ingredient of promoting learning. Ellis (2009) defines corrective feedback as responses to students' sentences, informing them that their sentences are incorrect grammatically or should be improved in terms of expression of thought. Usually, corrected forms of the sentences are offered. There is a large body of research on written corrective feedback (WCF) and its types and effects on students' revisions (Ellis, 2008; Siewert, 2011; Karim and Ivy, 2011; Nemati, Alavi, Mohebbi & Masjedlou, 2017). However, there are only a few

local and foreign researchers (Murphy, 2000; Ferris & Roberts, 2001; Lee,2008; Amrhein & Nassaji, 2010; McMartin – Miller, 2014; Mahfoodh, 2017; Alamis, 2010; Magno and Amarles, 2011 & Balanga et al., 2016) who explored students' voices and viewpoints about feedback. This research aims to answer the following questions:

1. What are the most common types of corrective feedback used by the teacher in the definition essays of the students?
2. How do the students view affectively teacher feedback in terms of the following aspects?
   a. Clarity of learning targets
   b. Eagerness to learn
   c. Academic efficacy and
   d. Progress monitoring information
3. How can feedback be used effectively in an inquiry-based writing class as perceived by students?

2. METHODOLOGY

2.1 Research Design

As an exploratory qualitative study, this investigation aimed to identify the most common types of written corrective feedback used by the researcher in the essays of the students. It also explored the students' affective views on the formative assessment measures employed in their inquiry-based writing class. Basic interpretive design was used in this study.

2.2 Participants

Twenty-three academic writing students in a Catholic university in Manila participated in the study. The participants were enrolled in a general education reading -writing course.

2.3 Instruments

Essays formed part of the data for this study. Drafts of the essays were analyzed anonymously and the types of corrective feedback were tallied in a table. Frequency count was used. To determine the affect of the students, the affective inventory of Stiggins (2008) was used. To triangulate the results of analysis of the affective inventory, interviews with the students were employed using an interview guide. The students' responses were transcribed and analyzed using In Vivo Coding, Open Coding and Axial Coding.

2.4 Theoretical Framework

This study draws theoretical support from Vygotskyan theory of the zone of proximal development. It is believed that it is in the zone of

proximal development (ZPD) where language learning takes place. It refers to a learner's "actual development and potential development (Dunn, 2005, p. 236)." The theory gives importance to the assistive and instructional role of the teacher in children's language learning via social interaction. Descriptive feedback is considered as an instructional scaffolding in the ZPD. Another supporting theory is process writing theory (Graves, 2003) that focuses on the belief that writing is non-linear and recursive in that the writing process can be modeled. Pedagogically, it involves thinking, asking questions, discussing, investigating, multiple revisions and reflection. On formative assessment, the Learning Target Theory of Action (Moss and Brookhart, 2019) also lends theoretical support to this study. The theory emphasizes the importance of communicating to students the instructional goals and the success criteria in a language they can easily understand.

2.5 Data Gathering and Analysis Procedure

Following the schedule in the syllabus, in the tenth week of the term, drafting of the essays was done by the students. Then, drafts were read and given feedback. All corrective feedback on the essays were categorized and tallied based on Ellis's typology (2009). To make accurate categories of feedback, counterchecking of the categories was done by a qualified language teacher. The students were also surveyed through an affective inventory on their views about how formative assessment was implemented in the class. Anonymously, the affective inventory was answered by the students. The inventory delves into students' views of four components of formative learning: clarity of learning targets, eagerness to learn, academic efficacy and progress monitoring information. To triangulate the results of analysis of the survey, face-to-face interviews were conducted using an interview guide. Five questions were asked of the participants pertaining to their points of view about a discussion of learning targets, use of model essays, written feedback, and impact of process approach on their learning. The responses were transcribed and analyzed using Open Coding and Axial Coding. In Vivo Codes or essential words and phrases were also derived from the transcripts, tabulated and analyzed. Thematic coding was utilized in the recording, tabulating and analysis of the data. Themes in the forms of key words and phrases often adjectives and concepts that were frequently used in the students' responses to were extracted. In codifying, Lincoln and Guba (1985 as cited in Saldana, 2016) explain that researchers may also rely on their classification reasoning, tacit and intuitive senses to spot which data "look and feel like". In this study, codifying the data involved two stages: (1st) Open-Coding, and (2nd) Axial-Coding. In the Open coding stage, perusal of data to note the themes and commonalities that are evident takes place (Gallicano, 2013). In vivo coding was also used in the open coding stage to highlight a student's exact own words or direct quotation of what he/she says (Saldana, 2016). In axial coding or the second sweep stage, the relationships among the themes in the first stage were identified and expressed in sentences. Themes that emerged out of the in vivo codes are shown in the third column.

3. RESULTS AND DISCUSSION

This section presents the research problems and their answers are discussed.

1) What are the most common types of corrective feedback used by the teacher in the definition essays of the students?

As shown in Table 1, among the different typologies that the teacher used in the students' drafts, direct corrective feedback ranks one logging in a total of three hundred twenty-six (326) or forty point fifty five percent (40.55%), followed closely by metalinguistic corrective feedback with a total of three hundred twenty (320) or thirty nine point eighty percent (39.80%). Direct corrective feedback is a type of feedback that provides a student with a correct version while indirect written feedback indicates the presence of an error but not corrected. Interestingly, there is a less than one percent gap between direct corrective feedback and metalinguistic corrective feedback. Occupying the third spot is comment having a total of one hundred forty-seven (147) or eighteen point twenty eight percent (18.28%). Table 1 further shows all essays received commentary feedback. Coming in last is indirect corrective feedback with eleven (11) or one point thirty seven percent (1.37%). The high frequency of use of direct corrective feedback may mean that the teacher gave much attention to teaching linguistic accuracy in response to a need for it of the students. This finding also confirms that teaching in most EFL writing classes is focused on accuracy rather than fluency (Mahfoodh, 2017). Researchers though averred that direct corrective feedback bring benefits to students. According to Bitchener and Knoch (2010) and Ferris et al. (2013), by supplying clear, correct and immediate versions to students, they learn the importance of form, function and meaning of linguistic errors. With direct corrective feedback, Ferris (2003) opined that difficulties in understanding the meanings of corrective codes when students revise their drafts is overcome.

2) How do the students view affectively teacher feedback?

Clarity of learning targets yielded a mean score of 4.21 which signifies students' high agreement with the statement. This is also supported by the high level of agreement of nearly all (18 or 94.74%) of the students with the statement that the writing class raised their eagerness to learn. Eagerness to learn registered a mean of 4.47. This means that the students likely perceived the assessment strategies in the classroom to be not "product-judging" but rather "responding and progress-tracking" (Hyland, 2003, p. 232). Item 2 relates to how the students perceived the academic efficacy of the class. In support of this finding is the 2.05 mean of item 7. Progress-monitoring information is closely tied with academic efficacy in the sense that with regular feedback, students are guided to be better in different learning tasks. With 4.33 mean score, item 8 appeared to be agreeable to the majority (17), with 7 strongly agreeing. This is confirmed by the 2.63 mean of item 3. This finding also validates Black and William's (1998) belief that schools employing formative assessment measures greatly benefit their students. Table 1. Commonly used written corrective feedback in the extended definition essays

Table 1

Commonly used written corrective feedback in the extended definition essays

	Direct	Indirect	Meta-linguistic	Comment	Total
S1	14	2	13	4	33
S2	24	0	10	6	40
S3	3	2	8	7	20
S4	42	0	16	11	69
S5	7	0	10	4	21
S6	15	0	8	11	34
S7	3	0	2	8	13
S8	24	0	15	9	48
S9	10	0	30	7	47
S10	7	0	13	8	28
S11	9	0	6	3	18
S12	7	0	7	7	15
S13	16	0	63	5	84
S14	9	1	20	6	36
S15	33	0	19	10	62
S16	3	0	13	6	22
S17	1	0	3	7	11
S18	19	0	9	6	34
S19	35	2	18	2	57
S20	4	2	10	7	23
S21	23	0	15	4	42
S22	13	2	14	5	34
S23	5	0	4	4	13
Total	326	11	320	147	804
%	40.55%	1.37%	39.80%	18.28%	100%
Rank	1	4	2	3	

*S – student

3) How can feedback be used effectively in an inquiry-based writing class as perceived by students?

Table 2 shows how the codes have been further codified to themes. These themes were refined and expressed in complete sentences in the third column of Table 2.

Table 2

Summary of Themes Derived in the Open Codes

COMPONENT	OPEN CODING	AXIAL CODING
Orientation about the Learning Outcomes of the Course	So helpful that it helped me realize the importance of research in writing about different topics. Alertness towards what to expect to do in class	The discussion of the learning outcomes of the course is helpful, insightful and useful as it prepares the students mentally for the research-based writing tasks.

	Helpful directed focus on skills development Useful, helpful and insightful as it provides us an overview and prepare us mentally for the writing tasks	
Use of Model Essays in Teaching	Served as blueprint for shaping up essays A huge help in choosing a topic, outlining, arranging the thoughts or flow of ideas, managing tone, choice of words and choosing relevant and credible sources required in writing an essay	The use of model essays in teaching academic writing serves as a blueprint for composing good essays.
Teacher's Written Feedback	Commending, approving and praising feedback; inspiring and motivating to do better in the next step. Giving us a sense of accomplishment Encouraging, honest, accurate and positive feedback boosts confidence.	Motivating, accurate and prompt feedback on students' works is confidence-boosting and rewards students a sense of accomplishment.
Impact of Process Approach on Learning	A systematic, step-by-step procedure; honing and strengthening writing and thinking skills Ensuring slow yet gradual growth in writing academic papers Enables a teacher to provide students with effective mentoring and progress-monitoring feedback	Anchored on student-centered mentoring practices and progress-monitoring feedback, the process approach develops students' writing skills and sharpens their thinking and metacognitive skills.

One of the attributes of formative learning is the clear identification and communication of learning goals and criteria for success to students. In the writing class, the theme pertaining to the learning outcomes was translated into action at the start of the term when the teacher discussed the learning outcomes of the major writing tasks. The students felt that the orientation and succeeding discussions of sub-goals in each stage of the process approach was insightful and useful as it prepared them mentally and psychologically for the writing tasks. This first theme as shown in Table 2 aptly describes the students' perception of the inquiry-based writing class as very supportive and conducive for developing their analytical skills and composing strengths and weaknesses. The classroom also boosted their confidence to overcome their fear of writing. The high level of eagerness to learn revealed by the affective inventory also aligns with the theme on the use of model essays. Age-appropriate and interesting model essays were discussed and analyzed in-depth in terms of language, structure and ideas. A reading outline for the model essay was made to prepare the students for outlining, a skill necessary when students are drafting. These and all other related successful learning experiences impact students' academic well-being. Indeed, the writing class put into action the Learning Target Theory of Action (Moss and Brookhart, 2019). The theme on motivating and accurate written and oral feedback affirms the belief of the students in the inventory that feedback received was confidence-boosting. Regardless of the type of written corrective feedback, the students were convinced that such feedback would help them monitor their improvement in writing their essays. The fourth theme recognizes the purpose and long-term benefit of corrective feedback to students in the process-oriented writing class. Furthermore, the theme harmonizes with the findings of the inventory, thus the process approach allows for student-centered mentoring practices and continuous and adequate access to feedback.

4. CONCLUSIONS

Linguistic competence and fluency in writing were given attention in the writing class as supported by the results of the analysis of the types of corrective feedback used in the writing class. The results confirmed the findings of a few local studies on corrective feedback (Alamis, 2010; Balanga et al., 2016). Formative learning and teaching characterized the inquiry-based writing class in this study as confirmed by the results of the analyses of the affective inventory (Stiggins, 2008) and the themes that were derived from the coding of the responses in the interviews of the students. Despite some criticisms thrown at the process approach, this study underscores the importance of maintaining a balance between process and product orientations to meet the academic writing needs of various L2 writers who come from non-English discourse communities.

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