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CT LiLT SDD Forum: Creativity, critical thinking and language learning

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In this forum shared themes related to all three SIGs were discussed. David Gann talked about how critical thinking and creativity are related within a widely accepted framework of general thinking skills. Jane Nakagawa discussed learner diversity, creativity, and critical thinking in the classroom. Dawn Kobayashi made connections between creativity in language learning and drama. Tara McIlroy talked about selecting poems and short literary texts for discussion and debate in university content-based classes. A discussion on models of critical thinking, creativity and literary texts followed the individual presentations.

このフォーラムでは、上記の3つのテーマに沿っての講義が展開された。デイビッド・ガン氏は、批判する力と創造性は、どのように一般的な思考の技術に関係しているかを講義した。ジェーン・ナカガワ氏は詩、多角的な知能、スピーチ、演劇、そして討論についての紹介をした。ドーン・コバヤシ氏は、演劇を通した言語学習から創造性について関連付けた。タラ・マキロイ氏は、話し合いや討論を大学の授業でするために用いるとよいと思われる詩や短編の文学作品を選ぶことについて講義した。批判的に考える力と創造性と文学のモデルについての話し合いは、個人のプレゼンテーションの後に記されている。

Introduction

In this forum, shared themes related to all three SIGs were discussed. David Gann talked about how critical thinking and creativity are related within a widely accepted framework of general thinking skills. Jane Nakagawa introduced poetry, multiple intelligences, and speech, drama and debate. Dawn Kobayashi made connections between creativity in language learning and drama. Tara McIlroy talked about selecting poems and short literary texts for discussion and debate in university content-based classes. A discussion on models of critical thinking, creativity and literary texts followed the individual presentations.

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Critical Thinking and Creativity in a Framework of General Thinking Skills

David A. Gann

In discussions about critical thinking since CT SIG was established, a common issue has been the boundary between critical and creative thinking. Most

Table 1
Relationships between micro and macro skills (Angeli, 2010, p. 7)

Relationships between Micro and Macro Skill				
	MACRO SKILLS			
	Problem Solving	Decision Making	Critical Thinking	Creative Thinking
MICRO SKILLS				
Causation				
Transformations				
Relationships				
Classifications				
Qualifications				
OUTPUT	Solution to a problem	Response	Sound argument, proof, theory	New meaning, aesthetically pleasing results

teachers are not acquainted with taxonomical models of cognition and so understandably take an inductive approach, examining artifacts (literary texts, works of art, architecture etc.) and inferring observable qualities they believe result from critical thinking and creative thinking. It is sometimes the case that people are concerned with what they perceive as a dichotomy between critical thinking and creative thinking; they understand the need for critical thinking instruction, but are concerned that critical thinking, which they may regard as negative or constraining, can operate at the expense of creative thinking development (Fisher, 2001, p. 13). Perhaps what is needed in education is not only more critical thinking instruction, but course design based on a better understanding of the relationship between critical and creative thinking.

In writing a novel, critical thinking may be thought of as the framework in which creative thinking takes form and which also constrains that creative energy. The convention of cause-and-effect may be stretched, but not past the breaking point. Characters must maintain certain core qualities. They must remain within the categories into which the writer initially places them and into which the reader might reasonably expect them to fall. Composition is a balance between free thinking at one end of the spectrum and goal directed thinking at the other end. Writers must be free to daydream at times and at other times must be able to bear rhetorical norms in mind (Kellogg, R.T., 1994, pp.10-11). In some cases, unraveling and separating the two threads of critical and creative thinking may be quite simple.

Metaphor is frequently invoked as an example of creative thinking. However, under closer scrutiny, the kind of cognition (transformations) required to link two incongruent elements—such as “a lover’s smile” and “a spring day”—falls within the boundary shared by both creative thinking and critical thinking (Angeli, 2010, p. 6). Some people consequently reposition to assert that critical and creative thinking are essentially the same thing. This is neither satisfying nor helpful.

The design of wine glasses provides an example of how critical and creative thinking are not so easily unraveled. Most people can appreciate the delicate form of wine glasses and undoubtedly creativity is involved in their design. From the terminology we might guess the form is a kind of metaphor for a flower. Wine is poured into the *bulb* and wine is referred to as

Table 2
Distribution of micro-skills across macro-skills. (Angeli, 2010, p. 6)

A Model of General Thinking Skills

1. Causation
   Establishing cause and effect, assessment:
   Prediction, Inferences, Evaluations, Judgement
2. Transformations
   Relating known to unknown characteristics, creating meanings:
   Analogies, Metaphors, Logical Induction
3. Relationships
   Detecting regular operations:
   Parts and Wholes, Patterns, Analysis and Synthesis,
   Sequences and Order, Logical Deductions
4. Classification
   Determining common qualities:
   Similarities and Differences, Grouping and Sorting, Comparisons,
   Either/Or Distinctions
5. Qualifications
   Finding unique characteristics:
   Units of Basic Identity, Definitions, Facts, Problem/Task Recognition

having a delicate *bouquet*. The form of the wine glass also has a function. A difference in temperature affects flavor and other qualities. For that reason, wine glasses are made with a *stem*, (another flower metaphor) the function of which is to avoid heat transfer from the palm of one's hand to the wine (Billing, 2008, p. 69). Working backwards from the design of the artifact to the cognition of production can lead to guessing about the roles of critical and creative thinking. Rather than work from an artifact back to the cognition, a more effective approach may be to forego talk of artifacts altogether and define critical and creative thinking in terms of skill sets.

Table 1 and Table 2 are based on taxonomies of Bloom (1956) and Guilford (1967) (in Angeli, 2010, pp. 6-7). These provide a good entry point for anyone interested in this issue. How do such taxonomies speak to educators responsible for curriculum and course design? What do they say about improving efficiency in teaching critical thinking to liberal arts students teaching creative writing at a college of science? The first thing to note is that the question regarding the boundary between critical and creative thinking was earlier framed as something of an oversimplification. The question itself contains a false dichotomy that fails to take into account problem solving and decision making. Table 1 also shows that the four major skills are not undifferentiated skills, but rather skill sets composed of micro skills and that, excepting *qualifications*, none of the micro skills is unique to any single macro skill. (Table 2 provides definitions of the terms used in Table 1.) Note also that between any two macro skills there are areas of overlap and non-overlap. This observation can be a significant aid to our curriculum and course design.

In view of students' abilities, this taxonomy can recommend focusing on some micro skills and deemphasizing others. Although transformations and relationships are an important part of critical thinking, many liberal arts students will have likely already developed micro skills in the creative macro skill set. Teachers can then avoid redundancy in

their course design. It may also be expected that those students will have not fully developed skills in identifying causation and classification. Accordingly, teachers may wish to provide lessons that focus on these skills. Science students likewise may not need development in transformations and relationships but may benefit from lessons on qualifications and the ability to recognize or form new and novel meanings. Understanding critical and creative thinking in terms of the underlying overlapping and non-overlapping micro skills dismantles the perceived polarity between critical and creative thinking. It can also help educators avoid redundancy in course design and better meet students' domain-specific needs.

Learner differences and multiple intelligences theory

Jane Joritz-Nakagawa

Jane Joritz-Nakagawa discussed the importance of learner (and teacher; see Nakagawa, 2004) differences and the usefulness of Gardner's multiple intelligences (MI) theory (Gardner 1993, 1999 a &b) and Jungian psychological type theory (Jung, 1976) along with transformative learning (Cranton, 1994) in planning courses and lessons with the goal of reaching diverse learners.

Cranton (1994) believes learner personalities affect the way students think and learn, and that these individual characteristics need to be taken into account when teaching critical thinking; Lawrence (1996) and Fairhurst and Fairhurst (1995) link Jungian psychological types to learner preferences for classroom activities and Silver, Strong and Perini (2000) attempt to account for learner diversity by combining the MI and Jungian psychological type models. A chart from Silver, Strong & Perini (2000) distributed by Nakagawa illustrated four artworks, each by a different artist, which represent four distinct types of "cognitive core" in the Jungian sense: sensing/thinking was represented by an Ansel Adams photograph; sensing/feeling by a Norman Rockwell painting, intuitive/feeling by a Picasso painting; and intuitive/thinking by an Escher painting. In this way Silver et al. (2000) attempt to demonstrate that one multiple-intelligence (in this case visual-spatial intelligence) can vary in its expression in accordance with Jungian psychological type theory. Nakagawa commented that all artworks (including poems; Nakagawa teaches poetry among other subjects) could not be so easily categorized but that psychological type theory and multiple intelligences theory, despite well known criticisms of both, have value in reminding teachers that learners will have different preferences in terms of learning materials and strategies which teachers can keep in mind to stimulate, value and challenge diverse learners.

Gardner (1993) suggests that critical thinking should be taught/practiced relative to specific domains because "the kind of thinking required to analyze a fugue is simply different from that involved in observing and categorizing different animal species, or scrutinizing a poem, or debugging a program . . . . " (p. 44). He suggests (1999a) MI can be used by teachers/learners to "introduce topics or provide powerful points of entry" (p. 186); present analogies to link the unfamiliar with the familiar; and to provide "multiple representations of the central or core ideas" (p. 187) of a topic. He also suggests (1993, pp. 42-44) that memory may be tied to the MI vs. a separate ability, citing neuropsychological evidence for this belief.

Cranton (1994) cites a model of personal transformation also discussed in Mezirow et al (2000) that suggests personal transformation begins with a "disorienting dilemma" when a person encounters new information which conflicts with an earlier formed belief. If what provokes critical thinking -- the triggers in trigger events that lead, optimally, to critical thinking -- are different for each person then to provide various kinds of "triggers" (materials and tasks) in a classroom appears wise as a way of promoting critical thinking.

Nakagawa stated that when she made an effort to include a broad range of MI and Jungian type-related materials (e.g. songs, poems, film, academic writings, statistical charts, etc.) and activities and used transformative learning pedagogical ideas in her courses together with cooperative learning (Cranton refers to cooperative learning but for a more detailed overview, see Sharan, 1999) effective learning according to student self-reports and teacher observation, including in challenging content courses

such as American History, Gender and Society, and Introduction to American Poetry, as well as in required EFL courses, took place. She also found via course evaluations that these courses were very well-received by students. She further discovered that students began to integrate MI in an unprompted fashion in meaningful ways; for example students would make posters, drawings and placards, or add or compose music or sound effects, for use during their speeches, role plays and debates without being asked to do so or would illustrate their journals etc. in ways that enhanced their meaning and/or aided audience comprehension. In content courses, students were permitted to determine the form of response to weekly themes and readings in their journals (e.g. via writing a poem or dialogue; composing a speech, debate, comic or song; preparing a brief research report, etc.). Responses varied by student but also student responses changed over the term; the results were gratifying for students and teacher. The courses concluded with oral and written research reports; written reports were read only by the teacher except for the sharing of drafts with peers and the oral reports were designed as a way for students to share the knowledge they had gained with other students.

Creativity through Drama in Language Learning

Dawn Kobayashi

Dawn Kobayashi discussed how drama, specifically drama techniques, can be used to develop students' creative thinking. As Pope and Swann argue creativity does not exclusively mean the elite creativity of exceptional artists (2011, pp. 5-7). This selective view of creativity, often called Big C creativity (Craft, Jeffrey & Leibling, 2001), leads people to believe that they are not creative. Research into everyday creativity argues that we are all creative and use language in uniquely creative ways in everyday interactions (see Kaufman and Sternberg, 2010; Carter, 2004). The psychologists Kaufman and Sternberg (2010, p. xiii) state that creativity is: 1. Something new, different, innovative, 2. High quality, and 3. Appropriate. Creativity has also been defined as entailing change or transformation (Csikszentmihalyi, 1996, p. 28) and should create the need to make, create, imagine, produce or design anew (Feldhusen, 2006, p. 137).

Kaufman and Beghetto's (2009) four levels of creativity present creativity as a gaugeable skill. From this model it can be seen that although Big C creativity, the legendary type that people are either born with or not, may not be attainable for all students; there is no reason why through the use of activities such as drama techniques (hereafter DTs) that students may not progress from lower to higher levels of creativity. Beghetto uses the analogy of a jazz pianist to illustrate the distinctions:

1. Big C – legendary creativity, ex. Fats Waller
2. Pro C – professional creativity, ex. Professional jazz pianist
3. Little c – everyday creativity, ex. Accomplished amateur jazz pianist
4. Mini c – interpretive creativity, ex. Young player just discovering jazz riffs

(Adapted from Beghetto, 2010, pp. 455-456)

DTs are activities that were developed in the theater to help actors gain deeper understanding of a play's characters, situation and background story. These activities have been selected and/or adapted for use in the language classroom (see Spolin, 1986; Maley & Duff, 2005). Activities that a teacher could use might include: tableaux, hot-seating, and choral reading. As DTs are not intended for performance, the focus is on the process of developing the drama rather than the finished product. Additionally, DTs often revolve around some conflict or tension that must be resolved. How the 'problem' will be resolved is up to the participants, each problem having multiple possible solutions. This structure is very similar to creative thinking exercises where students are presented with a problem and must produce as many solutions as possible. The Torrance test of creativity (Torrance, 1966) is still one of the most common assessments of creativity, many of the tasks are surprising similar to the theatre games and drama techniques devised by the likes of Spolin, 1986; Maley and Duff, 2005; Swale,

2009. For example: product improvement, unusual uses, and just suppose.

Finally DTs in the language classroom foster creative, cognitive function. Drama techniques act as stimuli for students' creative and interpretative thinking, they function as the starting points from which students may depart to multiple potential end points. Language learning and creativity are synergic: Acquiring knowledge about the rules of language enables creative thought, and thinking creatively helps students make new linguistic connections and test out theories of language. It has been argued that one of the main factors that inhibit creativity in the classroom is the predominance of IRE: initiate, respond, evaluate (Beghetto, 2010, p. 450). Within this framework students soon learn that their role is to answer or respond to the teacher's questions, which the teacher will respond to and evaluate. As the teacher usually has a 'correct' answer in mind, students have few opportunities to explore or express their own ideas, theories and interpretations of language. Drama techniques on the other hand positively encourage this.

A creative process to select texts for EFL classes

Tara McIlroy

In this part of the forum the process of selecting short creative texts for classroom introduces some factors to consider: *usability; readability; ambiguity*. This short talk introduces a process of selecting short creative texts such as poems and song lyrics for the language classroom while explaining that rejection of unsuitable texts is part of the creative process in itself.

Literature, it has been argued, can be useful to motivate and assist in language learning (Oatley, 2011, Pope & Swann, 2011). Here the idea of "literature with a small 'l'" helps moves beyond the traditional view of classic the canonical texts of Literature (with a big 'L') such as Shakespeare or Dickens (MacRae, 1994). Small 'l' literature can mean any creative text. In everyday life, use of puns, alliteration, metaphorical expressions and jokes are all uses of creative language which reduce the narrow view of literary language existing only in novels (see Cook, 2000 or Carter, 2004 for detailed explorations of this). This is important when talking about student responses to texts which may include creative responses such as writing stories and poems themselves. The teacher must draw on various sources to help guide students towards language learning goals. Selecting short creative texts for classroom use is one example of a creative process.

Using a process to select some texts and reject others follows the "creativity is subtraction" mantra (Kleon, 2012), or what Keith Oatley calls "creative construction" (Oatley, 2011, p. 55). Kleon states that it is just as important to decide what to keep as it is to decide what to leave out. This conveniently gives the teacher room to make choices appropriate to the learning goals of students as well as the teaching context.

Pablo Picasso's suggestion that "Art is theft" (quoted in Kleon, preface) is echoed in T.S. Eliot's further explanation that "immature poets imitate; mature poets steal; bad poets deface what they take, and good poets make it into something better, or at least something different" (ibid.). One way of understanding this could be to say that creativity is something that all teachers should do for the improvements that they can bring to any project. As Bruce Springsteen suggested recently, nothing is original, that is to say we are living in a "post-authentic world" (NPR Music, 2012). Particularly in a teaching environment, the idea that originality is key to students' creative work can be prohibitive. An alternative, more inclusive view is required and necessary. Creative work does not need to be 'original', and in many situations it rarely is completely new.

First, the question of *usability* is introduced as part of the process in selecting texts. Is the text convenient and practical to use? Can it be adapted easily? How does it fit in with the needs and goals of the learners? These are all questions to consider when looking at the *usability* of a text. *Usability* is synonymous with the ideas user-friendly and learnability. The teacher should make a judgement about this based on the needs and wants of the learners. Working with students of any age, teachers are often required to make judgements from their understanding of content, appropriate text type, genre, and interest. This is the first step in the creative process of choosing what to select and what to

exclude in a course.

Reading research has investigated at length what is meant by *readability* and the complex relationship between texts and readers. One example of this is Stanley Fish's concept of the *interpretative community* which suggests that groups interpret ideas collectively, sometimes independently of the text itself (Fish, 1980). Readability across genres has shown that reading creative texts such as poetry requires more effort than reading transactional texts (Hanauer, 2001). Also, creativity in literary texts should be carefully considered by the teacher (Pope & Swann, 2011). Two simple aspects to *readability* should be considered by the teacher: 1) difficulty at the word level and 2) difficulty at the sentence level. Examples focusing on *readability* would be to conduct analysis at the word level, look closely at unusual grammar constructions at the sentence level or compare text types on similar topics.

The third point in this discussion related to *ambiguity* and its usefulness as a concept in looking for multiple meanings and encouraging original thinking. *Ambiguity* is generally thought as a possibility of the being understood in two or more ways. Discussing the impact of Practical Criticism (Richards, 1929, Empson, 1966) and inspired by the interesting points of *ambiguity* in popular songs and poems brings the understanding that *ambiguity* can encourage language learning because it presents multiple-perspectives. Looking at a text's potential for *ambiguity* can help to answer these questions and confirm the suitability of certain texts for use in EFL classes.

In summary, for those considering various steps in the creative process of selecting texts and rejecting others, a creative process is recommended. Primarily the process of selection itself can be creative. Also *usability, readability* and *ambiguity* are useful concepts to consider in the selection of texts. Doing this in a strategic way encourages development of learner materials, for example through using an online vocabulary profiling website or other source to gauge difficulty level. Finally, by focusing on ambiguity, learners can be surprised and challenged to think about new opinions while introducing multiple perspectives on a text.

Conclusions

The Critical Thinking, Speech, Drama and Debate and Literature in Language Teaching SIGs worked together in this forum for the first time. In exploring a wide range of topics in a short time the speakers and forum participants looked in depth at issues relating to their interests. While at times the speakers had differing opinions about their topics and interpretations, a shared desire for open discussion was evident.

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