Integrating Critical Thinking Throughout ESL Curricula

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The term critical thinking has been a part of the education vernacular for the past 20 years, beginning with the 1980 California State University Executive Order requiring critical thinking to be formally included in course instruction (Jones, 1996; Moore, 2004). Increasingly since that time (Erwin & Sebrell, 2003; Feare, 1992; Lee, Bers, & Storinger, 1992), educators have seen including the concept of developing critical thinking and analytical skills in curricular development and curriculum design as a given. A quick search of the internet or university libraries will lead a researcher to numerous sites and reference materials that detail educational system objectives and benchmarks based on, research and commentary papers concerning, and many definitions of critical thinking. This researcher would also notice that most of these references are culturally based in North America (Sacco, 1987). Language educators in other countries recognize that local educational systems may not endeavor to develop such skills with local students (Paul, 1992; Thompson, 2002), and in many ways, work to the contrary. Nevertheless, like other typical students, in their personal lives, nonnative English-speaking students make choices, evaluations, and judgments each day focusing on what information to access, what information to use, what to believe, plans to make, and actions to undertake (Howe & Warren, 1989; Paul, 1992). Unlike most students in western educational systems, however, many nonnative English-speaking students have not benefited from the explicit inclusion of developing critical thinking skills as an educational goal over a number of years (Stapleton, 2002). Based on these cultural points (Ramanathan & Kaplan, 1996), the question then becomes whether critical thinking skills should be included in a list of curricular goals in nonwestern countries (Thompson, 2002).

The importance of critical thinking in educational curricula has been extensively researched. Facione (1998) summarizes a number of reasons why critical thinking is important: critical thinking skills significantly correlate with college GPA and reading comprehension, technical information is changing so rapidly that what students learn in school may be in need of revision in four years after graduation (Kornhauser, 1993), developing critical thinking skills allows learners to think for themselves (on their own and in collaboration with others), and critical thinking through an informed citizenry is necessary for democratic institutions and a free market economy to flourish (Cromwell,

1992; Paul, 1992; Wolfe, 1996). Although research supports the assumption that sharpening learners' critical thinking skills benefits both the learner and society in many ways, there have been concerns that such an educational focus has been at the expense of providing learners with a necessary foundation of knowledge (Chaffee, 1992; Wegerif, 2002). Further research indicates that this is not necessarily the case, but rather incorporating critical thinking skills into a curriculum enhances the educational process. What is evident is that instructors may need to alter their approach to teaching from traditional methods to a more interactive model that challenges and interests students in order to help them develop their critical thinking skills (Chaffee, 1992; Paul, 1992). The academic context is an optimal situation to help learners cultivate these skills (Paul, 1992). While ESL educators may recognize the importance of critical thinking in educational curricula, many may become disillusioned because of the difficulty in implementing and motivating nonnative English-speaking students to become involved in critical thinking strategies and activities in the classroom.

Critical thinking, the process through which necessary cognitive skills and behaviors are used to decide what to do and believe, is a skill that can be taught (Esplugas & Landwehr, 1996; Varaprasad, 1997). Once taught, critical thinking skills are pervasive; they are useful throughout daily and professional experiences (Facione, 1998). Critical thinking is a skill like any other academic skill and can be provided through explicit instruction (Esplugas & Landwehr, 1996; Varaprasad, 1997). It must be developed over time, through a step-by-step process (Knight, 1992). Critical thinking is a skill that is also applicable to all academic levels and is necessary for academic preparation (Chaffee, 1992; Paul, 1992). In a beginning level language course, instructors would not ask students to produce a referenced academic essay. The ability for a second language learner to complete such a task is dependent on the mastering of many previous abilities and tasks (i.e., understanding basic rules of grammar, sentence, and paragraph structure, modes and levels of formality or writing, essay structure, etc.). Like the skills developed over time which allow a learner to successfully write an academic essay, developing critical thinking skills should be seen in the long-term. Focusing on the development of such skills over time leads to more successful critical thinking strategies than ad hoc emphasis or inclusion in only short-term goals such as an individual course (Howe & Warren, 1989). As a result, the development of critical thinking skills should be integrated through different levels of language programs (rather than reserved for those few students who reach advanced courses), and explicitly included in the planning of courses and curricula, focusing on appropriate tasks at each level. Before embarking on such a challenging task, however, it must be determined what critical thinking skills actually are, and how their development can be integrated into curricula.

Critical Thinking Skills

There are literally hundreds of definitions of critical thinking skills, and numerous papers and articles on their importance (Angelo, 1995; Egbert & Maxim, 1998; Erwin & Sebrell, 2003). The Delphi Research Report (American Philosophical Association, 1990) summarized the views of a group of international specialists into a paragraph expanding on what critical thinking is, its importance and use, and the disposition of critical thinkers. Ennis (1978) summarized the definition of critical thinking in a shortened version, indicating that it is a process incorporating the skills necessary to rationally decide what to do and believe. Definitions of critical thinking skills include a subset of cognitive skills on which critical thinking skills are based. Facione (1998) summarizes these as

1. Interpretation: the ability to understand and express the meaning associated with information, experiences, and beliefs.
2. Analysis: the ability to identify relationships, intended and inferential, among representations of information, experiences, and beliefs.
3. Evaluation: the ability to assess the credibility of representations of a person's perceptions or beliefs, and to assess the strength of the relationships on which those representations are based.
4. Inference: the ability to identify and utilize relevant portions of representations in order to draw reasonable conclusions, or form hypotheses or conjectures.
5. Explanation: the ability to state and justify one's reasoning.
6. Self-regulation: the ability to evaluate one's own process of reasoning, utilizing analysis skills, and through questioning, correcting and validating one's results.

Bloom (1956) classified learning behaviors in a taxonomy of learning objectives for teachers. Of these six classifications, three primarily focus on critical thinking skills: analysis (understanding of parts and their relationship to the whole), synthesis (putting parts together to create a 'new' whole), and evaluation (making judgments and assigning value to information). Similar to the overall approach taken with language learning, critical skills development can be adopted at appropriate levels. An important component of such an approach is questioning, which can be accomplished with learners whose language proficiency is other than the advanced level. Wakefield (as cited in Department of Education and Training, 2006) suggests that questioning regarding critical thinking can be placed in two categories: convergent, which primarily applies to the first three levels of *Bloom's Taxonomy of Learning Objectives*, and divergent, which primarily applies to the latter three. Within these categories, there are higher order and lower order subcategories, higher indicating a higher level of reasoning required. Low order divergent questions lead the learner to supply a reason or cause, including support for their answer, while high order divergent questions require learners to provide

opinions, speculate, propose solutions, assign value, or make judgments. Use of divergent questioning engages the learner in tasks that encourage critical thinking.

Wakefield (as cited in Department of Education and Training, 2006) goes on to provide a list of Bloom's levels, materials, and associated behaviors that are measurable in a learning environment (Table 1). In this list, language educators will find many activities and tasks that are already familiar to their courses. In many instances, language educators are implementing the foundation activities to promote critical thinking in their lessons, with only more explicit focus needed to ensure that such activities do in fact lead to the development of critical thinking skills.

Building on what language educators are already accomplishing in their classrooms, the inclusion of explicit course goals and objectives focusing on critical thinking skills, building from level to level, can be integrated into an overall language instruction program (Angelo, 1995). By doing so, instructors at each level could prepare students for the challenges at the next, utilizing level appropriate tasks, and avoiding unrealistic expectations that in turn may lead to frustration on the part of the instructor, and be counter motivational for students. By implementing such an integrated approach, language learners would be able to gradually develop critical thinking skills as they increase language proficiency, leading to a point where challenging tasks can be assigned and successfully completed.

Table 1

Bloom's Levels, Materials, and Associated Behaviors

Bloom's Level	**Materials/Situations**	**Measurable Behaviors**
Knowledge	Events, people, newspapers, magazine articles, definitions, videos, dramas, textbooks, films, television programs, recordings, media presentations	Define, describe, memorize, label, recognize, name, draw, state, identify, select, write, locate, recite
Comprehension	Speech, story, drama, cartoon, diagram, graph, summary, outline, analogy, poster, bulletin board	Summarize, restate, paraphrase, illustrate, match, explain, defend, relate, infer, compare, contrast, generalize

Table 1 (*continued*)

Bloom's Levels, Materials, and Associated Behaviors

Application	Diagram, sculpture, illustration, dramatization, forecast, problem, puzzle, organizations, classifications, rules, systems, routines	Apply, change, put together, construct, discover, produce, make, report, sketch, solve, show, collect, prepare
Analysis	Survey, questionnaire, an argument, a model, displays, demonstrations, diagrams, systems, conclusions, report, graphed information	Examine, classify, categorize, research, contrast, compare, disassemble, differentiate, separate, investigate, subdivide
Synthesis	Experiment, game, song, report, poem, prose, speculation, creation, art, invention, drama, rules	Combine, hypothesize construct, originate, create, design, formulate, role-play, develop
Evaluation	Recommendations, self-evaluations, group discussions, debate, court trial, standards, editorials, values	Compare, recommend, assess, value, apprise, solve, criticize, weigh, consider, debate

Note: From "Bloom's Taxonomy" by D. V. Wakefield. Paper presented to the Governor's Teaching Fellows, Athens, GA, November 19, 1998. Retrieved September 6, 2006, from Department of Education and Training, Government of Western Australia, The Education of Gifted and Talented Students in Western Australia Web site: http://www.det.wa.edu.au/education/gifttal/EAGER/ Bloom's%20Dara%20Wakefield.htm

Utilizing collaborative learning tasks and activities can aid in this learning process (Angelo, 1995; Cooper, 1995). Collaborative learning is a teaching methodology through which small groups of learners are formed and work together to accomplish a

common goal. Group members must work together in order to reach the goal and help each other in the process (positive interdependence), are individually accountable, participate equally, and are simultaneously interacting (Dotson, 2003). There is much research that suggests that the utilization of cooperative learning strategies encourages the development of critical thinking skills (Dotson, 2003; Gokhale, 1995; Kagan, 2002; Paniz, 2003). At the tertiary level, particularly when emphasizing an interdisciplinary approach (Tsui, 1999), Gokhale (1995) found that the use of collaborative learning strategies supports the development of critical thinking skills through group discussion, clarifying one's own ideas, and evaluating those of others. In addition, explicit problem-solving tasks and discussion of the process used to arrive at conclusions is useful (Angelo, 1995). Along with including the development of critical thinking skills at different levels of a language program, by including the collaborative learning form of pair or group work, helping learners achieve higher critical thinking abilities can be better achieved (Paul, 1992). (For a detailed description of research on and examples of teaching methodology that incorporates collaborative learning, see Kagan Online. com.)

The Context of Japan

Society in Japan is changing based on the economic difficulties during the last decade, the increases in globalization of Japanese companies, the recent growth in the Japanese economy, and an increased flow of information through information technology. Lifetime employment is becoming less and less common in Japanese companies, and with this shift, new expectations of autonomy and problem solving are increasing for new employees. The increasing number of foreign companies and joint ventures in the Japanese business environment also contribute to an increasing variety of expectations placed on newly recruited employees (Egbert & Maxim, 1998). Like those in other developed countries, the amount of information available to Japanese has significantly increased with access to the Internet (Internationalization Promotion Committee, Council for Science and Technology, Ministry of Education, Culture, Sports, Science and Technology of Japan [MEXT], 2002; MEXT, 2003b; Stapleton, 2002). In addition, the Ministry of Education, Culture, Sports, Science and Technology of Japan is increasingly emphasizing information technology, life sciences, and research and development (Tanigaki, 1998), along with developing curiosity in and promoting feedback from learners (MEXT, 2003a, Stapleton, 2002). Based on these changes, it seems that critical thinking skills development may be seen as a more valuable component of educational programs in Japan as educational systems change in order to meet the demands of society (Paul, 1992).

Developing a Practical Approach

A necessary prerequisite for implementing an integrated approach to teaching critical thinking skills is the establishment of an educational program that is integrated and interrelated (Chaffee, 1992). In a public school system, this is accomplished through national standards, local school representation, or school-based initiatives. At the tertiary level, individual departments, at times independent of others on campus, devise and implement their own curricula. At the World Language Center (WLC) at Soka University in Tokyo, Japan, the faculty have been involved in revising and editing the WLC curricula in order to provide a more planned and integrated approach to the courses the Center offers. Through this process, leveling and tracking of students has begun, course descriptions have been edited to ensure that courses at differing levels are related and build upon each other, and additional courses have been added to fill gaps, while ineffective courses have been eliminated. The resulting course offerings are listed according to levels in Table 2.

Table 2

WLC Course Offerings by Level

Level	Two Khoma[1] Courses	One Khoma Courses
Advanced Intensive 500+	English Communication: Advanced Intensive (Argumentation, International Comparative Education, Human Rights, Art and Peace)	TOEFL Preparation: Advanced Intensive
Advanced 480+	International Communication (Academic, Business, English Literature, Sociology)	English Communication: Advanced Academic Reading: AdvancedAcademic Writing: Advanced TOEFL Preparation: Intermediate TOEFL Preparation: TWE

[1]Khoma is the Japanese classification for a 90-minute period; therefore a two-khoma course typically meets twice a week, while a one-khoma course typically meets once a week during a given semester.

Table 2 (*continued*)

WLC Course Offerings by Level

Level	Two Khoma[1] Courses	One Khoma Courses
Intermediate 430-480	English Program: Intermediate	English Communication: Intermediate Academic Writing: Intermediate TOEFL Preparation: Intermediate TOEIC Preparation: Intermediate
Elementary 380-430	English Program: Elementary	English Communication: Elementary Academic Writing: Elementary TOEFL Preparation: Elementary TOEIC Preparation: Elementary
Basic 330-380	English Program: Basic	English Communication: Basic (Below 380)

Note: Scores for each level are based on the Institutional TOEFL Placement Examination.

Some Practical Examples

The implementation of critical thinking skills can be seen as a significant curriculum revision initially, but the process can be made easier with the inclusion of all instructors, and administrators and students, if possible. The first step in the implementation of explicit critical thinking skills into curricula is the determination of a definition on which all can agree (Feare, 1992). This step is crucial in order for all instructors to have a sense of ownership of the curriculum revision process (Lee et al., 1992; Paul, 1992). Next is to identify specific skills and associated classroom activities that can be included across the curriculum (Chaffee, 1992; Paul, 1992). These skills and activities must be level appropriate, including consideration of nonnative students' English language proficiency and level of critical thinking ability (Cromwell, 1992). At the end of this initial process, gaps in the curriculum will become evident. These gaps can be filled in with additional level appropriate skills and activities. After this process

is complete, the skills can then be placed explicitly in the overall curriculum through benchmarks (Cromwell, 1992), course descriptions (Feare, 1992), grading (Paul, 1992), or other components of the written curriculum (Cromwell, 1992; Feare, 1992). As a result, the critical thinking skills, tasks, assessment procedures, and descriptors become part of the lexis of the institution. As these skills become more integrated into classroom practice, consideration of critical thinking skills begins to influence test development, course syllabi, other classroom activities, other assessments (including speaking and writing), text selection (Knight, 1992), materials development, and other institutional programs (such as self-access centers). Students also begin to notice the changes in classes. While these changes may not be clear to students initially, what does seem to immerge is recognition among students between courses that focus on the development of critical thinking skills and those which do not. Nonnative students who are motivated, particularly those who wish to study abroad, begin to seek out those courses that do focus on the development of critical thinking skills. In addition, many of these classes include other components of English for Academic Purposes (EAP), such as study skills. These students realize that while these courses may be more challenging, these courses also help them meet their own language learning goals. Likewise, instructors in other departments may begin to notice the differences, in not only the courses but also the students who attend them, and adjust their courses and/or curricula in similar ways.

Based on the definition of critical thinking skills, the categories listed in Bloom's taxonomy (and utilizing a collaborative learning approach), and making use of divergent questioning techniques, a number of examples can be suggested as to how developing critical thinking skills can be integrated at different levels of a language program (Table 3). Many of these tasks are currently occurring in the ESL classroom: for example, Socratic questioning (Esplugas & Landwehr, 1996; Heyman & Daley, 1992; Koshi, 1996; Tsui, 1999), reading tasks (Duad & Husin, 2004; Sacco, 1987; Sutton, 1989), outlining and summarizing (Sutton, 1989), conducting group discussions (Sacco, 1987), and writing well-supported essays (Ramanathan & Kaplan, 1996; Sacco, 1987). With the increased availability of information on the Internet, evaluation of information accessed for course projects at upper levels is becoming a more important skill for learners (Henderson, 2003; Jones, 1996), and could be used as an example at many levels. Sunda and de las Brisas (2002) also provide an interesting example of how a well-known fairytale can also be examined using questioning based on Bloom's taxonomy.

In Table 3, it is evident that critical thinking tasks assigned are based on both students' levels of critical thinking ability and proficiency in the second language. For example, at the Basic level, students are asked to agree and disagree with statements and support their answers in simple ways, compare and contrast (i.e., Student A is taller than Student B), and rank items (Sutton, 1989).

Table 3

Integration of Critical Skills Development Tasks in WLC Course Offerings by Level

Level	Two Khoma Courses	One Khoma Courses	Practical Examples
Advanced 500+	English Communication Advanced: Intensive (Argumentation, International Comparative Education, Human Rights, Art and Peace)	TOEFL Preparation: Advanced Intensive	Developing and supporting referenced argumentative essays, juding credibility of a source, comparing and evaluating educational systems formulating new and explaining decision processes and rationales for answering TOEFL questions
Advanced 480+	International Communication (Academic, Business, English Literature, Sociology)	English Communication: Advanced Academic Reading: Advanced Academic Writing: Advanced TOEFL Preparation: TWE	Explaining decision processes and rationales for answering TOEFL/ grammar questions, comparing/contrasting literary themes, evaluating main points in anessay with appropriate evidence

Table 3 (*continued*)

Integration of Critical Skills Development Tasks in WLC Course Offerings by Level

Level	Two Khoma Courses	One Khoma Courses	Practical Examples
Intermediate 430-480	English Program: Intermediate	English Communication: Intermediate Academic Writing: Intermediate TOEFL Preparation: Intermediate TOEIC Preparation: Intermediate	Proposing possible soluations to global problems, identifying and (peer) evaluating paragraph structure, explaining decision processes and rationales for answering TOEFL/TOEIC/ grammar questions
Basic 380-430	English Program: Elementary	English Communication: Elementary Academic Writing: Elementary TOEFL Preparation: Elementary TOEIC Preparation: Elementary	Agreeing/disagreeing with statements (with support), identifying and (peer) evaluating sentence structure, explaining decision processes and rationales for answering TOEFL/ TOEIC/grammar questions

Table 3 (*continued*)

Integration of Critical Skills Development Tasks in WLC Course Offerings by Level

Level	Two Khoma Courses	One Khoma Courses	Practical Examples
Basic 330-380	English Program: Basic	English Communication: Basic (Below 380)	Agreeing/disagreeing with statements (with extended answers), offering options, predicting outcomes of conversations, comparing and constrasting, ranking according to importance (with explanations)

For Elementary students, while speaking remains an important focus, writing begins to be emphasized. Students can begin to analyze grammatical structures (Koshi, 1996) and write paragraphs with organized ideas (Sutton, 1989). Developing simple individual student presentations on self-selected topics also begins to be emphasized (Tsui, 1999). Writing continues to be a focus in the Intermediate level, as students begin to write more complicated essays (Ramanathan & Kaplan, 1996; Sacco, 1987), outline, summarize, self-evaluate (Sutton, 1989), choose writing topics that are based on more current events (Sheridan, 1992), express opinions through editorials (Gareis, 1997), and conduct simple research projects on global issues (Tsui, 1999).

At the highest levels (Advanced and Advanced Intensive), in both critical thinking and language proficiency requirements, the skills necessary to complete course tasks become quite evident. Students are required to analyze literary content, develop APA referenced argumentative essays which are evaluated by the instructor as well as their peers, and present their main and supporting points logically and clearly (Knight, 1992; Sacco, 1987; Thompson, 2002; Varaprasad, 1997). It is important to note however that

because students have progressed through previous levels, these higher level tasks are not surprising or overtaxing, but rather recognized as the next step in students' academic progress.

From the examples in Table 3, it seems clear that the major shift as a result of explicitly including the development of critical thinking skills in a course curriculum is not an addition of new materials or activities, but an alteration of current practice. The change is in the area of focus rather than content. The development of a critical thinking pedagogy moves beyond simply challenging learners to think, or teaching argumentative strategies, but rather helping students understand and reflect on their critical thinking activities in order to improve their skills in this area (Gocsik, 1997). With the addition of a collaborative learning approach, many of these changes would become self-evident, and would work to enhance the environment of a communicative learning situation. At the same time, making use of level-appropriate learning tasks and questioning is necessary. Rather than overwhelming students, instructors can challenge them at their level while preparing them for the next. In the examples provided, and based on the discussions above, the development of critical thinking skills does not take the place of improving language proficiency, but rather enhances the process.

Assessment

If critical thinking skills development is to be included in the goals and objectives of courses within a language program, it is necessary to be able to assess to what extent learners have been successful in obtaining these skills through a particular course. However, many current forms of course assessment and grading, which rely heavily on rote learning, are ineffective when assessing critical thinking skills (Knight, 1992). In the educational marketplace, there are numerous standardized instruments that can be used to assess critical thinking skills (Bers, 2005; Egbert & Maxim, 1998; Erwin & Sebrell, 2003; Duad & Husin, 2004; Feare, 1992; Moore, 2004; Testing Thinking, 1990). However, commercially available standardized assessments can be quite expensive when used with large student numbers. A second option is to develop an institution-specific assessment instrument (Bers, 2005) or integrated, ongoing assessment procedures within or across courses (Angelo, 1995; Cromwell, 1992). When developing an institution-specific assessment instrument, validity (Bers, 2005) and reliability (Erwin & Sebrell, 2003) are just two aspects of the instrument that need careful attention. Paul and Elder (1996) suggest using intellectual standards in order to assess learner reasoning. Such an assessment system may disregard how well-written an essay may be, for example, (which although could, and should be assessed within the same course), but rather focuses on whether learners are reasoning, and how well they are reasoning, allowing for partial credit for these critical thinking skills (Heyman &

Daly, 1992). Paul et al. (1996) suggest a framework for completing such assessment based on conditions that are necessary for reasoning to take place including the clarity of the students' purpose and problem to be solved, the comprehensive nature of the students' response (inclusive of different perspectives), the data and support used, and the reasoning and inferences the students employed. Self-monitoring (Angelo, 1995), self-assessment and instructor feedback (Bers, 2005; Cromwell, 1992) are also important aspects of the assessment of critical thinking skills. Students need to clearly understand what is expected of them in an assessment situation and have the opportunity to exhibit their reasoning skills (Cromwell, 1992) through analysis of real-world problems that are both challenging and interesting (Bers, 2005), and which are level appropriate. The complex nature of such assessments which allow students to make judgments, compare, analyze, and prepare counter arguments (Cromwell, 1992) indicates that they are also time-intensive to score. As a result, these types of assessment are typically course based (Bers, 2005), where one or two instructors can work together in assessing students based on an institutionally accepted set of standards (Erwin & Sebrell, 2003). Additionally, such assessment can be closely related to the expected outcomes of a particular course and can be ongoing (Cromwell, 1992). Like learning activities that focus on the development of critical thinking skills, the assessment of learners' activities must be level appropriate. As mentioned previously, more success in achieving learning goals related to developing critical thinking skills is achieved over time, through a step-by-step process. Likewise, assessment of students' achievement in this area should be incrementally based as to not overwhelm the learners or instructors.

In the example of the World Language Center (WLC), the use of a commercially produced assessment instrument for critical thinking is not possible due to financial considerations. During any given semester, approximately 3,400 students are enrolled in WLC courses. While critical thinking skills have been explicitly added to all course descriptions, an institutional-specific assessment tool for critical thinking skills has not yet been produced. However, as mentioned earlier, the development of critical thinking skills has become a part of the lexis of the instructors at the Center. As a result, critical thinking skills were included as a separate category within the institutional benchmarks, alongside speaking, reading, listening, writing, and increases in TOEFL and TOEIC scores. Additionally, while a specific instrument for assessing critical thinking skills has not yet been produced, the bandscales used to assess students' speaking and writing have been revised, and additional criteria related to critical thinking skills, most importantly clarity, logical presentation, and reasoning, have been added to both of these bandscales. A focus on critical thinking in self-access centers has also become apparent as well as in the grading and syllabi of individual courses and instructors. Development of a specific assessment instrument to assess students' critical thinking ability remains a

long-term goal, yet the inclusion of attributes of critical thinking in other assessment instruments and procedures is seen as a major step in the right direction, and a direct result of placing goals and objectives related to critical thinking skills explicitly in the curriculum of the institution.

Conclusion

Incorporating the development of critical thinking skills in educational curricula has increased in frequency since its beginnings in the 1980s. Research has indicated that the development of critical thinking skills helps students academically and promotes the overall development of society at large. In addition, critical thinking skills can be taught in the same way as other academic skills: These skills can be integrated within an institutional curriculum and presented through a step-by-step process over time. At the same time, critical thinking skills are not a substitute for other knowledge and/or skills students must obtain, but rather can be used to enhance the overall educational experience. Integrating critical thinking skills into an institutional curriculum entails instructor involvement, curriculum revision, and explicit focus in course descriptions, institutional benchmarks and assessment procedures. In addition, this implementation process should be collaborative in order for all instructors to understand its importance and gain ownership of the process and the resulting curriculum. Like other situations in which instructors work with nonnative English-speaking students, in the Japanese context, the implementation of critical thinking skills takes on a cultural dimension as well. While Japanese and foreign language educators alike meet numerous frustrations when attempting to include the development of critical thinking skills in their curricula, most would suggest that it is a worthwhile, albeit challenging, educational goal. Although nonnative English-speaking students may have not benefited from educational systems which have historically stressed critical thinking skills, when viewed in a long-term perspective, many of the frustrating and de-motivating factors can be avoided by using a step-by-step approach, building on what is common in the communicative second language classroom (through utilization of a collaborative learning approach), and explicitly addressing critical thinking skills in level-appropriate learning activities across all levels of a curriculum.

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