Constructing Vocabulary through Self: An Environmental Science Case Study

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概　要

本稿では、ある特定のカリキュラムに焦点をあて、そのカリキュラムの教室内での成立過程と学習者による受容過程について分析を行った。一連の研究の初期段階の試みとして、本稿では主にディベートを中心とした環境コミュニケーションコースの授業を事例に、これらの過程が主体的に学ぶ学習者によって、複合的な学習領域へと変換できるという考察を行った。また、この研究手法を用いて、自らの教育実践を発展させるとともに、シラバスの再構築を試みた。今回の研究は教育学的観点からの分析にとどまらず、教育組織内の諸要因や教育組織を越えた諸要因についても分析の観点に含め、考察を行った。

(i) Analysis of my setting

The setting is an integral and essential part of learning and consequently of what is learned. Identifying and appreciating the setting is therefore a prerequisite of improvement through change. I will analyse my own setting using the following six pedagogical dimensions; educational goals, properties／ kinds of knowledge, roles／ relationships of teacher and learner, learning purposes, learning and assessment activities, and discourse.

Educational goals

For centuries, the Japanese cultural view of an educated person was based on someone able to study new knowledge from abroad in another language. During the Isolationist Edo period this study was known as Rangaku (Dutch letters) since western trade was exclusively dealt with through the Dutch in Nagasaki and when constitutional monarchy and limited democracy were introduced over a century ago under the Meiji Restoration the emphasis switched to British and American Studies in English. Even today, all students in tertiary level education are demanded to complete courses in English (or in some rare cases a language besides English) to graduate.

At most universities but particularly at National Universities like Nagasaki

University, academic excellence is emphasized over practical skills, causing similar epistemological issues discussed by Lewis (1999 pp130). Ironically, as indicated above, an academic is defined as someone with English skills, but English is learnt academically (through grammar-translation methods) rather than practically. Japan's poor record in international language tests such as TOEIC and TOEFL is a source of embarrassment at the personal as well as political level. The Government ploughs billions of dollars through tax subsidies and international exchange deals (such as the Japan Exchange Teaching Scheme) in English language education hoping to build up a momentum. This is especially true in the arena of Environmental Science, which the government is promoting at the international policy level.

Matsuda (2000) states that "The Faculty of Environmental Studies (FES) in Nagasaki University, was made by the merging of Science and Liberal Arts in 1997 as a new field, since society has come to recognise the importance of impending problems regarding environmental issues in the future". Personally I would look beyond our own institution to look at the popular and political support in Japan for Environmentalism in recent times. Politically, Clause 9 of the Post War Constitution bans use of military force so Japanese government needs other instruments for international cooperation. Japan has a huge ODA budget to effect this and regularly contributes to NGOs and developing countries. The reasons for this may not be purely altruistic, since the Kyoto Protocol was one instrument the Japanese Foreign Office hoped to use to slow (competing) developing countries growth. China is seen here as a potential environmental disaster, as was Chernobyl. Also The Foreign Office is often accused of using ODA grants to influence international policy through third world votes in international commissions, notably recently with the issue of whaling rights. At the more popular level, Japan's post-war growth was largely fuelled at the cost of the environment and pork-barrelling economic policies. A prosperous Japan now looks to the eco-friendly Scandinavians as role models for the future. So the explicit game plan at Nagasaki University's Environment Faculty is produce respected NGO officers and academics who can participate in the international arena and demonstrate world leadership in Environment Policy. Obviously spoken English ability plays a pivotal role in such a strategy. This contrasts clearly with the United States described by Soudien (1999 pp230) where curriculum is embedded in a discourse of domestic multiculturalism, Japanese English education is targeted towards creating a post-Industrial society which can participate in Globalisation.

The Policy Documentation comes from Prof. Matsuda (Matsuda 2000) She wrote the guidelines to appear in an in-house journal for the faculty. She is the key player pushing

for more effective delivery of skill-based programmes at the faculty. However, as I have no direct supervision, I am given room to interpret this definition of an educated person freely. I am aiming to raise confident practitioners of Environmental Science who are comfortable reading academic level texts in English and debating the merits of the content in public within a Socratic Debate framework To enable this I will have to encourage new study habits and develop student self-esteem so that they are able to take risks (by choosing a side in an argument) and apply the knowledge of their subject in an honest, principled, well balanced yet critical way.

The nature of the knowledge

I strive for a compromise between the search for understanding, the acquisition of essential knowledge and skills, the development of positive attitudes and the opportunity for positive action. Knowledge includes disparate items such as Environmental facts, to vocabulary, as well as experience of the debating process. I emphasize the connection between subject-specific knowledge and transdisciplinary skills and themes through enacted curriculum. Many students move on to careers in local government and business and I hope that they will be able to take the benefit of this course with them.

The roles and relationships of teachers and learners

My role as a teacher and my relationship with learners is based on a collaborative, almost collusive relationship to learning. Taking Freire's (Freire and Macedo 1999) view of pedagogy I am not just a facilitator or presenter of problems but a role-expert (expert learner, expert speaker of English, expert Environmentalist) and as such I need to provide direction. I strive to ensure that students are happy and feel positively about English despite negative feelings in some quarters due to the current political climate, America's role in the world, and English as a language of Colonialism. I am convinced that only then can they be empowered to take responsibility for their learning. Like Bruner (1999a), I consider identity and self-esteem to be essential as it is implicated in all aspects of the teaching and learning process, especially since in the Japanese English-language setting negative stereotypes abound reinforcing the concept that English is too difficult for non-specialist Japanese speakers to master.

Learning purposes

I am committed to structured and purposeful inquiry as a powerful vehicle for real learning and therefore genuine understanding. After Shulman (1999), I try to understand knowing as "the process wherein one moves from personal comprehension to preparing for the comprehension of others, (these) are the essence of the act of pedagogical reasoning, of teaching as thinking, and of planning-whether explicitly or implicitly-the

performance of teaching". They should be able to understand the other person's (Environmental) stance and respond to it in a principled, informed, critical manner. I want my students to enjoy deploying English as part of their true passion, Environmental Science in the hope that they find a new incentive to take their study further independently after my course ends.

Learning and assessment activities

It is essential for my practice that students have a clear understanding of their learning goals and what is expected from them. In the first class of the semester I take the opportunity to demonstrate on the blackboard how the teaching and assessment is structured. I reiterate my demands and expectations for the students, their role in the activities, how they are assessed, how I expect us to cooperate and create a learning-community, and what I conceptualise as a fruitful academic debate. Before each stage of the syllabus (former syllabus Appendix One, the new one Appendix Six) they are made aware of what we are doing, how it relates to them personally (in terms of personal and career development), why we are doing this and how I will assess success or failure. The assessment methods I am employing in this course draw on a broad range of techniques to give me a balanced view of my learners. Observations, performance assessments of presentations and role plays, process-centred grading (for example the development from concept maps, to speaker notes to final presentations), open-ended tasks, and finally through a two-part written exam (Appendices Four and Five). In Sainoo-Fuller (2004) I stated:

> *"Following Murphy and McCormick (1997, p463) "the nature of the task, the way. it is presented and the way it is carried out by the students" must be addressed to make our task culturally authentic (salient). I would go further and insist that the assessment process must also reflect that of practice in the wider Environment community."*

Although effectively everyone who attends the course will gain the General Educational Requirement credits, I give extra credit to enthusiastic participation, deepening of knowledge and the degree to which the student enters into the spirit of practice, by which I men how much they start to look and behave like incipient international Environmental Scientists.

Discourse

Language in is the vital element for students to be in social and cultural interaction, whether it be Japanese or English. It is fundamental to each and every pedagogical

dimension above. I try to emphasise English (spoken or written) as a vehicle for instruction, but will not discourage Japanese in the classroom where it aids understanding or facilitates peer interaction and scaffolding where the students' English ability will not suffice. I am interested in Lave and Wenger's analysis of discourse within a community of practice rather than about practice. Linguistic purists may suggest that English should be the one and only vehicle for understanding in a language class. I however contend that it would be artificial (non-authentic or non-salient) to expect a group of Japanese environmentalists preparing an academic debate topic not to slip into their native tongue, before stepping up to the stage to argue in English. By participating in realistic discourse, students make sense of the world and build their understandings.

(ii) Identification and description of the main challenges for developing practice

In Sainoo-Fuller (2004) I concentrated on developing the individual presentations, group presentations and debating areas of my Specified Curriculum (Appendices One and Seven). Recently in the classroom I have made a smooth transition towards what Sfard would describe with a Participation Metaphor, when the students past exposure to the English language was entirely through direct method teaching, and acquiring knowledge rather than deepening it. However, one problem which I have identified from the outset was the required textbook. Appendices Three and Four show the written exam which heavily draws on the student's use of the text.

As a glance at Diagram One (Appendix Two) will show, originally I used the textbook as a backbone of the course to enable the acquisition of Knowledge (lexical data) and Procedural Knowledge (how to acquire lexical data). In groups the students tackle one chapter, and summarize it in a group presentation to their peers, allowing everyone the opportunity to ask questions. It tended to be an authoritarian top-down teacher oriented experience. A teaching rather than a learning curriculum, a point made in Sainoo-Fuller (2003)[1].

However having carefully considering my setting and taking account of other participants and their perspectives I decided to shift my goals in the first half of the semester from implementing group presentations based upon the textbook towards student led **Environmental Newspaper projects** and thereby further enabling students to make sense of their learning. Instead of an acquisition metaphor basis to the first half of the course, we could jump straight into a participatory context. To help with assessment and to develop metacognitive skills, we documented the process in a process-folio. As a group the students built a newspaper from scratch drawing on their extant knowledge of Environmental matters and then individually each student could present one news story as if they are a television reporter. We did this both at the front of the class and we

could run it as a video project. I believe this was quite a radical change as students started for the first time to identify learning as a dynamic process rather than simply reflecting on the contents of the textbook and demonstrating their progress through accumulating vocabulary. This attitude is explicit in Freire's (Freire and Macedo 1999) description of the relationship between teachers and learners as one of critical co-investigation supporting meaning making. This aims at helping students develop their own narrative on learning, knowledge, assessment and the teacher-learner-subject relationship. The Environmental Newspaper is a way for students to reflect individually and in groups on a learning process described by Rogoff (1999) as a transformation of identity occurring through participation in communal activity. This is quite a radical change in my teaching as it means working on developing some acute reflection skills throughout the semester, changes how we deploy the textbook and also impacts heavily on my written exam and assessment regime. Instead of group presentations summarizing a chapter from the textbook I initiated student-led mini-conferences during which students were able to demonstrate their learning to me and their peers using the Environmental Newspaper. Through this process we think about how to present environmental issues in print and media, build vocabulary, and consider the importance and impact of articulating environmental issues through different types of media in the English language. This is a way, following Bruner (1999b), for us to 'think explicitly about our folk psychological assumptions'. Last year we relied heavily on an unpopular textbook. There were clear challenges for the students, in terms of assimilating vocabulary, preparing summaries and standing up to give oral presentations in front of their peers. In the new course I was able to push them one step further by having my students understand through their implementation of assessment, reflection and goals setting, that learning is a process and that they need to be self-directed learners during this process. This setting is the basis for them to become self-directed life-long learners of English for Environmental Science. This should also be a challenge for me as a teacher as it involves in guiding students towards deeper understanding of study through a metacognitive awareness.

Taking Alexander's framework (Appendix Seven), by focusing on giving an increasingly active role to the learners in assessing their learning and setting goals for themselves I am not only placing the learners in the centre of their learning but also allowing the experienced curriculum to help shape both the enacted and specified curriculum. This dynamic process is essential to improve my teaching and therefore help me support more efficiently my students' learning. I no longer have to rely on the textbook to spoon-feed vocabulary and structures to the students, when they can go out and find meaningful words for themselves.

The Institutional context

Change needs to be planned and implemented in a favourable context. A central point in Bruner's (1999a) chapter is that teachers who want to make pedagogical changes must find a way to present these changes diplomatically to colleagues and their students in support of the chosen pedagogy. My institutional context is very rigid outside of the classroom, and as I am not faculty at Nagasaki University I do not have a voice to enact change. Although technically the only top-down stipulation we have is the textbook, I have however spoken to my two other colleagues who have secretly abandoned the textbook to avoid creating friction with other colleagues. Sadly the students still have to purchase the book, which I feel is an unwarranted expense. I consulted with these colleagues too, explaining that I want to do an academic trial without the textbook for one semester, and despite initial reservations they were supportive of the initiative. All of my colleagues rely heavily on a Direct teaching method, and are showing cautious signs of interest in this project.

There still is of course a process of negotiation with resources (e.g.computer facilities, textbook usage in the future) and territories being disputed between different interest groups as described by McCormick (1999). Students on the other hand are always very enthusiastic to try something novel especially when it means that they do not have to fork out for a pricey yet unattractive textbook.

Meeting these challenges identified above

It is Gardner's (1999, p112) description of a process-folio that made me realise that I needed to redirect the emphasis of my work on vocabulary acquisition towards the process of meaning making rather than over-emphasise the final product, the written exam (Appendices Four and Five). I additionally want to avoid the common danger he points out (ibid, p97) of using assessment to "point up weaknesses rather than to designate strengths". Healy, cited in Williams ((1999) pp208) inspired me to imagine how this is possible with a student-centred writing project.

I had identified the textbook as a problem in my. I have to use a textbook, and it is the only one recommended by the Faculty. At 78 pages it is too long to expect students to read in its entirety in a semester, so as a working compromise I asked students to read a chapter in a group and summarize it as a presentation. Many presentations were lacklustre, some mere paraphrases of the text. It was useful though as a vocabulary source, and the topics interested most students. After the summaries, I chaired a short discussion of the topic, and we fielded questions to the presenters. But I had trouble assessing this phase of the specified curriculum, and as discussed in Sainoo-Fuller (2004), the format was attacked as unappealing by the students.

Having used a study diary to document my own research and learning for some time now, I realized that Bruner's (1999) approach to narrative building was valid. I resolved to implement a process-folio. With this in mind, I re-examined the fundamental question posed by Alexander, R. (1992) of 'how should what is specified in curricula be learned, taught and assessed?'. To make my goal explicit, I want my students to become self-motivated, self-directed learners of Environmental English. I want them to build a personal process portfolio over the course of the semester so that they can reflect on their progress and offer me something tangible to assess. Although they will be moving in and out of different task-groups over the 15 weeks, they can complete and annotated scrapbook with work in progress. The new specified curriculum is detailed in Appendix Six. The **Environmental Newspaper Project** will be the key part of their portfolio, acting as the foundation for the rest of the semester. The challenges I am facing are therefore (1) to have my students be actively involved in the assessment of their learning, (2) to reflect on their learning process and finally (3) to set meaningful goals for themselves.

I will leave the decision about what to include in the portfolio up to students themselves, but will discuss with them at the end of the semester why they included certain things. There are four basic linked activities in this dimension of the curriculum.

Activity One: The Environmental Newspaper. Week 1-4

Using the Faculty's Computer classroom I show the students the BBC Online environmental website and a few other NGO and news sites. Using printed newspapers and the handout in Appendix Five I explain the way headlines and text are written. In groups I get them to compose a mini-newspaper over the course of three lessons. Each student is responsible for two or three separate topics which we brainstorm as a class. The finished newspapers will be "published" by me as a mid-term assessment activity so that everyone can compare their efforts with their neighbours, as well as pick up vocabulary from each other (Bruner's scaffolding／ metacognitive awareness). The topics in these class newspapers are those which feature in the final written exam (part B) (see Appendix Four to compare this approach to the former exam based entirely on the textbook). Every semester, I expect part A of the written exam (Appendix Three) to feature much the same vocabulary, though I draw heavily on the students own Newspaper research when setting the questions.

Activity Two: The Newsreader Week 5

This activity replaces the group presentations in the former specified curriculum. Each student will present one of their writings as a news report in English like a Newscaster on television. When resources permit, I ask them to record this in pairs using a video camera, to give them the opportunity to repeat it until them are satisfied with the results (again self-assessment is a crucial metacognitive skill). Also this acts as a motivation

factor, since they do not have to talk directly to a class of their peers in English yet, and I could guarantee that they have never seen themselves speak in another language before. I show the video the following week to the whole class.

Activity Three: The Portfolio assessment Week 14

The students will have a one-to-one interview with me in English (or Japanese if really necessary) to talk about what and why they included in their portfolio. I anticipate that all their notes and concept maps, including those from the other debating activities will be included.

Activity Four: The Written Exam Week 15

The students write a single essay in 45 minutes in the style of a Newspaper article about an Environmental issue. The list of topics are drawn from the newspaper articles, but the students may not just re-write the topic they presented before. I give them a list of 10 possible topics a month before, and in the exam they have a choice from five. As before, the TOEFL essay criteria will be used to evaluate the written section (see for details: http://www.ets.org/toefl/#guide *Educational Testing Services* (TOEFL)).

Formative and Summative assessments

The objective of the first activity is to identify Environmental topics and assessment criteria with students by brainstorming and showing real examples of Environmental practice. I also explain very basically the TOEFL[2] criteria of written English (although I do not give them the handout in Appendix Five yet- I want them to figure it out mostly for themselves) and examples of written work from former students (anonymously as in Appendices Four and Five). At the end of this activity they should be able to identify a piece of work, an opus, that shows their process of learning. They should also be able to use their criteria to identify the best and the worst piece of work. Over time we reach an agreed understanding of expectations using criteria we make together to help us write and then assess our work. We gradually look into the structure of the opus, the words and the ideas. This formative assessment gives me a clear insight into students' understanding of the process-folio. I am able to remedy and address individual grammatical misunderstandings and vocabulary difficulties. I work from the students prior-knowledge and after Bruner (1999a) support them by scaffolding with their peers to improve their understanding and their practice. During this process there is constant self-assessment, peer-assessment and classroom assessment using group work which has been made anonymous[3]. As a teacher I use the same criteria and model the process with my own Environmental Newspaper project and portfolio. We ultimately create a range of acceptable compositions which we use to identify strengths and weaknesses in their practice. At the end of our work on Newspapers students gather and organize all their work and compare them against the criteria from the ETS TOEFL services (ETS:

http://www.ets.org/toefl/#guide). They then use this check-list to identify as a class (anonymously) the best and the worst pieces they have written. This work is placed in their process-folio with the criteria used clearly written in Japanese. The essential metaconcepts I want students to work on during this activity are those of reflection and responsibility for their progress. Students are challenged to examine their evidence, methods and conclusions. In doing so, they raise their thinking to a higher order of metacognition and encourages them to be rigorous in deploying evidence. I emphasized relative degrees of anonymity to playdown the negative impact of competition between students (Black (1999 p119)).

The goal of the group activity is to have the students use the criteria defined as a group to reflect on how much they have learnt and improved and how this improvement demonstrates their skills and knowledge Environmental English. This also helps them understand that they are not passive observers of their learning and can make and must make choices. They also understand better the importance of accuracy and appreciate the obligation to gather and interpret Environmental data with integrity.

The third activity, the one-to-one portfolio assessment, has students write about which key indicators of the criteria they have improved upon by comparing their best work and their worst work in front of me. This is an activity I have engaged with in the past in other courses and the students then enjoyed reviewing their progress, giving them a real sense of their achievement through time. This gives them very strong motivation to accomplish the next task as well as they can. Juxtaposing the student's worst and best work is a vivid demonstration of learning as an unwinding process. Another aim of the assessment is to have students vocalize goals for themselves using the criteria and the work they have reflected upon. They should be able to set some very clear goals for themselves and explain how they think they will be able to achieve these goals in the future. They use their check-list for goal setting defined as a group while I was modelling the Newspaper activity. For this third activity students use their reflection, their best work and the criteria, to identify how they need to improve their work and then set goals for the future. To keep these goals realistic students are invited to decide on the means they want to use to achieve their objectives. They know that the final written exam (activity four) is designed around the Newspaper project and they will therefore have the opportunity and time to improve their work. This reinforces the notion of learning as an on-going process and their role as being self-directed learners. This task, the debate and the final exam give me clear summative assessment for each student, although as I emphasized above, attendance (and participation) is the primary factor decided whether or not the students pass or fail the GER, and it is very unlikely that a student will not

even scrape through unless they have a disastrous attendance and display no interest in participating. To be honest the formative feedback is probably of more value to the students, for self development, and for myself when reflecting on our lessons.

Through these four activities I am addressing the challenges identified earlier of having the students meaningfully involved in the assessment process, reflect on their learning and finally set goals for their learning. Through the activities, definition of criteria and implementation there is constant formative assessment that gives both student and teacher clear feedback on how to improve this learning process. The process-folio that is constantly being modified throughout the semester is used as a summative assessment. This approach of assessment, reflection, goals setting and recording in their process-folio is then extended to other domains of their learning. These activities are fit in nicely with the usual teaching process that occurs in the classroom, as well as being authentic to the practice of academia and Environmentalism. The computer facilities are currently under-exploited by staff and students despite the clear potential for research. The internet is a tool that I am hoping to utilize more fully, so these activities are a gentle warm-up for the students. Some students need to take the TOEFL exam for admission to North American post-graduate courses, and all of the students will be writing reports (albeit in Japanese or English) when the enter government or industry after graduation. I suggest (as does Gardner (1999 p98) that the ability to be self-reflexive is a habit common to many highly successful creative people in all walks of life.

The teaching and assessment practice in relation to views of learning, knowledge and pedagogy.

With process-portfolios and throughout my teaching I endeavour to foist a dilemma (Lave and Wenger 1999) on the students which they have to define and think about for themselves. The criteria we use for our learning are not given by me until the process is well under way, but they are initially created by the learner and depend on their knowledge and experience of the situation. Throughout the portfolio process and the rest of my teaching, my practice is close to Newman, Griffin and Cole (1989) who describe that from a situated view of mind where the learner is agent, the basis of the whole task for learners includes the task of figuring out what the task is. This is why I try to push students to the centre of my teaching and create the necessary pre-requisite conditions for learners to become the constructors of meaning and knowledge. Bruner's metaphor of scaffolding is a tremendous image helping me support learners. My students enter the classroom with their own unique experience of the world and prejudices about English study on which they construct their learning. It is my responsibility to make sure, to paraphrase Vygotsky, they connect what is being taught in the classroom with their

previous knowledge. This is also why the portfolio process is so important in my classroom as it gives the students the opportunity to, in Bruner's words, 'go meta'. This is done through the personal narrative when students try and understand what is happening in the learning process. Explanation can come later. Students think about their own learning and by doing so help me, the teacher, reflect on my teaching and draw conclusions to improve my practice. Following Broadfoot (1999 p64) this empowerment of students in the process leads to students having "conscious awareness of their own strengths and weaknesses" and lead to intellectual liberation and an individualistic attitude towards study.

As I mentioned in Sainoo-Fuller (2004), my View of Knowledge is closest to the situated approach with individuals constructing reality. Because I see knowledge construction as being done by individuals, my teaching focuses on making sense of others' ideas, a meeting of minds, through collaborative processes grounded in language. My view of being knowledgeable or expert rests heavily on Vygotsky's concept of mind being transmitted through time/ space from those more able to those who are less so (Bruner, 1999a). It is through their becoming functioning members of communities that individuals construct their Selfs. That is why I place such an emphasis on meaningfully developing criteria through practice and applying this shared and agreed knowledge. This transformation of cultural knowledge to individual knowledge happens in the Zone of Proximal Development with problem solving activity being under my guidance as the teacher or more capable peer. This is why there is a strong emphasis during my teaching on cooperative learning.

After Bruner (1999b, p.17) I advocate that "a choice of pedagogy inevitably communicates a conception of the learning process". Also like Bruner, I have come to the conclusion that neither the computational nor the cultural theories are so linked to a particular model of mind that only certain pedagogical approaches are allowed. That does not mean that everything is admissible, on the contrary this opportunity to use the best approaches to address clearly identified needs requires a clear understanding of the requirements and pedagogical demands of the situation. When I deploy S-P techniques in the classroom, they are usually preceded and followed by interpretative meaning making, they are not used in isolation. Throughout my teaching, students' exchanges are central to the learning process. This has a direct consequence for how the learning situation is set up in which learners' experiences and diversity of experience can be appreciated by all. Students' reflections are just as fundamental as my own. Using Freire's (Freire and Macedo 1999) view of pedagogy, my role as a teacher is to create 'pedagogical spaces', using learners' expertise to pose problems to help them analyse their experiences and

reach a critical understanding of their learning context.

Challenges, constraints and opportunities I have needed to take into account when changing my practice.

I had to talk to my colleagues to keep them posted about my progress. If the Environmental Newspaper project continues to work well, and we can dispense officially with the textbook, the students will be delighted for a start. One danger is that if my colleagues adopt the Newspaper project and only enact it half-heartedly, the faculty may decide that a textbook is necessary after all to give structure to the course. The onus then is on me to communicate clearly in print and in person about the project. I also have to communicate carefully with them to ensure that we do not inadvertently enact similar curricula with the same group of students: the project may be fun the first time, but not the second time round.

It is exciting to be able to use English as a vehicle for Environmental content. Traditionally the GER courses are completely divorced from the students' specialisms, with English courses having low status since they are perceived as "conversation" or "travel" classes. By eroding this attitude I can hope to enhance the status of English as a teaching medium, and demonstrate that the students are capable of studying Environmentalism in English. I support Gardner and Boix-Mansilla (1999) when they insist on the duality between knowledge of the disciplines and subject matter. These metacognitive skills I am hoping to stimulate will be of benefit to students throughout their academic career and in other career contexts too. Although I want to share my goals and practice with colleagues (one of Black's (1999) criteria for effective learning and self-development), the priority has to be to avoid friction.

Sadly the managerial role of the summative assessment process is not ideal. The fact that the General Education Requirement is paradoxically crucial for graduation (everyone has to pass), yet valued lightly by senior managers (so they expect us to pass everyone) is sadly something we have to live with for the time being. However, in one sense it is liberating to be free of benchmark standards which we have to prep students for. Moreover, in terms of the students' self development, feedback from formative exercises as illustrated above is more useful, in that it is relatively immediate (they do not have to wait for their transcripts) and it carries personal meaning. Such feedback can be styled in such a way as to develop esteem, especially when it comes by scaffolding with a peer. Also as a teacher, I can spot students' specific needs in class and react to them (Black (1999) p119). Perhaps if the status of English education in the department is enhanced this situation will be resolved as the non-Faculty instructors may gain a voice

in decisions in the future.

One point carefully made by Freire (1999) is that I have to ensure that the student contribution is valid, authentic. Just because a student produces polemic, or even a benign article on global warming it does not follow that any deep understanding has occurred. It is possible after all to ape the language of experts without changing your practice, something acknowledge by Lave and Wenger (1999) in the study of midwifery practice. After taking a course, midwives effectively employed technical language to gain credibility, but delivered babies the same way they had for generations.

Small class size is an asset in my favour, and I am able to give each student a high degree of individual support. In the former textbook enacted curriculum, I was unable to help students much, and they had to listen to each others' presentations. With the Newspaper project we can all participate more fully all the time, and I can be more mobile within the classroom addressing students' needs as they emerge.

The biggest constraint in the enacted curriculum I face is time pressure. 15 weeks is short, and I am being ambitious with my specified curriculum, especially when one takes lessons cancelled due to typhoons or employment recruitment fairs into consideration. It will require lots of discipline and student motivation to enact in its entirety. Saying this, in my experience as a teacher, entering a classroom with too much material and choosing not to use some is far better than the opposite extreme. But time factors limit us to what we can achieve through the semester, so I will aim for depth of understanding in the activities over breadth of new knowledge. Quality is prioritised over quantity, as it is better to understand how the Environmental discourse fits together rather than rote memorize stacks of words (after Black (1999 p119)).

On a personal note, I have greatly enjoyed using the computer laboratories. I am a computer enthusiast, and I sincerely believe that technology is a valid motivational aid, as well as helping students simplify their work. Automatic spellcheckers, for example, eliminate embarrassing errors and maximise time efficiency. I have also found an incentive to reflect upon a new area of my practice as I learn my way around the Faculty facilities.

Conclusion

As an educator it is of crucial importance that I continually review teaching practice and demonstrate a commitment to self-development through lifelong learning. As I modify my specified curriculum, I should keep a keen awareness of my enacted

curriculum and the curriculum experienced by the students. Otherwise one is in danger of suffering from falling into the fallacy of assuming that because one had said everything one wanted to on one's lesson plan, a good lesson had been taught. Furthermore, when enacting change it is important to bear in mind what resources one has to deploy, whether they be access to the computer labs or one's colleagues future goodwill.

Bibliography and References:

Alexander, R (1992) Policy and Practice in the Primary Curriculum, London, Routledge

Billet and Rose (1999) Securing Conceptual Development in Workplaces in Murphy, P. (ed.) Learners, Learning and Assessment, London, Paul Chapman Publishing Ltd in association with The Open University

Bredo, E. (1999) Reconstructing Educational Psychology, in Murphy, P. (ed.) Learners, Learning and Assessment, London, Paul Chapman Publishing Ltd in association with The Open University.

Bruner, J. (1999a) Culture, mind, and education, in Moon, B. and Murphy, P. (ed.) Curriculum in Context, London, Paul Chapman Publishing Ltd in association with The Open University.

Bruner, J. (1999b) Folk Pedagogies, in Leach, J and Moon, B. (ed.) Learners and Pedagogy, London, Paul Chapman Publishing Ltd in association with The Open University

Broadfoot, P. (1999) Assessment and the Emergence of Modern Society, in Moon, B. and Murphy, P. (eds.) Curriculum in Context, London, Paul Chapman Publishing in association with The Open University.

Freire, P. and Macedo, D.P. (1999) Pedagogy, Culture, Language, and Race: a Dialogue, in Leach, J. and Moon, B. (eds.) Learners and Pedagogy, London, Paul Chapman Publishing Ltd in association with The Open University

Gardner, H. and Boix-Mansilla, V. (1999) Teaching for Understanding in the Disciplines-and Beyond, in Leach, J. and Moon, B. (eds.) Learners and Pedagogy, London, Paul Chapman Publishing Ltd in association with The Open University

Gardner, H., (1999) Assessment in Context in Murphy, P. (ed.) Learners, Learning and

Assessment, London, Paul Chapman Publishing Ltd in association with The Open University.

Glaser, R. (1999) Expert Knowledge and Processes of Thinking, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Greeno, J.G., and Pearson, Schoenfeld, A.H. (1999) Achievement and Theories of Knowing and Learning, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Heibert, J., Carpenter, T.P., Fennema, E., Fuson, K., Human, P., Murray, H., Olivier, A., and Wearne, D. (1999) Problem Solving as a Basis for Reform in Curriculum and Instruction: the Case of Mathematics in Murphy, P. (ed.) Learners, Learning and Assessment, London, Paul Chapman Publishing Ltd in association with The Open University.

Kliebard, H. M. (1999) Constructing a concept of curriculum on the Wisconsin frontier: how school restructuring sustained a pedagogical revolution in Moon, B and Murphy, P (eds) 1999

Lave, J. and Wenger, E. (1999) Learning and Pedagogy in Communities of Practice, in Leach, J. and Moon, B. (eds.) Learners and Pedagogy, London, Paul Chapman Publishing Ltd in association with The Open University

Lave, J. and Wenger, E. (1999) Legitimate Peripheral Participation in Communities of Practice, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Leach, J and Moon, B. (ed.) (1999) Learners and Pedagogy, London, Paul Chapman Publishing Ltd in association with The Open University

Lewis, T (1999)Valid Knowledge and the problem of practical arts curricula in Moon, B and Murphy, P (eds) 1999

Matsuda (2000) Guidelines for Syllabus in Language Communication (Part 1) Nagasaki University Faculty of Environmental Sciences (Nagasaki Daigaku Kankyoukagakubu)

McCormick, R. (1999) Practical Knowledge: A View from the Snooker Table, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

McCormick, R. (1999) "Curriculum development and new information technology", in Moon B. and Murphy P. (eds) Curriculum in context, London, Paul Chapman Publishing in association with The Open University.

Messick, S. (1999) Meaning and Values in Test Validation: The Science and Ethics of Assessment, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Murphy, P. (1999) Supporting Collaborative Learning: A Gender Dimension in Murphy, P. (ed.) Learners, Learning and Assessment, London, Paul Chapman Publishing Ltd in association with The Open University.

Murphy, P. (ed.) (1999) Learners, Learning and Assessment, London, Paul Chapman Publishing Ltd in association with The Open University.

Mercer, N (1995) The Guided Construction of Knowledge: Talk amongst Teachers and Learners, Multilingual Matters, Cleveland Cited in Murphy, P. (1999)

Moon, B and Murphy, P (eds) 1999 Curriculum in Context Open University E836 Milton Keynes

Nozaki, K.N. in Wadden (1993) pp27-35 The Japanese Student and the Foreign Teacher

Perkins, D. (1995) 'Towards a pedagogy of understanding' in Smart Schools, Better Thinking and Learning for Every Child', London, The Free Press Cited in Study Guide p167

Roth, W.M. (1999) Authentic School Science, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Rogoff, B. (1999) Cognitive Development Through Social Interaction: Vygotsky and Piaget in Murphy, P. (ed.) Learners, Learning and Assessment, London, Paul Chapman Publishing Ltd in association with The Open University.

Sainoo-Fuller, S (2004) Avoiding Dewey's Dilemma: Agentive Mind in Action『長崎外大論叢第7号』長崎外国大学・長崎外国語短期大学pp.69-82

Scheffler, I. (1999) Epistemology and Education, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Schon, D. (1987) Educating the Reflexive Practitioner, San Francisco, Jossey Bass, Cited in Study Guide p167

Scribner, S. (1999) Knowledge at Work, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Shulman, L. (1986) 'Those who understand; knowledge and growth in teaching', Educational Researcher, February 1986. Cited in Study Guide p167 following.

Shulman, L. (1999) Knowledge and Teaching: Foundations of the New Reform in Leach, J and Moon, B. (ed.) (1999) Learners and Pedagogy, London, Paul Chapman Publishing Ltd in association with The Open University

Simon, B. (1999) Why No Pedagogy in England?, in Leach, J. and Moon, B. (eds.) Learners and Pedagogy, London, Paul Chapman Publishing Ltd in association with The Open University

Soudien, C (1999) Race, culture and curriculum development in the USA : a study of the process of introducing a multicultural dimension into the curriculum in Moon, B and Murphy, P (eds) 1999

Takada K. (Ed.) (2001) Echoes of the Environment Interviews with 12 Japanese Leaders Tsurumi Shoten, Second Edition.

Takada, K. (Ed) (2003) Echoes of the Environment, Interviews with 12 Japanese Leaders Tsurumi Shoten Third Edition

Tierney, C. and Berle-Carman, M. (1999) Fair Shares, Cambridge Massachusetts, Dale Seymour Publications.

Williams, S.R. (1999) Mathematics (Grades 7-12), in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Wadden, P (ed.) (1993) A Handbook for Teaching English at Japanese Colleges and Universities Oxford University Press

Young, M. (1999) The Curriculum as Socially Organised Knowledge, in McCormick, R. and Paechter, C. (eds.) Learning and Knowledge, London, Paul Chapman Publishing Ltd in association with The Open University.

Web resources:

http://www.ets.org/toefl/#guide
ETS: Educational Testing Services (TOEFL) (last accessed September 7th 2004)

http://www.learn4good.com/languages/spec_english_toefl.htm
Learn 4 good, TOEFL examples (last accessed September 7th 2004)

http://www.collegeview.com/college/testprep/international/toefl_scoring.html
Collegeview.com TOEFL Scoring guides (last accessed September 7th 2004)

http://www.myenglishteacher.net/toefl/toeflinfo.html
MyEnglishTeacher.net General Information on the TOEFL test
(last accessed September 7th 2004)

http://www.gettoefl.com/types 4 .htm
Gettoefl.com (last accessed September 7th 2004)

Appendix One

2004 Sebastian Sainoo-Fuller's Former Published Syllabus for the Faculty of Environmental Science University Handbook The Specified Curriculum

Language Communication A1 and A2

授業のねらい

This course is aimed at developing students' communicative ability, focusing on current Environment Issues. Students who successfully complete this course will be able to

negotiate, debate and offer environmental solutions to an international audience.

Individual presentational skills, group debate skills, and academic presentational skills will be emphasized and examined through coursework that will contribute towards the final examination score.

授業内容と方法

The main reading text will be Echoes of the Environment (Tsurumi Shoten 2001, 2nd Edition). The students will be expected to do some reading outside class which will form the background for classwork. Using this text as a starting point student will be expected to gather together and introduce their own thoughts to the class. Students will give short individual presentations in the first half of the course, moving on to group presentations and finally debate. Although some basic English ability is assumed, examination criteria will be based on the ability to compose thoughts logically and present them in an informed, interesting and persuasive manner in English. Extra credit will be given to students who respond to other students' presentations in a thoughtful and stimulating manner. Although improvement in student's English ability is expected, students' development and participation will factor highly in the final grade.

授業計画

第一回	Orientation and Class Reading
第二回	Introduction to Group Presentations in English
第三回	Group Presentations (Textbook Chapter Presentation)
第四回	Group Presentations (Textbook Chapter Presentation)
第五回	Group Presentations (Textbook Chapter Presentation)
第六回	Pair Presentations (Free Topic)
第七回	Pair Presentations (Free Topic)
第八回	Gorillas In the Mist Video (Part I) and activity
第九回	Gorillas In the Mist Video (Part II) and activity
第十回	Introduction to Debating
第十一回	Balloon Debates, Celebrity Debates
第十二回	Introduction to Debating Environmental Issues
第十三回	Debating
第十四回	Debating
第十五回	Short written examination based on Echoes of the Environment

Appendix Two

Diagram One: Theory embedded in my practice.

A look at **Knowledge** vs. **Knowing, Procedural** Vs **Conceptual** knowledge and **Acquisition** vs. **Participation** in the Environmental Science Curriculum I am enacting.

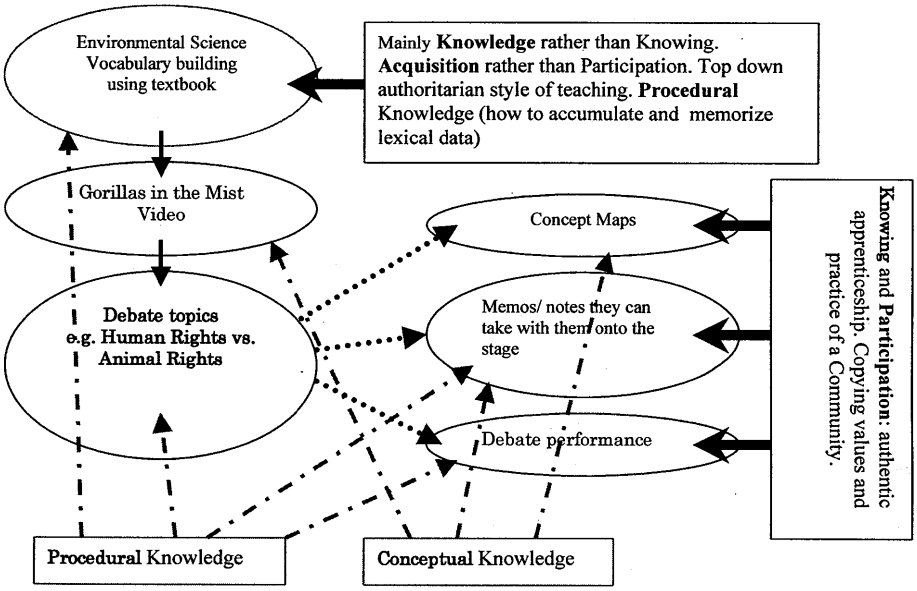


Diagram one illustrates how I view knowledge in each activity I am organizing with the students. Although I talk about my own philosophy of knowledge above in the light of my reading it becomes clear from this diagram that in practice I use all the properties of knowledge I discussed above. At the start of the course when we use the textbook, we use a Knowledge (as opposed to Knowing) approach, learning the process of acquiring lexical data. Yet a week later we make concept maps, exploring conceptual knowledge as a group. I follow Williams (1999 p207) in the sense that I am trying to balance procedural and conceptual knowledge: I would like to see my students make connections with different types of English communication and debating methods, not just memorize a "recipe for debating". [...]

Appendix Three

The written Exam part A. Questions and sample responses

Question paper

Japanese to English Environment Science Vocabulary Quiz. 15 minutes. This section is marked out of 10. Thanks to the bonus acronym section all the students scored highly in this section (many scoring over full marks). Vocabulary is important, but I am hoping to develop self esteem (Bruner) rather than memorization skills. Importantly, in Part B

the students may use their textbooks and dictionaries.

Part A Vocabulary

From the following 33 words choose **only 10** and translate them into English. **No dictionaries**

Chapters 1-5

①環境問題	⑬大量生産	㉕『ゴミの』分別
②経済発展（成長）	⑭大量消費	㉖指定された場所
③公害対策技術	⑮大量廃棄	㉗処理場
④酸性雨	⑯絶滅する	㉘資源ゴミ
⑤持続可能な開発	⑰市民社会	㉙保護団体
⑥化石燃料	⑱産業界	㉚私企業部門、民間企業
⑦共同実施という方法	⑲ゴミ処理問題	㉛反対運動
⑧温室効果ガスの排出	⑳地方自治体	㉜会則
⑨砂漠化	㉑『影響力のある』	㉝生物多様性
⑩産業廃棄物	㉒生ゴミ	
⑪太陽電池板	㉓ゴミの焼却炉	
⑫資本主義体制	㉔ゴミの量	

Bonus What do these stand for?

OECD	COP3	CO_2
WHO	NPO	UNICEF
UN	ASIS	AIDS
NGO	EU	SARS

Transcribed Sample Answer

Part A (*note 10 marks awarded*)

1. environmental issue	9. desertification
2. economic expansion	10. industrial waste
3. anti-pollution technology	13. mass production
4. acid rain	14 mass consumption
5. sustainable development	22 garbage

Bonus (*Note: 7 bonus marks awarded)*

OECD＝**政府開発援助**
WHO＝**世界保健機構**
UN＝**国際連合** United Nation
NGO＝**非政府組織** non governmental organization
COP3
NPO＝**非営利組織**
ASIS
EU＝**ヨーロッパ連合** Europe Union
CO_2＝**二酸化炭素** Carbon dioxide
UNICEF＝**国連児童福祉基金**
AIDS＝**後天性免疫不全症候群**
SARS＝

Appendix Four

The written Exam part B. Questions and sample responses

Question paper

The students choose 3 topics based on the textbook and write a paragraph on each. 75 minutes.

Dictionaries, notes and textbook are allowed.

Final Exam

Part B. Essay Questions

From the following questions, choose only 3 and write a paragraph on each.

* What can industrialized countries teach developing countries?
* How can we manage the "Energy Problem"?
* Can we solve the problem of waste through technology? (p20)
* What are the *social* benefits of Kawaguchi's recycling scheme? (p21,22)
* What is the relationship between Mass Production, Mass Consumption and Mass Disposal? What environmental problems does this cause?
* Why does Uchida (p43) think design is important to Environmentalism?
* Which are better, large NGOs or small ones?
* What are the differences between NPOs and NGOs? Are the differences important?
* Is environmentalism important to Japan's foreign policy? (Hint: think about the Kyoto Protocol)
* What is the Greenhouse Effect? Why is it a problem now?
* Why do Developing Countries mistrust the Japanese Government, according to Asaoka? (p14, 15)
* Ichida talks about "Asian Style Conservation" (p25) What does this mean?
* Look at Chapter 6 "Minamata Disease". According to Harada, why was the Japanese Government so slow to act and save people? (Hint: Is Minamata Disease only a problem for doctors? Who should have got involved sooner? What do we learn from this? P33)
* Chapter 7. According to Ichida, what are some of the reasons Japanese NGOs are

not so active as those in the US and Europe? Can you think of any other reasons, such as differences in the way they receive money, or their relationship with the government?

* Look at Chapter 9. How is NGES different from other institutions?
* What are the differences between US, Europe and Japan in their attitude to Environmental Issues? (p50, and other chapters too)
* Look at Chapters 10, 11 and 12. What do you think Nature is?
* What is a Fossil Fuel? Are they good or bad?
* Which countries suffer from Desertification? Does this effect other countries too? How?
* What is Biodiversity? Why is it useful?
* Which are more important human rights or animal rights? Why?
* What is a Civic Society?
* What is a well-designed product and how does this help the Environment?

.....End of test.....

Extracts of Student Responses (names have been removed):

These were graded using the TOEFL marking system (see http://www.ets.org/toefl/#guide *Educational Testing Services* (TOEFL)) Allowances were made for the fact that instead of a composition, the students are writing 3 paragraphs on different topics. Each paragraph is marked out of 6. The three scores are averaged and when weighed up against the result of Part A and their attendance record, are turned into an alphabet grade for the administrators. As long as a student participates in 70 percent of classes(i.e. does not just turn up but is actually active) and gets at least a B grade in the exam, they are assured of a passing grade. However, their score will be recorded on their academic transcript so it is their best interest to aim higher. Extra credit is awarded for originality, by which I mean using ideas from outside the textbook, based on personal experience, or personal opinion. Quoting from outside sources including other lecturers can fall under the definition of originality for the purpose of this exercise, since it demonstrates an engagement with the task and going beyond what is required as basic in the task definition.

An A grade (excellent pass) (4,5, 6 points/ paragraph average)

Example A

1. What can industrialized countries teach developing ones?

Industrialized countries have developed earlier than developing countries. So they is experienced too much. For example, high advanced technology/ pollution and so on.

Especially about pollution industrialized countries have an effect.

Future, developing countries will do mass production, mass consumption and mass disposal. These actions affect a great deal of damage to environment. Accordingly, many people will suffer. To prevent such a situation, industrialized countries have to teach anti-pollution technology.

To teach this technology, industrialized and developing countries need to build up a close connection. And, they should make a situation that is easy to direct (coach). Now, the earth is very valuable for the people of the world. So industrialized countries pursue their own interests.

2. What is the Greenhouse effect? Why is it bad?

Greenhouse effect is Global warming. Carbon dioxide accumulates into atmosphere by the mass consumption of the fossil fuel. Greenhouse effect gas such as CO2 and methane gas causes the earth warm like greenhouse.

So the Greenhouse effect leads to the rise of the air temperature. And by the rise of the air temperature, the rise of the surface of the sea is caused.

If the surface of the sea rises, our living are become smaller, And an ecosystem will change. Our important land and living things decrease, it is very sad. By our hand, we have to change this situation (... answer continues)

Example B

1. What can industrialized countries teach developing countries?

Industrialized countries had some environmental problems. Then, they solved their problems. For example, they had Minamata disease.

The problem caused by one company of industrial waste, mercury. This chemical substance was waste in Minamata Bay., and went round a food chain. Then Minamata people ate the substance and got serious ill.

Minamata problem was social problem. Because those who got ill was socially weak. So, industrialized countries can teach not only technology but also observing other side.

2. Which are better, large NGOs or small ones?

I think large NGO has a lot of member. So large NGO has a lot of money and they are powerful. In large NGO, the staff is specialist, while small NGO don't have much money, But they can move quickly and dynamic. In small NGO the staff is a volunteer.

So I think large NGO should tackle global environmental issue. Small NGO should tackle local one. I think that is best way for solve problem.

3. What is Fossil Fuel? Are they good or bad?

Fossil Fuel was ancient creature's dead bodies. For example, oil, coal, and natural gas. We can live richly to use the fossil fuel. However fossil fuels have carbon, sulphur

and nitrogen. When they are burned, the greenhouse gases are generated. Then they cause Global warming. This is serious problem, So fossil fuel is bad.

But we can't live if we can't use fossil fuel. So I think we should stop waste of energy. It is important that we study to control our lifestyle. (... answer continues)

An Upper B grade (respectable pass) (3 points/ paragraph average)
Example C

1. What are the social benefits of Kawaguchi's recycling scheme?

By propsing Matsuda that citizens should bring bottles, cans and paper to designated locations on a designated day each month for disposal, Kawaguchi city could save 750 million yen on the cost of burning the trash in its incinerator. Kawaguchi uses that money for community activities by local groups, such as of children, senior citizens and housewives. The benefits for Kawaguchi are not on financial ploblem but also on citizen's mind. It is very important thing that citizens active voluntarily to protect the earth.

2. What is the Greenhouse effect? Why is it bad?

The larger world population is, or the more we cut down trees, the more carbon dioxide on the earth is produced. Carbon dioxide absorbs heat. As a result of that, theaverage tempature in the earth rise year and year. That change influences the earth, for example desertification, rise of sea leve, ecosystem and agriculture, and so on. So the green house effect is neccessary, but when it is off the balance, it gives bud effect to the earth.

3. Which are more important, human rights or animal rights?

I think both of human rights and animal rights is very important. Human may have a lot of capacity, but (... answer continues)

Example D

1. What is Fossil Fuel? Are they good or bad?

Fossil fuel is a fuel such as coal or oil, that was formed over millions of years from the remailns of animals or plants. From that time on the Industrial Revolution, The humankind used plenty of fossil fuel. It gave us many progress of technology. But Burning fossil fuel cause carbon dioxide emissions and global warming. It is very serous issues. But I think fossil fuel is necessary for us. So I think fossil fuels are good.

2. What is the Greenhouse effect? Why is it bad?

The Greenhouse effect is caused by the Green effect gas. When we burn fossil fuel, the Greenhous gas such as carbon dioxide is discharged. The greenhouse gas catch the sun's warmth. It cause global warming. Global warming cause melting of the iceberg in the south pole. The surface of the sea is raised by melting of the iceberg. The small island

may sink beneath the sea. Therefore the Greenhouse effect is bad.

3. What do you think Nature is?

Nature give us various things. for example I can get various delicious vegetables from nature. I feel relax when I see a beautiful landscape. But nature give us bad things, earthquake, flood tornado

(... answer continues)

A Low B grade (Basic Passing Grade) (2 points／ paragraph)

Example E.

1. Non governmental organization is shorted to NGO, and nonprofit organization is shorted to NPO.

NGO is a charity organizarion, That is independent of goverment and bussiness.

NPO is a

2. Fossil fuel is oil and coal, natural gas. I ca't say whch is the better on. Fossil fuel is good for human. But, this is bad for earth. If we don't use this, our industrial didn't develop. And, we don't use electricity and gas, car, TV etc...

Fossil fuel burn→ global warming→ the destruction of nature

This thig is bad.

3. Biodiversity mean the existence of a a large number of different kinds of animals and plants which make a balanced environment. If few species life exist one place, this thing cannot do food chain. And top of food chain species survive, but they have no food.

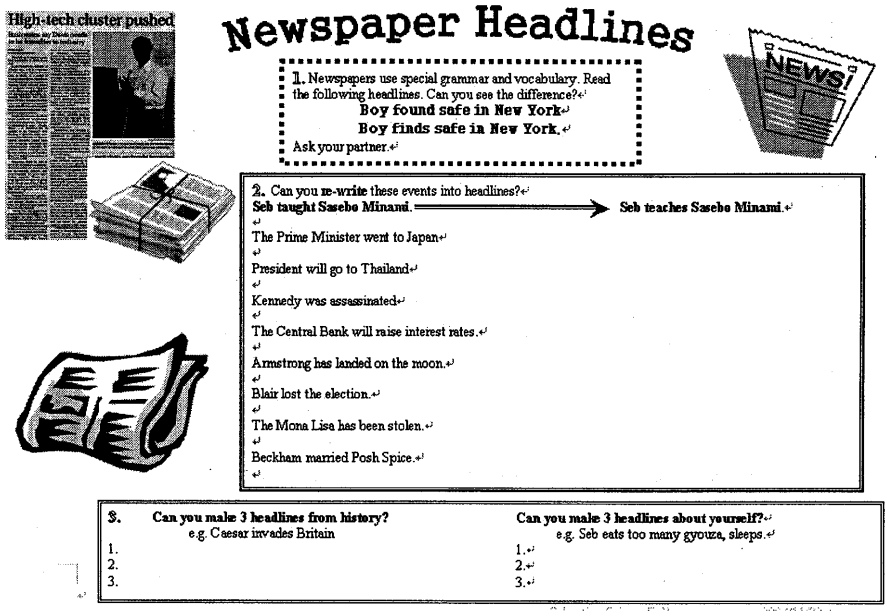
→ they become extinkt.

So, no biodiversity- no life.

Appendix Five

A newspaper meaning making exercise

This is not a simple substitution exercise although part 2 contains a grammar substitution drill. Parts 1 and 3 demand the students reflect upon meaning, especially section 3 where the students are expected to situate the activity in their own culture's historical context before speculating about themselves. This could be the basis of a group project to make an environmental newspaper, constructing along the way their own world view or Narrative (Bruner).



Appendix Six

2005 Sebastian Sainoo-Fuller's Completely Revised Published Syllabus for the Faculty of Environmental Science University Handbook: The New Specified Curriculum

Language Communication A1 and A2

授業のねらい

This course is aimed at developing students' communicative ability, focusing on current Environment Issues. Students who successfully complete this course will be able to negotiate, debate and offer environmental solutions to an international audience.

Individual presentational skills, group debate skills, and academic presentational skills will be emphasized and examined through coursework that will contribute towards the final examination score.

授業内容と方法

We will build a Personal Portfolio throughout the semester which will be assessed. There is also a Group Environmental Newspaper project and each student will give an individual presentation based upon an article they contributed. The students will be expected to do some reading outside class which will form the background for classwork. Using this Newspaper Project as a starting point student will be expected to gather together and introduce their own thoughts to the class. Students will give short individual presentations in the first half of the course, moving on to group presentations and finally debate. Although some basic English ability is assumed, examination criteria will be based on the ability to compose thoughts logically and present them in an informed,

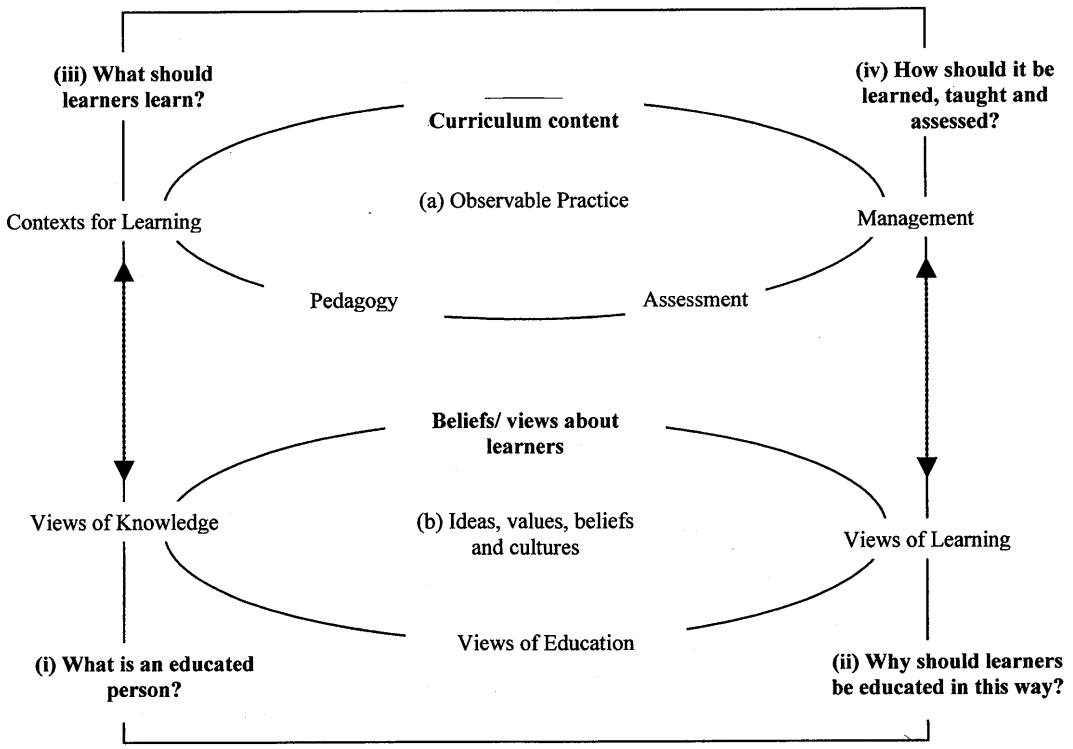
interesting and persuasive manner in English. Extra credit will be given to students who respond to other students' presentations in a thoughtful and stimulating manner. Although improvement in student's English ability is expected, students' development and participation will factor highly in the final grade.

授業計画 Lesson Plan

第一回	Orientation Explanation of Learning and Assessment Criteria Computer Classroom／ Former Students's work
第二回	Introduction to the **Environmental Newspaper** Project in English
第三回	**Environmental Newspaper Publishing Group Business Meeting**
第四回	**Environmental Newspaper Publishing Deadline (End of Class)**
第五回	**Individual Newsreader Presentations** ／TOEFL writing handouts
第六回	**Watch Video of Newsreader Presentations**
第七回	Pair Presentations (Free Topic)
第八回	Gorillas In the Mist Video (Part I) and fun activity
第九回	Gorillas In the Mist Video (Part II) and fun activity
第十回	Introduction to Debating
第十一回	Balloon Debates, Celebrity Debates
第十二回	Introduction to Debating Environmental Issues
第十三回	Debating
第十四回	**Student Portfolio Assessment Day** One-to-one interviews to evaluate learning over the semester and identify new areas of growth.
第十五回	Short written examination based on Environmental Newspaper Project

Appendix Seven

Alexander's framework for Curriculum Design, after Alexander (1992, p184)



1 "In terms of Sfard's metaphors, I intend to start off with an acquisition model to approach vocab-learning in the early stages (so the students can use guided interaction from the expert-teacher to explore their ZPD potential) before moving on to concentrate heavily on the participation model, where the students and teacher work together in an authentic environment to scaffold knowledge (Bruner)"

2 Educational Testing Service (ETS: http:／／www.ets.org／toefl／#guide)

3 Students will of course know which group produced the artefact, but will not know which student produced which articles.

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