

# The ACIE Newsletter

News from the American Council on Immersion Education

May 2002  
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## Immersion Education Down Under

by Michele de Courcy, Senior Lecturer in Language Education, La Trobe University, Bendigo, Victoria

**B**ilingual schooling is not a new phenomenon in Australia. Clyne (1986, p. 11) notes that before 1916 one could find sixty bilingual schools teaching in German, Gaelic, French and other languages at both the primary and secondary school level.

With the onset of the First World War, the bilingual schools were closed. During the 1970s, with the politics of multiculturalism, came a renewed interest in languages. The distinction between "community languages" and "modern languages" was removed, and the term "LOTE" (Languages Other Than English) came to be used for all. In 1981, a German bilingual program started at an elementary school in Melbourne followed, in 1984, by a French bilingual school located in the national capital, Canberra.

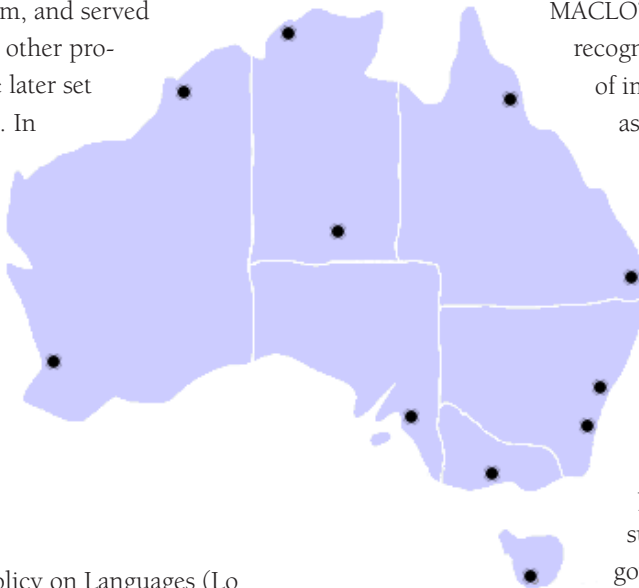
At the secondary school level, the first immersion program started in 1985 in Queensland (Berthold, 1995). It is a French immersion program, and served as a model for the other programs which were later set up in Queensland. In 1990, a Hebrew immersion program commenced at a private secondary school in Melbourne.

### AN EXPLOSION OF INTEREST

The National Policy on Languages (Lo Bianco, 1987) and the DEET White Paper

on Australia's languages (1992) both give recognition to the potential for children in immersion programs to achieve high levels of competence in LOTE, and in the early 1990s, interest in immersion programs exploded. The enthusiasm of those participating in the programs was communicated to the appropriate educational administrators who, in turn, transferred this enthusiasm into explicit government policy and funding to support immersion programs. However, this interest is concentrated primarily in two states – Queensland and Victoria. (Note that, in Australia, school education is funded and administered at a state level, even though the federal government does make pronouncements on education.) For example, in Queensland, the Ingram and John report (1990, p. vi) gave explicit support for the expansion of immersion programs throughout the state. The Victorian Government's 1994

MACLOTE Report also recognized the importance of immersion programs as "the best models for achieving high levels of communicative competence in LOTE." In both states, funding, specifically tagged for the establishment of immersion programs, was supplied to government schools. Funds were available to



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## THE ACIE NEWSLETTER

Volume 5, Number 3

### American Council on Immersion Education

Center for Advanced Research on  
Language Acquisition (CARLA)  
619 Heller Hall  
271 19th Avenue S.  
Minneapolis, MN 55455 USA  
Phone: (612) 626-8600  
Fax: (612) 624-7514  
<http://carla.acad.umn.edu>

### EDITORIAL STAFF

**Kimerly Miller**  
Editor, ACIE Newsletter  
695 Lincoln Avenue  
St. Paul, MN 55105  
tel: (651) 290-0223  
fax: (651) 227-6904  
[mille379@tc.umn.edu](mailto:mille379@tc.umn.edu)

**Diane J. Tedick, Ph.D.**  
Associate Professor  
Second Languages and Cultures  
Education  
University of Minnesota  
150B Peik Hall  
159 Pillsbury Dr. S.E.  
Minneapolis, MN 55455-0208  
tel: (612) 625-1081  
fax: (612) 624-8277  
[djtedick@tc.umn.edu](mailto:djtedick@tc.umn.edu)

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Technology has made the work of an editor much more efficient and expedient and this has been no more evident than in the planning and implementation of this final issue for the 2001-2002 academic year. Over the thousands of miles that separate North America from Australia, my guest editor, Dr. Michèle de Courcy, and I have corresponded on nearly a daily basis since November to bring you this special issue devoted entirely to the world of immersion education in Australia. Without the emailing of articles and letters and photos, and the occasional faxing of material that got lost in digital translation, this collaboration would have been a much more laborious process. It helped, of course, to be working with a colleague who is punctual, passionate, and cognizant of deadlines.

Australian educators have been long known for their innovations in literacy education and this thread runs through several of the articles we are publishing. On the other hand, the great distances that separate communities from each other, from institutions of higher learning, and from much of the rest of the world have created special problems for Australian teachers which have been tackled in creative ways (anyone remember stories of bush teachers using the airwaves to conduct their classes?). Today's technology, an example of which appears here, expands on the earlier

modes of auditory learning in ways that we can only begin to imagine. And, exposing students to authentic language when they are so far from the source requires innovative planning and financing, which is exactly what a girls' school in Queensland has decided to undertake. Moreover, languages that would be deemed "less commonly taught" in North America take on importance in the Australian context, hence, an Indonesian program is the focus of our research report.

I suggest that you begin with the introductory article by Dr. de Courcy, which will set the stage and introduce you to terminology specific to the Australian educational context. In particular, American readers will note with interest how the term "bilingual education" is used. In the United States, this phrase has become politicized and endowed (and bogged down, I might add) with meaning beyond the simple provision of instruction in two languages and has spawned years of controversy over the wisdom of learning in two languages. Australian educators maintain its original definition, referring to their immersion programs simply as bilingual programs.

To help our readers with a few of the more common terms we have included a glossary on page 6 to refer to as you are reading. We have also maintained Australian spelling conventions throughout.

## Immersion Education Down Under, *continued from page 1*

hire additional teachers, to allow time release for preparation of materials, and, in the case of Victoria, for internal and external evaluation.

In Queensland, one mainly finds secondary school immersion programs (with one, in German, at the elementary level), whereas in Victoria, one finds mostly elementary school immersion programs, with a few at the secondary school level. In these two states, the pioneer and lighthouse schools, to use Berthold's (1995) terms were, respectively, late immer-

sion and early immersion schools (see table page 3).

### EARLY OR LATE IMMERSION

The immersion programs currently found in Australia are either designed for the maintenance of a mother tongue other than English, or have as their goal the acquisition of a second language by children who speak English. Another distinction is that between the early immersion programs at primary school level

*Immersion Education Down Under, continued on next page*



## Summary of Immersion Programs in Australia

### NOTES ON TABLE

Language	Victoria		Queensland		S.A. <sup>1</sup>	W.A. <sup>2</sup>		N.T. <sup>3</sup>	ACT <sup>4</sup>	NSW <sup>5</sup>
Level	E	S	E	S	E	E	S	E	E	E
German	1	1	1	1	1					
French	1	2		4	1	1			1	
Indonesian	1			1						
Hebrew		1								
Arab L1	1									
Chinese L1	2									
Chinese L2	1			1						
Japanese L2	3		1							
Vietnamese L1	3									
Auslan <sup>6</sup> L1 & L2	2									
Greek, Slavic & Macedonian L1	1									
Italian L2				1		2	1			
Aboriginal Languages					n/a	4		21		
Other Languages										1

<sup>1</sup> South Australia<sup>2</sup> Western Australia<sup>3</sup> Northern Territory<sup>4</sup> Australian Capital Territory<sup>5</sup> New South Wales<sup>6</sup> Australian Sign Language

E = Elementary

S = Secondary

L1 = Heritage Language

Program

L2 = Immersion Program for

native English speakers

(children aged 5-11) and late immersion programs at secondary school level (children aged 12-18). There are also a small number of programs at the university level, in Japanese, Chinese and French. There are no total immersion programs such as those found in Canada, as the concept of a full immersion program has proved difficult to “sell” in the Australian context. Depending on the individual school or district, some late immersion students will have had exposure to the immersion language in elementary school. Others may have studied a different language at elementary school. In either case, their exposure to language learning is likely to have been minimal – usually only one-half to one hour of instruction per week.

In some schools, such as Camberwell Primary School in Victoria (see School Profile), the program is compulsory for every child in the school, but most programs are voluntary.

If the children have less than 50% of their timetable in the new language, the program is said to be a “bilingual program,” rather than an “immersion program.” But there are similarities between the programs in that they are all based on *teaching language through content*.

Researchers completing evaluations of some

of the programs (see bibliography) have found that parents always want to know:

- if the children’s English suffers in a language immersion program;
- if their knowledge of the content will suffer (especially if Math is one of the subjects taught via the second language);
- if the children will become proficient in the language used as the means of instruction.

Similar to the earlier Canadian investigations, positive outcomes relating to the above questions have been found in the Australian research.

### FINDING TEACHERS

The persistent problem with all immersion programs in Australia is finding the right sort of teacher – someone who speaks the language well enough to teach in it, *and* who has sufficient content-area knowledge. Coordinators of programs in elementary schools note the challenge. Those graduates with sufficiently high *language* skills have usually been prepared to teach that language and one other subject at secondary school level, whereas in the primary school, they need to be competent in *all* of the

*Immersion Education Down Under*, continued on page 11

Michele de Courcy

Senior Lecturer in Language Education

La Trobe University

Bendigo

Victoria, Australia

m.decourcy@bendigo.latrobe.edu.au

### SPECIAL ISSUE

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*Bibliography*, cont. on p. 11 sidebar


**BEST  
PRACTICES**

*Sharing ideas that work is the emphasis of this regular feature, Best Practices.*

*Program administrators can learn about school-wide initiatives that promote immersion principles. Classroom teachers can read about tried and true, practical instructional techniques that they might adopt for their classrooms.*

## *International Exchanges: The Glennie School*

*by Michael Berthold, Co-ordinator, French Immersion Programme, The Glennie School, Toowoomba, Queensland*

One difficulty that immersion programmes face in Australia is the lack of contact the students are likely to have with native speakers of the languages they are learning, especially with children of their own age. Certainly in some areas, such as large cities, there may be significant numbers of immigrants who speak that language, but establishing long-term meaningful relationships with these communi-



ties is often difficult.

One obvious solution is to establish links with schools in overseas countries with the aim of exchanging correspondence (letters, emails, CDs, videos), students, and eventually even teachers. The Glennie School chose this option as a means of giving their immersion students a meaningful and sustained contact with speakers of French.

The partial French Immersion programme began in 1998 at this Anglican girls school in Toowoomba, a small country town in Queensland, a 26-hour flight from Europe. The girls study Mathematics, Science, History, Geography and French, through French, from Years 8 to 10. The vast majority of the girls have had no contact with French before entering the immersion programme at twelve years of age. Some have had a very minimal contact,

but after the first couple of weeks there is no discernable difference in the two groups.

To encourage the girls to have a short-term realisable goal, it was suggested that they would have an exchange with a French speaking school during the second or third year of the programme. The 7-week exchange, costing around US\$1700 per student, is funded entirely through the fundraising efforts of the parents of the students. There is no government assistance. The pilot exchange programme in 1999 was with a school based in Geneva. The girls spent three weeks in the school, attended classes with their correspondents, and were hosted by families within the school. After the school stay they took part in a tour of the northern part of France.

This exchange proved to be very successful, with the girls' receptive and productive skills improving at an extraordinary rate. The following year students from the Swiss school visited Glennie as it was always intended to be a reciprocal arrangement. Unfortunately the Swiss school was unable to continue with the exchange, in spite of the outstanding success of our first attempt. Therefore, for 2001, other schools had to be found.

To cut a very long story short, two schools were found which were willing to host our students, and on the 22<sup>nd</sup> September 2001, thirty-three excited 14- and 15-year old girls flew to Europe with two of their teachers. It was decided to take both the Year 9 and 10 students every second year so that during the intervening year students from the European schools could visit us.

The Year 10 students stayed in Liège, Belgium, and were hosted by a different family each week due to over fifty families wishing to host an Australian student. The girls handled this changing system very well and made many friends amongst these warm, welcoming people.

*The Glennie School, continued on page 11*

**CONTACT INFORMATION**

*Michael Berthold*

*Co-ordinator*

*French Immersion Programme*

*The Glennie School*

*Herries St*

*Toowoomba, Australia*

*bertholdm@glennie.qld.edu.au*

# Text Comprehension Strategies of Children in an Indonesian Bilingual Program

by Michèle de Courcy, Institute for Education, LaTrobe University, Bendigo, Victoria

A particular focus of recent language education policies in Australia has been the teaching of Asian languages, and Indonesian has been selected as one of the priority languages.

During 1998-9 I conducted a pilot study at a primary school in a country town in northern Victoria that is running a content-based Indonesian program – the only such program in an Australian primary school. As the children are taught in Indonesian for only 35% of the school timetable, the program is classified as “bilingual,” rather than “immersion.” There are six classes of students involved in the program - two at Year 1/2, two at Year 3/4 and two at Year 5/6. An unusual feature of this program was that all these classes were started in the bilingual program at the same time – thus, at the time when the study was undertaken, even the year 5/6 group had only been learning Indonesian in the bilingual program for one to two years. The main content area delivered through the second language is Mathematics, with some sections of other Key Learning Areas (KLAs) also being offered, notably Dance and Studies of Society and the Environment.

The project aimed to investigate the text-comprehension strategies, especially the role of the first language (L1 - English) and the second language (L2 - Indonesian) of children in the Year 5/6 classes at the school.

## METHOD

The main part of this pilot project involved observations of the children's reading and problem-solving behaviors in the Mathematics classroom. Children were observed using the natural thinking aloud processes they employ to work on problem solving strategies, e.g. counting on fingers or talking to themselves as they solve the problem, as suggested by Cohen (1998). Extensive field notes and audio taping

were used in the classrooms. Meetings were also held with the teachers during the period of the study. An attitudinal questionnaire asked children about their language background, learning preferences, and self evaluation in Indonesian.

## QUESTIONNAIRE RESULTS

The only literacy tasks the Year 5s were confident of being able to do were read things on the board and instructions for Maths homework. The Year 6s, who were in the second year of immersion, were much more confident, and felt they could do nearly all of the tasks suggested on the questionnaire. The year 6 children's ranking of these tasks from most to least confident was:

- Read and understand a letter or note written in simple Indonesian
- Read and understand what my teacher writes on the board in Maths class
- Read and understand a story in simplified Indonesian
- Read the instructions for doing my Maths homework in Indonesian
- Understand a newspaper headline written in Indonesian
- Understand a sentence I haven't seen before in a book written in Indonesian about Australia or Australian animals
- Read and understand a factual piece written in Indonesian
- Read an Indonesian story book written for a person of my age, without using a dictionary

The questionnaire results revealed the children's reluctance to use Indonesian outside the compulsory context of answering a teacher's questions, but also a lack of embarrassment about using Indonesian in this context. The children reported that, outside the classroom,

*Test Comprehension Strategies, continued on page 8*

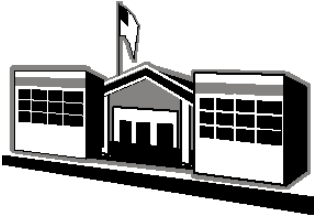


## RESEARCH REPORTS

*In an effort to push the edge of what we currently know about learning, researchers continue to design and publish new studies on issues important to immersion education. Keeping up to date with current research is a time-consuming task.*

*This regular feature will help inform the immersion education public about recent research by providing our readers with brief summaries of selected studies.*

**Author's Acknowledgments:** *The researcher thanks those colleagues in the LaTrobe University Language Centre for their assistance with the Indonesian translations and is grateful for the Australian Research Council Small Grant which funded this project.*



## SCHOOL PROFILE

*There has been dramatic growth in the number of immersion programs during the last decade. More and more communities have chosen to support this educational option, whose benefits to students are well documented. In this feature we spotlight immersion schools and explore factors that make each one unique.*

## GLOSSARY OF AUSTRALIAN EDUCATIONAL TERMINOLOGY

**bilingual education** = education in two languages/partial immersion (no full immersion programs exist)

**CSF (Curriculum and Standards Framework)** = scope and sequence as outlined by the Dept of Education, Training, and Employment in the state of Victoria (Melbourne)

**integrated unit** = themes taught across the curriculum in all of the Key Learning Areas

**Key Learning Areas (KLAs)** = 8 essential learning areas identified by the federal government

**LOTE** = languages other than English

**prep** = kindergarten (Year 1 = Grade 1 and so on)

# Camberwell Primary School Profile

*by Helen Warnod, Bilingual Program Coordinator, Camberwell Primary School, Camberwell, Victoria and Michèle de Courcy, Institute for Education, LaTrobe University, Bendigo, Victoria*

**C**amberwell Primary School is a Victorian government school established in 1867 in Melbourne, Australia. It became Victoria's first English/French bilingual government school in 1991 with an intake of sixty-three Prep children. Each year since then the school has added another year to the program with the school being completely bilingual by 1997.

Most of the children attending the school come from the local area, though, as the program has become better known, it has attracted families from other parts of Melbourne. The school now has a waiting list for entry and can only accept these families if openings are not filled by the local population.

## THE PROGRAM

The Bilingual Program at Camberwell Primary School is structured on two classes and two teachers, who work back to back with the students spending 50% of their classroom or homeroom time with each teacher. At each year level from 4 to 6 there are two sections and two classroom teachers, one English-speaking, the other French-speaking. To comply with the class size requirements of the Victorian Early Years Program there are now three classes at Prep to Year 3. Students move between the classroom teachers and specialist teachers.

English-speaking teachers deliver the English Literacy Program and French-speaking teachers deliver Mathematics and French Literacy. The other Key Learning Areas (see glossary) are covered through the Integrated Unit Studies (see Curriculum section) taught by English and French teachers and Specialist classes.

Until 1999 the Bilingual Coordinator also fulfilled the role of classroom teacher. The significant demands of the Bilingual Program on the leadership team were recognised by the principal and consequently the Bilingual

Coordinator took a coordination role without homeroom teaching responsibilities to allow for significant staff training, mentoring, modelling, professional development, program coordination and implementation.

## CURRICULUM COMPONENTS

### Literacy

The Bi-Literacy Program is based on the Victorian Early Years Project methodology (see websites sidebar, p.14) and is being progressively implemented across all the year levels in the school in conjunction with the Early Years Numeracy model.

At the beginning of the school year, students are grouped in Reading using internally developed reading activities. The aim is to repeat testing at the end of each school year. This internal data will be analysed for the creation of internal benchmarks for Reading.

Fortnightly meetings provide a forum for ongoing professional development and training of the French-speaking teachers. A French Literacy Aide has received some training from the Early Years Coordinator and has spent time in English Early Years classrooms for observation. The Aide is timetabled to visit classrooms in repeat literacy sessions and is available for managing a small group activity under the direction of the classroom teacher. The Aide also has a role in book maintenance and resource preparation for Early Years reading groups.

Extensive resources have been committed to the implementation of this program. The French teachers have a block of time daily for each class; one hour for the Literacy block and one hour for the Numeracy block

Cumulative assessment is passed on to colleagues at the beginning of the year about oral proficiency, reading and writing levels. Parents are given information about their child's aural/



oral performance and examples of Reading and Writing assessment tasks in French language each term.

### **Math Skills**

The Mathematics Support Program is in its fifth year. At the beginning of each school year students identified “at risk” in Mathematics are selected for entry into the French Mathematics Support Program which provides individual support by a trained teacher aide. The early introduction of the support program into the Prep area of the school has engendered significant improvement and, consequently, most students leave the individual instruction component of the program by the end of Semester One. The Teacher Aide is then timetabled in classrooms during numeracy lessons to monitor student independence and provide extra support, if required.

### **The French Transition Program**

Students entering Camberwell Primary School post-Prep [ed. note, after kindergarten] are eligible for entry into the French Transition Program. Entrants are assessed to determine their French language needs. The Post-Prep French Transition Program provides individual support for students enabling them to learn the vocabulary required to operate within a French Immersion classroom context. The program is delivered by the French Transition Aide under the guidance of the Bilingual Coordinator. Initially students are withdrawn two or three times a week from the classroom and work on a specially developed individual program.

### **Key Instructional Strategies**

Integrated Units are a primary feature of the program at Camberwell. The two partner teachers for each grade, one teaching in French, the other in English, collaborate on their planning of the term’s work. This usually involves the use of a theme, around which all instruction revolves in the key learning areas (KLAs). Some examples of past themes are the “mini-beasts” unit (see “The Bridge” in this issue of the newsletter), and a unit on “under the sea”.

A recent curriculum decision focuses on the

Information strand of the Technology KLAs which integrates Information Technology in the French language throughout the integrated units. (These units were already developed by teachers into a matrix drawing on Bloom’s Taxonomy of Learning Objectives and Gardner’s theory of Multiple Intelligences. See The Bridge article in this issue for an example.)

### **ASSESSMENT PRACTICES**

In Victorian schools, the basis for curriculum design and assessment is the Curriculum and Standards Framework II (CSF II) which consists

of descriptions of what children should know and be able to do at particular stages of their education, in specific learning areas from Preparatory to Year 10. Teachers are provided with a curriculum focus, outcomes, and indicators that students have achieved those outcomes, for each ‘strand’ at each level. The strands vary across the KLAs.

Evaluation and assessment is continuous and an integral part of all activities. The year level teachers keep detailed profiles on each child, collect work samples and analyses of work,

### **SCHOOL INFORMATION**

- *Camberwell Primary School*
- *Location: Camberwell, Victoria (suburb of Melbourne)*
- *Target language: French*
- *Type of program: partial immersion, Grades K-6*
- *Year program began: 1991*

### **ADMISSIONS**

- *Open to all children in the district*
- *Children outside of the district admitted only if places are not filled by families in the district*
- *Transition program for post-kindergarten admissions*

### **STUDENT POPULATION**

- *430 students in grades K-6*
- *27% of students speak a language other than English (LOTE) at home*
- *18 different languages spoken by students’ families*

### **STAFF/TEACHER**

#### **POPULATION**

- *27 teachers*
- *12 teach in French, 15 teach in English*



## THE BRIDGE

*Educational research is vital to validating effective practices, challenging ineffective ones, and encouraging innovations. Yet research is only valuable if teachers read and implement findings in their classrooms.*

*The Bridge feature is included as an insert to encourage teachers to collect them for future reference. We hope this pull-out insert will help immersion teachers stay abreast of the latest research and allow it, when applicable, to affect their own practice.*

**H**elen Warnod is the Bilingual Program Coordinator at Camberwell Primary School. A whole school French partial-immersion program has been operating at Camberwell Primary since 1991. Children are immersed in the French language for half of

their classroom time and have French specialist lessons such as Art and Physical Education. Helen has also been a classroom teacher and has taught a range of year levels since the inception of the program.

## Text Comprehension Strategies, *continued from page 5*

even when addressed in Indonesian, they reply in English, and this was the pattern observed by the researcher as well.

In relation to strategies, in particular, regarding the use of first and second languages, the students were asked two questions which related to mental arithmetic. Thirty-eight children reported that they used English to count when they are alone, and eleven selected Indonesian as their first choice. Note that these children initially learnt to count in English. For the more difficult operation of adding up numbers, forty-seven of the forty-nine children surveyed reported using English to add up numbers, with only fifteen putting Indonesian as their second choice. Only two children reported using Indonesian before English.

### STRATEGIES OBSERVED

In the classroom, the children were observed working together in small groups to solve problems, verbalizing their thinking processes, and also using drawings to aid them in the task. The children frequently turned around to consult charts on the back wall which show the Indonesian words for basic operations.

To solve word problems, the students employed the following strategies:

- i) Re-reading the problem out loud.
- ii) Use of the first language to understand the problem in the second language – this is where the children use the many loan words found in Indonesian to help their understanding.
- iii) Use of code mixing of the first language and the second language. They all do this to some extent.

- iv) Translation of certain key words as a means of comprehension.
- v) Translation of whole phrases or sentences
- vi) Use of a partner.
- vii) And most frequently – ignoring the words, looking at the numbers, and deciding on the basis of the numbers alone, which mathematical operation to use.

In the class selected for illustration, the children were solving word problems on a worksheet related to the current theme of “space.” I noted that they formed natural cooperative groupings, and I chose to observe and record two boys working together. Each question was first read aloud by one of the boys, after which they employed various strategies to solve the question.

In question 3 below, the boys used strategies i, iv, vi, and vii. (Note that the students were not provided with the translations given here to aid the reader!)

**Question 3. Sembilan astronot menghabiskan total waktu 1337 jam didalam simulatur.**

**Berapa jam masing-masing astronot itu tinggal didalam simulatur? \_\_\_\_\_ jam.**

*(Nine astronauts spent a total of 1337 hrs in a simulator. How many hours did each astronaut stay in the simulator?)*

We see first the use of a partner to make sense of unfamiliar key words in the problem:

### Extract 1

**C1 it's got 'jam' - what's jam?**

**C2 what's 'itu'?**

**C1 it's 1337 divided by 9 maybe**

**C2 masing-masing - I knew it (but can't now)**

*Text Comprehension Strategies, continued on next page*



The boys focussed initially on words they thought were key words to problem. When they couldn't understand them, they decided, on the basis of their experience with numbers, that they needed to divide 1337 by 9 (which was, luckily, the correct operation).

The second strategies illustrated here are ii and v. Quite often the children would write out a translation of the word problem on their scratch pads to help them work out the answers. In question 4, as illustrated below, one of the boys had written in English over the Indonesian words, "How many years after discovered ...and ... ." The word "Neptunus" was close enough to the English word "Neptune" for the student not to bother translating it. This problem was solved correctly.

**Question 4. Uranus ditemukan pada tahun 1781. Neptunus ditemukan pada tahun 1846. Pluto ditemukan pada tahun 1930. Berapa tahun jarak antara ditemukan Uranus dan Neptunus? \_\_\_\_\_ tahun.**

**How many years after discovered ...and ...**

**Berapa tahun jarak antara ditemukan Neptunus dan Pluto? \_\_\_\_\_ tahun.**

*(Uranus was discovered in 1781. Neptune was discovered in 1846. Pluto was discovered in 1930. How many years after Uranus was discovered was Neptune found? \_\_\_\_ years. How many years after Neptune was discovered was Pluto found? \_\_\_\_ years.)*

The final example is one which illustrates a typical error made by the children in bilingual classrooms – performing a one stage operation for a two-stage problem (Sherril, 1983). This is caused in this case by application of strategies iv and vii.

**Question 5. Pesawat A panjangnya 36.25 m. Pesawat B, 4.09 m lebih panjang dari Pesawat A. Pesawat C, 5.78 m lebih panjang dari pesawat B. Berapa total panjang keitga pesawat itu? \_\_\_\_\_ meter**

*(Airplane A measures 36.24 m. Airplane B is 4.09 m longer than Airplane A. Airplane C is 5.78 m longer than Airplane B. What is the total length of all three airplanes?)*

The task was to work out the total length of all three airplanes. This was a two stage operation, involving, first, working out how long each airplane was, then adding up the different lengths obtained.

With this question, the boys I was observing had first guessed that 'panjangnya' was how low the airplane flew. They guessed this because they thought that 36.25 m was rather low if 'm' was meters, therefore it must be miles (!) This is an example of how focussing on a key word and translating it incorrectly ('panjang' is length and 'lebih panjang' is longer) can lead to a totally wrong operation being used and a wrong solution resulting. During correction time, the teacher needed to draw a diagram on the board to explain question 5, as many children had been confused.

#### DISCUSSION AND CONCLUSIONS

There has, of course, been a great deal of research into problem solving behaviors of children learning mathematics in their first language. For example, Newman (1977, 1979) conducted think aloud protocols with sixth grade first and second language speakers of English. She discovered a hierarchy of performance strategies which a child needs to correctly solve a Maths word problem, ranging from word and symbol recognition to being able to work out that the question itself was faulty. In this study, using Newman's terms, the children have shown problems with word recognition, comprehension related to specific terminology, general meaning comprehension and transformation.

Large amounts of translation are still being used as a receptive strategy by these students, who are still in the early stages of second language learning. This is similar to my finding with French late immersion students in 1993. Then, students reported (and demonstrated) that translation as a receptive strategy was used

*Text Comprehension Strategies, continued on page 15*



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## Immersion Teacher Education through Audiographics<sup>1</sup>

by Tony Erben, Assistant Professor of Foreign Language Education & ESOL, University of South Florida, Tampa, Florida

Of the many so-called innovations which have occurred in the language education industry over the past thirty years, only two innovations have been credited with providing a *unique* contribution to the field. One is immersion pedagogy (Krashen, 1984) and the other is computer-mediated online learning (Warschauer, 1997). The aim of this article is (a) to provide a contextualised account of the linguistic and pedagogic changes which occur in a university teacher education immersion classroom when instruction is networked through the medium of one particular on-line technology, audiographics, and (b) to characterise the linguistics and pedagogic adaptations which take place in the classroom.

### THE LACITEP SPEECH COMMUNITY

The immersion context referred to above is a four year Bachelor of Education degree program called the Languages and Cultures Initial Teacher Education Program (LACITEP) at Central Queensland University in which up to 80% of the curriculum is delivered through the medium of Japanese. A second aspect of context relevant to this study is the need to educate student-teachers to teach in remote areas in Australia. In Central Queensland, where 61% of schools are in rural areas and 40% of these have a student population under 100, the population density ratio is approximately 1.8 persons/km<sup>2</sup> (cf. US 27/km<sup>2</sup>; UK 235/km<sup>2</sup>; and Korea 437/km<sup>2</sup>). In direct response to this situation, one of the requisite skill-based competencies to be acquired by students in the LACITEP program is proficient use of electronic media for distance education purposes.

### AUDIOGRAPHICS

The telecommunication technology utilised in LACITEP is audiographics. Audiographic technology is a network based media tool that facilitates multimedia conferencing, data conferencing and visual conferencing in the classroom. Providing a two-way audio and two-way virtual-visual computer link, it allows users to learn interactively, to store and/or send images and information from separate computers linked over a network. It enables linked sites to share screens in such a way that any information written or typed is immediately seen at all remote sites. Linked sites are thus able to share software tools such as Windows and use these interactively.

In adopting audiographics, student teachers are required to learn not only how to become immersion teachers but also to become literate in the use of electronic media. In this way, student teachers are preparing for the time when they are placed in Queensland schools and may have to teach foreign languages in distance education mode. Thus, electronic technology in an immersion context is not taught as 'object' but through its functional use in context-embedded, experiential situations.

There are a number of discourse patterns that audiographics provides. These include:

*Two-way interactive and synchronous white board.* The white board facility allows teacher and students to interact in real time. It permits participants to import documents and to rewrite on top of these documents which may be seen simultaneously by all participants at all sites. The white board facility could be enhanced with the addition of pentrays (these are electronic pens that enable a person to write on a graphic tablet or on a white board. Whatever is written

*Audiographics, continued on page 12*

<sup>1</sup> This paper is drawn from data collected from a project funded through the Committee for the Advancement of University Teaching and jointly conducted by Tony Erben and Leo Bartlett. The paper was first presented in the book entitled *WorldCALL* under the chapter heading 'Constructing Learning in a Virtual Immersion Bath: LOTE Teacher Education through Audiograph-



## *Immersion Education Down Under, continued from page 3*

Key Learning Areas (KLA) taught across the curriculum, especially Mathematics. The eight KLAs, recommended by the federal government and implemented via the state and territory education departments, are English, Mathematics, Science, Technology, Studies of Society and the Environment (or Human Society and Environment), Health and Physical Education, the Arts and LOTE.

For those programs which teach in aboriginal languages, there was recently a change in policy in the Northern Territory, where most of

them are located, and the Minister of Education decided to no longer support the bilingual programs. However, there was such a protest against this decision, both from within the Territory and from the rest of the country, that it was decided to evaluate the programs before discontinuing them.

For the rest, in spite of the difficulties related to staffing and workload, the enthusiasm of the children and of their teachers, and the ex-

## *The Glennie School, continued from page 4*

The Glennie girls performed well at school, with most girls achieving good results in Science examinations given to them in French. In fact, several girls scored higher marks than the Belgian students in their class - a very commendable effort. The Belgian Science teacher was amazed at their performance.

The Year 9 students went to Chaville, near Versailles, France, and also were a credit to themselves and the school. The computer teacher in particular was very impressed by their high level skills and is going to use some of the work developed by the girls for teaching his classes next year.

Feedback from the host families and teachers in both schools was very positive, and they were very impressed with the level of French of most girls - a testament to the effectiveness of the French Immersion Programme. Both schools are looking forward to having more Glennie immersion girls come to stay with them in 2003. In fact, some families have already put in requests to host again next time.

For the next two weeks both groups travelled together in a coach that we hired for our exclusive use. The girls visited the famous chateaux of the Loire Valley, medieval fortresses, art galleries, museums, battlefields of WWI (the Somme where over 46,000 young Austra-

lians died), the Normandy landing beaches of WWII, a recreated Palaeolithic/Neolithic site, numerous Gothic and Romanesque cathedrals along with the impressive Mont St. Michel. They also spent "free" days in St Malo and Rouen where the girls had plenty of opportunity to hone up their French language skills.

The last week was spent in Paris where the girls climbed the Eiffel Tower, shopped, visited the Louvre, shopped, saw Napoleon's Tomb, shopped, saw a play by Molière performed by the Comédie Française, shopped, attended mass at Notre Dame Cathedral, shopped along the Champs Elysées, climbed the Arc de Triomphe...

As we were to fly home from Frankfurt we arrived a day early so that the girls could spend a day experiencing a taste of Germany - too small a taste according to most girls. The girls also found it frustrating as for the first time on their trip they were not able to communicate with the local people - an indication of how comfortable they felt in France and Belgium. In fact, a number of girls suggested that for the next group we should teach them some basic German so that they could communicate with the local people and not have to rely on English, gestures and mime.

This experience truly opened the girls'

Devlin, B. (1997). *Links between first and second language instruction in Northern Territory bilingual programs: Evolving policies, theories and practice*. In P. McKay, et al. (Eds.), *The bilingual interface project report*. Canberra: DEETYA.

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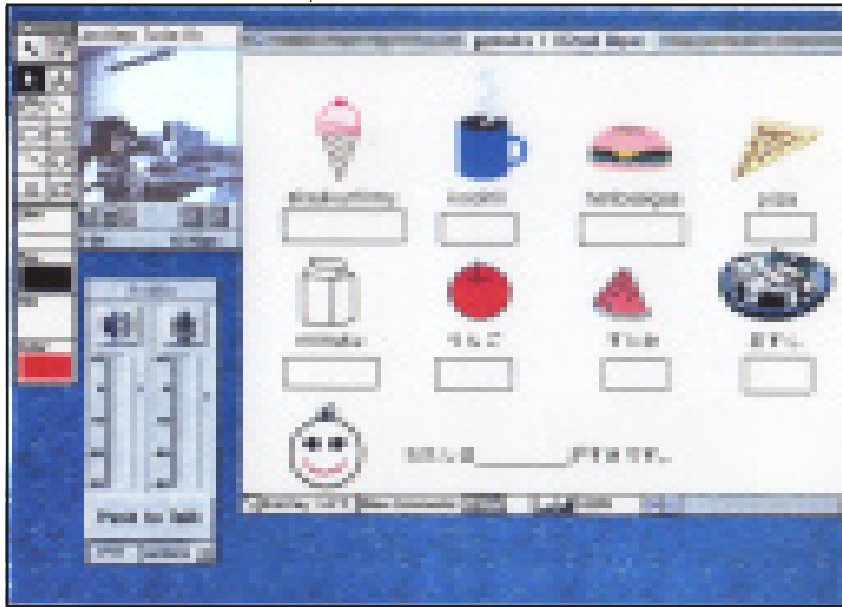
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## Teacher Education through Audiographics, *continued from p. 10*

on the tablet/whiteboard appears on the computer screen and then can be cut and pasted into a word document); however, the costs become quite exorbitant with large classes and many sites.



*Two-way interactive and synchronous chat window.* Both teachers and students may engage in an electronic chat window in real time. The 'chat windowspeak' or 'emailspeak' more closely resembles the linguistic characteristics of speech rather than written language. One participant can write a message in the chat window and when it is sent it automatically goes to all sites.

*Two-way interactive and synchronous audio.* Audio connections can be made through the internet or by way of telephone conferencing. At the very least, when using audiographics each site must have access to at least one telephone point connection. In the case where telephone conferencing is used for the audio, two telephone connections are needed.

The use of the internet for both the audio and graphic components of an audiographic session is highly desirable; however, where there are limited, old, or unsatisfactory telephone lines this will seriously impede internet

audio communication.

*Slide show.* Teachers can import computer generated pictures, which may be presented in the form of a video or still slides. The 'slide show' allows the teacher to speak to pictorial representations of lesson content and provide visual stimulation for students.

*Word processing.* While a teacher may select to deliver a lesson through use of one of these facilities, it is usual for multiple facilities to be used. Initially, all interactions between teacher and students are publicly monitored and all participants can see all work, writings, or displays. As the teacher learns to use all facilities through experience, it is possible for students to interact across sites without their interactions being mediated through the teacher. In such cases, much of the learning among students is 'private' in as much as students select a white board screen of their own choice.

### MEDIATED ACTIVITY THROUGH AUDIOGRAPHICS

Audiographic technology impacts the delivery of immersion teacher education in unexpected ways. Because there is no face-to-face access, teachers and individual student teachers tend to 'work harder' to produce pedagogic and/or linguistic cues that require **amplification** and/or **reduction**.

Amplification refers to those classroom discursive practices which participants modify by increasing the production, frequency and/or intensity of cues, signs, and behaviours. Examples of amplification include the necessity for teachers to increase question wait time due to delayed transmissions or the introduction of communication protocols, such as the use of '10-4' after each conversational turn, so that the teacher can organise turn-taking.

On the other hand, reduction refers to cues, signs and other discursive practices which are diminished, abridged or shortened in production, intensity or frequency when compared to the same practice in a regular face-to-face class-

#### CONTACT INFORMATION:

Tony Erben

Assistant Professor of FL Education

Secondary Education Department

EDU 162

4202 East Fowler Avenue

Tampa, FL 33620

phone: 813-974-1652

TErben@tempest.coedu.usf.edu



room. For example, the intensity of interaction between teacher and learner is noticeably reduced when both were trying to become used to the mechanics of the technology. A concomitant effect of the diminished classroom interaction is a reduction in work output. There also seems to be a reduction in use of other electronic media with an increase in audiographic application use. Similarly, there is a reduction in activities which are experiential, discovery, or inquiry learning based which need to be teacher directed or modelled (for example, PE demonstration lessons).

Lastly, when audiographics is introduced technical hiccups occur which stop the pace of the lesson. At first, teachers tend to concentrate on overcoming the technical hiccup rather than just readjusting the lesson with fallback activities.

There is, however, another element to consider. The amplification and reduction processes themselves contribute to a change in teaching and learning practices per se. In other words, amplifications and reductions warp 'given' instructional processes to such an extent that new processes are created especially when 'given' or old practices no longer suffice.

Over a seven week research period in which student teachers were observed, pedagogical and linguistic adjustments did not remain constant. In the beginning, many amplifications and reductions occurred as students and teachers alike attempted to adjust *known* classroom practices and routines to the requirements of learning and interaction mediated through audiographics. However, as classroom participants adapted to the use of audiographics, instructional processes came to be increasingly reconstructed in ways which represented a substantive shift away from how these processes occurred in face-to-face immersion classrooms. Interestingly, as these reconstructions increased, the number of pedagogic and linguistic amplifications and reductions decreased over the seven week period.

For students, the use of audiographics was somewhat collectivising because the reflector (the hardware device that allowed the establish-

ment of a finite number of learning sites) could only carry eight sites. Once they developed a 'feel' for the technology, the students became much more proactive in the learning process but also generally in taking and making decisions about classroom social dynamics (open on-task private communication, making decisions about what part of the technology to use within different groupings, making decisions about who types/who talks/who facilitates).

Multiple synchronous interactions and pathways to engage and construct learning/professional development opportunities through audiographics ultimately assisted student-teachers to internalise new ways of planning, organising, managing, delivering and communicating in their own multi-level and multi-proficient LOTE practicum classes.

#### CONCLUSION

The institutionalisation of audiographic technology is ongoing at Central Queensland University. It is represented by such activities as the integration of technology into specific subject units, and the building of research programs around the application of audiographic technology to immersion education. However, this process is still fragile in the sense that audiographics is only used within LACITEP (other program areas still have a choice of what technology to use; most use videoconferencing facilities). It hasn't been publicly available for mainstream students (outside LACITEP), it is not yet privileged institutionally, and staff would need to undergo professional development. However, outside the university setting, for example in Queensland, audiographics (or any combination of its component applications: email, whiteboarding, chat, word, CuSeeMe) is used extensively by teachers within the State and Private education systems. ○

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## WEBSITES

**Early Years Strategy: State of Victoria** (Department of Education and Training) 2001  
<http://www.sofweb.vic.edu.au/eys/>

**Camberwell School website:**  
<http://www.camberwellps.vic.edu.au>

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## *Camberwell School*, continued from page 7

complete checklists of learning outcomes and observe performance in groups and testing. The staff have developed their own French language objectives and learning outcomes for each year level, incorporating learning outcomes from the CSF.

There are a variety of strategies for reporting to parents:

- two individual parent meetings per year,
- an information evening early in the year (the school's way of reassuring parents that their children's academic development is not being retarded by the French program),
- a mid-year and end of year comprehensive written report.

American readers will notice in all the above the absence of reference to formal testing. State-wide testing has recently been introduced to Australian schools but is still in the trial stage.



### PROGRAM EVALUATION

The French immersion program is reviewed on an annual basis with input from all Bilingual Program staff. External evaluations have investigated parents' and students' attitudes; classroom language patterns, and the development of student skills in French and Maths. Researchers report children's enthusiastic responses to learning French which many regard as simply part of their school day. Those parents surveyed consider the program a success overall, saying its advantages revolve around learning another

language and developing openness to other cultures.

### PARENT AND COMMUNITY INVOLVEMENT

There have been some tensions in the past between those parents who were taught French by a more traditional method, and who would like to have seen a more grammar based approach, and those who understand and favour a more communicative approach. It takes continual and repeated communication between the school and its community to reinforce the program and promote a positive and enthusiastic support for its continuation.

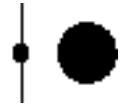
Parents are often to be found in the classroom, assisting the teachers in myriad ways. Indeed, without the extra hands, the Early Years Literacy Program can be rather difficult to manage for a single person, involving as it does, several learning centres in the one classroom.

### MEDIA RESOURCES

As with all immersion programs in Australia, finding the right sort of resources and materials for use in the class is a constant challenge. Setting the right balance between the level of cognitive development of the children and their language ability in the second language means that materials designed for native speaking children are not suitable, for the language level is too high. Similarly, materials developed for full immersion programs are also often not suitable because of the higher level of language involved. Thus, as in all programs in Australia, much teacher time and effort is put into the development of materials for use in the school's program.

### PROGRAM HIGHLIGHTS AND CHALLENGES

The school's principal notes that finding the right sort of teacher to staff the program is a



## Text Comprehension Strategies, continued from page 9

for about the first year of their program, being abandoned in favor of focusing on key words and still later reading for gist. In the examples shown here we see some examples of translation of perceived 'key words' and some of whole sentences.

It is important to note that the "translation" being used by the children is the process-type translation described by Kern (1994), which is a mental operation used to aid comprehension. This is different from the traditional type of translation exercises, whose primary purpose is not that of comprehension.

The simple operation of counting is usually carried out in Indonesian in the classroom, and sometimes when the child is alone, but more complicated operations are carried out in the first language. These children, who already have their basic mathematical concepts firmly established in their first language, are showing themselves to be efficient solvers of mathematical word problems.

From a reading perspective, the most disappointing aspect of these results is that, as hypothesized, the children are not yet really reading in Indonesian. They are either translating whole sentences or key words into English to help their understanding of the problem or ignoring the words and solving the problem based on the numbers alone. In the terms used in my earlier research (de Courcy & Burston, 2002), these children are still in the "translation as a receptive strategy" and "key words" stages. It will take more in depth and longitudinal studies in order to explore the strategies used by students at more advanced stages of the second language development.

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However, if you know of a foreign language immersion program that is not listed in the current directory, we would love to hear about it. Please send contact information for the program (contact person, telephone number, email address, postal address) to:

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# Integrated Curriculum: *Designing Curriculum in the Immersion Classroom*\*

*Helen Warnod, Bilingual Program Coordinator, Camberwell Primary School, Camberwell, Victoria*

Designing an integrated curriculum approach in Primary Immersion programs responds to such questions as: Why integrate curriculum? How can curriculum be best designed to cater for all learners? Is there enough time? Can we extend the range of language learning experiences by differentiating curriculum? How can we widen opportunities for learning when teaching and learning content in a second language (L2)? How proficient in L2 do children need to be?

Many more questions have been considered in the context of Camberwell Primary School where children's initial L2 acquisition is based largely on learning in the mathematics content area. Comparison of vocabulary/language acquisition and concepts in the first levels of the Languages Other Than English (LOTE) and the Mathematics documents in the Victorian Curriculum and Standards Frameworks (CSF) show a remarkable similarity. This adequately supports "...designing a language teaching/learning syllabus is to match what is being taught in the form of concepts and structures with the cognitive and linguistic readiness, needs and interests of the students." (Rado, 1991). But is it enough to deal in one or two Key Learning Areas (KLAs)?

## *Integrating Curriculum*

Theorists "... argue that skills, values and understandings are best taught and assessed within meaningful, 'connected' contexts." (Murdoch, 1998). If we consider broadening the KLAs such as Mathematics, Studies of Society & Environment, Arts, Science, Technology, Health and Physical Education we use to deliver curriculum, we need to ensure that outcomes can be achieved through the delivery of a 'big picture idea' topic, rich in concepts which will provide many opportunities for 'life experiences.'

Designing curriculum in this way can provide opportunities for students to see or identify 'big picture' ideas in an overcrowded curriculum by transferring knowledge across curriculum areas. Students can then achieve outcomes in meaningful contexts and reflect between their learning and aspects of the real world. Different learning styles and divergent thinking can be catered for whilst encouraging students to control their own learning through group or independent activities and tasks. But, one asks, is this curriculum design really conducive to L2 learning?

## *Planning to Integrate*

Student learning acquired through integrating curriculum can also be enhanced by structuring learning experiences into a framework. By including the learning objectives of Bloom's Taxonomy into this framework both teachers and students become more aware and develop better understandings of the cognitive level and effort required to achieve specific tasks. The framework or matrix then can include

*\*This article was adapted from one originally published in 1998 in Languages Victoria, the journal of the Modern Language Teachers' Association of Victoria, Volume 2, Number 3.*

Gardner's Multiple Intelligences, which foster an understanding by both teachers and students of their own strengths and weaknesses in different learning styles, promoting metacognition. Integrating Bloom's Taxonomy and Gardner's Multiple Intelligences into the organizational framework of curriculum can then be further supported by second language learning strategies and mnemonic techniques.

An integrated approach requires quite a deal of reflection and research. There are considerations, such as the teaching/learning context, language learning strategies, time immersed in the L2, responsibility for students' acquisition of concepts in the KLA and certainly providing tangible, positive experiences for students.

### ***Bloom's Taxonomy of Learning Objectives***

Many of O'Malley and Chamot's (1990) metacognitive and cognitive strategies such as evaluating a task and summarising information can be addressed using Bloom's Taxonomy of Learning Objectives. Bloom developed six terms to describe levels of cognition. Bloom's Taxonomy may be used to plan tasks on a particular topic to cover a broad range of cognitive levels found within a normal classroom. Below is a table listing each level with a short description, a list of certain processes by which each level may be achieved, and suggested student products.

<b>LEVELS</b>	<b>PROCESSES</b>	<b>PRODUCTS</b>
<b>Knowledge</b> Rote memory, learning facts	List, tell, describe, draw, timeline	Lists, description, fact sheet
<b>Comprehension</b> Understand or interpret information, make use of the idea in a similar situation	Rewrite, summarize, explain, discuss	Essay, diagram, drawing
<b>Application</b> Use ideas, concepts etc. in a new situation	Dramatise, demonstrate, translate, calculate	Models, role plays, map, journal,
<b>Analysis</b> Breaking down the big picture into its components, examining components closely for better understanding	Analyse, examine, compare/contrast, group, survey, classify	Survey, graphs, interviews, book review
<b>Synthesis</b> Bringing together parts to create a whole, original thought or original product	Rearrange, invent, predict, improve, combine, plan	Invention, story, song, play, poem
<b>Evaluation</b> Judge against criteria or develop/apply standards	Judge, evaluate, debate, recommend, prove, criticise	Conclusion, summary, report, jury, review, evaluation form

### ***Multiple Intelligences***

The use of Bloom's Taxonomy in planning can promote the cognitive processes of the student whilst addressing certain learning strategies, but learning styles also need to be considered. Gardner's Theory of Multiple Intelligences used in conjunction with Bloom's Taxonomy can provide for all learning styles. Gardner (summarized in Coil, 1996) identified the following seven main intelligences.

*\*Bloom's Taxonomy of Learning Objectives originally appeared in C. Coil (1996), Tools for Teaching and Learning in the Integrated Classroom and is reprinted here with permission from Hawker Brownlow Education*

### **Language-Related Intelligences:**

- a person with Verbal/Linguistic intelligence can use language to communicate effectively and persuasively, to solve problems, to memorise, entertain and to acquire knowledge, and
- a person with Musical/Rhythmic intelligence can perceive, communicate, understand and express emotion through music (rhythm, pitch or melody).

### **Object-Related Intelligences:**

- a person with Logical/Mathematical intelligence can use numbers with facility; is able to recognise patterns, categories and relationships and explore them in a logical or sequential way, and
- a person with Visual/Spatial intelligence can perceive, create and change visual objects mentally; can navigate or orientate well in an environment.

### **Personal-Related Intelligences:**

- a person with Intrapersonal intelligence knows and understands one's hopes, emotions, strengths and weaknesses; possesses a capacity to self discipline, and
- a person with Interpersonal intelligence can sense feelings, intentions and moods in others, build relationships with ease and is a good team member.

### **Body/Kinesthetic Intelligence:**

- A person with Kinesthetic Intelligence can use mind and body to perform physical tasks showing coordination, speed and flexibility.

### **Technological Intelligence:**

This area is not one of Gardner's intelligences, but I feel should now be considered when planning an integrated curriculum catering for all learners.

- A person with Technological Intelligence can think logically and laterally when using computers and related technologies, can solve problems, and can navigate in an abstract environment.

## ***Putting It All Together***

Once all of the aforementioned areas have been considered, we can design a comprehensive integrated curriculum unit of work using Bloom's Taxonomy and Gardner's Multi-intelligences by combining them into a matrix.

### **Setting Standards**

Prior to designing this kind of matrix care needs to be taken with classroom management and preparing students as independent thinkers/learners when working both in groups and on independent tasks. The use of this matrix can create very exciting content learning and language learning opportunities but standards need to be set before commencing. Students need to be aware of

- required standards of oral and written presentation,
- certain tasks that will be completed as a class activity and will most likely be a teacher-directed lesson (opportunities for teacher assessment),
- the requirement to choose both independent and group tasks and activities,

Figure 2: Integrated Unit Matrix: Minibeasts (Year 3)

	A Word	B Logic & Math	C Space & Vision	D Body	E Music	F People	G Self
1 Knowledge	Make a list of 15 mbs. Illustrate 4 different types.	Like 20 mbs then group them in as many ways possible. Eg habitats, body covering.	Ques. statistics? Select a mb and write down 5 facts about it in French, then read to the class.	In groups of 3-4, rehearse and perform a short story about a mb.	List all the songs that have a mb in them. Rehearse and perform one song.	Help collect cartoons and pictures for a class book featuring a mb.	On the 5 points of a star, write or draw either 2 skin patterns of a mb you like or a mb you would like to be.
2 Comprehension	Make up a word search or a crossword using names of mbs and words to describe their movements.	Why are mice seen to be pets when they look cute and are often in films & books? Write 10 lines.	Draw the life cycle of a mb and label each stage.	In groups of 2, create a sequence of movements to show how 4 mbs move.	With a partner, make an audio tape of different sounds of 6 mbs. Play guess the sounds with 2 friends.	In groups 2-4, create a banner with one clear, strong message about one endangered mb.	On a card board cube, select 6 mbs who share a similar characteristic. Draw & label them.
3 Application	Report on 10 facts, in French about one mb and illustrate your report.	Collect 4/6 draw 15 mbs. Cut out, paste and label into 3 categories eg fur, feathers, + skin.	Make a mb with card board, boxes, string etc. Clearly label body parts in French.	Make a mobile out of clay, plasticine or playdough. Label in French.	In groups of 2-4 think of and vocally make the different sounds of 6 mbs.	Rehearse and prepare your biography for a grade performance.	Write or draw a wild dream about a mb that you would like to own or a mb you would like to see kept in its natural habitat.
4 Analysis	Write a days account in the life of a mb.	Create a survey with 5 questions and record the results of 5 children.	Draw an aerial (bird's eye) view of a mb in its natural habitat.	In a group, mime 4 different ways mbs defend themselves.	Develop a 1 minute performance in a group of 4 by imagining the sights & sounds in a mb environment. Use your voices as instruments.	Find an author who has mbs as characters in their story. Write a 10 line biography about the author, e.g Graeme Base who wrote <i>Animals</i> .	Write/memorise a poem about a mb and perform it.
5 Synthesis	Write a cartoon about a mb in French.	Predict what a zoo for mbs will be like in 2020. Draw, make or write your answer.	Design and make a mb hat or mask and write in French a message about the mb that will attract attention.	In groups of 3, make up a 2 min. dance where you become a different mb when a magician points at you.	Writes, rehearse and perform a rap song about any mb.	In groups of 3, plan & record you ideas for an advertising campaign to encourage people to sponsor a mb.	Make a business card for yourself in French which mentions the area of expertise you have about mbs.
6 Evaluation	Write & present 4 points why dangerous mbs should not be destroyed.	Write 3 reasons why mbs should or shouldn't be put in a zoo for display.	In group of 3, find pictures of famous artworks with mbs and list them in your order of most to least favourite. Report to the grade.	Choose 10 mbs, rank them in order from 1-10 by 1. How graceful they are 2. How easily you can mime their movements and 3. How easily you can mime their shape.	In groups of 2-4, discuss then rank mbs by 1. how quietly to how loud they move 2. how loudly they call out 3. how musically appealing they sound.	In groups of 4, find & record as many ways as possible, a solution to the following problem. Your parents say you cant have a mb as a pet, because you live in a small flat.	On the Web of feeling sheet, write minibeast in the middle; different mbs names in the next ring & words that best describe your feeling about each mb in the outer ring.

KEY:

mbs – minibeast      f – French      ♦ – class task      ■ – individual work      ⊕ – group work      → – performance

- the possibility of longer periods of time for one-to-one interaction with the classroom teacher,
- where to access information and support materials,
- areas designated for different activities, and,
- the need to complete a contract for each task listing the task, materials required, a clear outline of the procedure for the task and an estimate of the time the task will take to complete. This contract is to be negotiated with the teacher before commencing work and is to contain an evaluation of the task upon its completion.

### **Developing a Matrix**

Figure 2 presents a sample integrated unit matrix. This unit of work on Minibeasts was devised for a Grade 2 or 3 level. Students define Minibeast at the beginning of the unit. Often the classification is any beast smaller than a mouse. Certain blocks of time are required for classes to work specifically on the matrix for the Integrated unit, although understanding should also be integrated throughout all other classes such as English and Mathematics. Technology is also integrated and permeates throughout the unit rather than becoming specific tasks. For example students may choose to publish a task such as G3 'Write or draw a wild dream about a Minibeast' and present the completed task as a PowerPoint slide-show with sound and movies filmed in class.

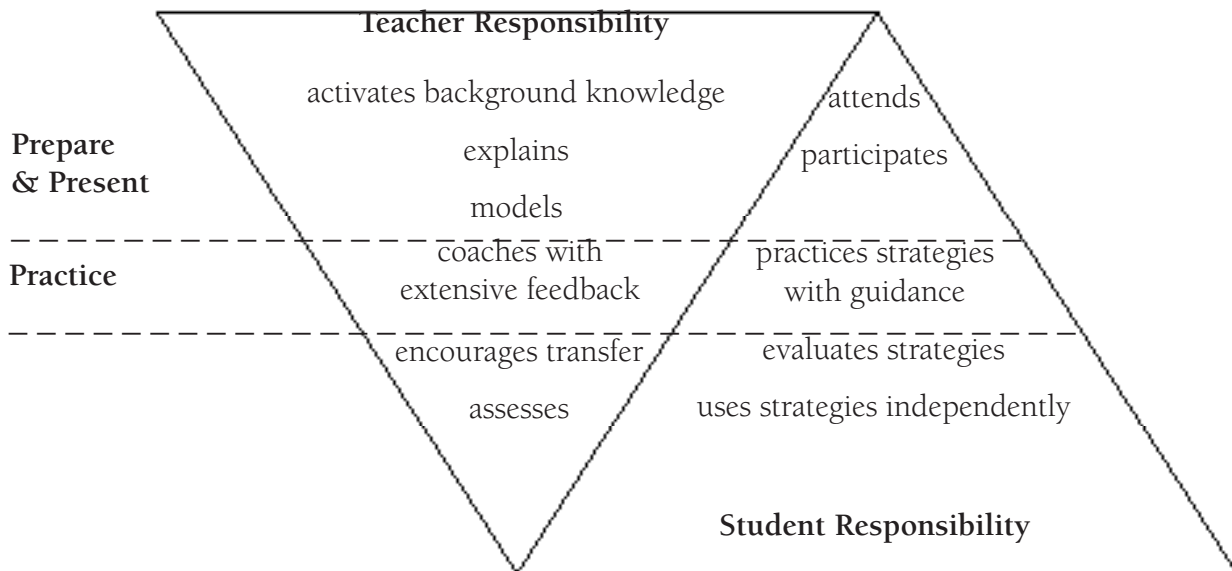
### **Other Considerations**

#### **Language Learning Strategies**

Whilst planning an integrated approach it is important to be mindful of language learning strategies. Learning strategies for L2 acquisition may be divided into three main areas: metacognitive, cognitive and social/affective. These three areas are important and are similar to the three important areas of integrated unit organisation: thinking and reflecting, researching and producing the finished product, and working in groups and interacting within the structure of a classroom. "...metacognitive strategies for planning, monitoring and evaluating a learning task; cognitive strategies for elaboration, grouping, inferencing and summarising the information to be understood and learned; and social/affective strategies for questioning, cooperating, and self-talk to assist in the learning process." (Chamot, et al, 1996). These learning strategies directly affect L2 learning but processes, such as providing opportunities for practice, and production tricks (Ruben, 1981), such as mnemonics, must also be considered. These strategies will be further elaborated when I discuss maximising learning.

#### **Teacher/Student Responsibility**

The focus throughout the unit of work should be on the students understanding themselves as learners. Students should be encouraged to reflect on and to discuss their success and non-success in task completion through their evaluations at the end of the contracts and be encouraged to develop a growing awareness of themselves as learners and what kinds of Intelligences they use best to learn. Student and teacher responsibilities are well explained in the framework for language strategies instruction (see figure 3).



**Figure 3: Framework for Strategies Instruction (Chamot & O'Malley, 1993)**

### Mnemonics

The last of the considerations before planning the integrated unit are mnemonic techniques or memory in language learning (see figure 4). The learning strategies of mnemonics bear a remarkable similarity to Gardner's Intelligences and need to be considered when planning teacher directed lessons, activities or tasks for inclusion on unit matrices as outlined previously.

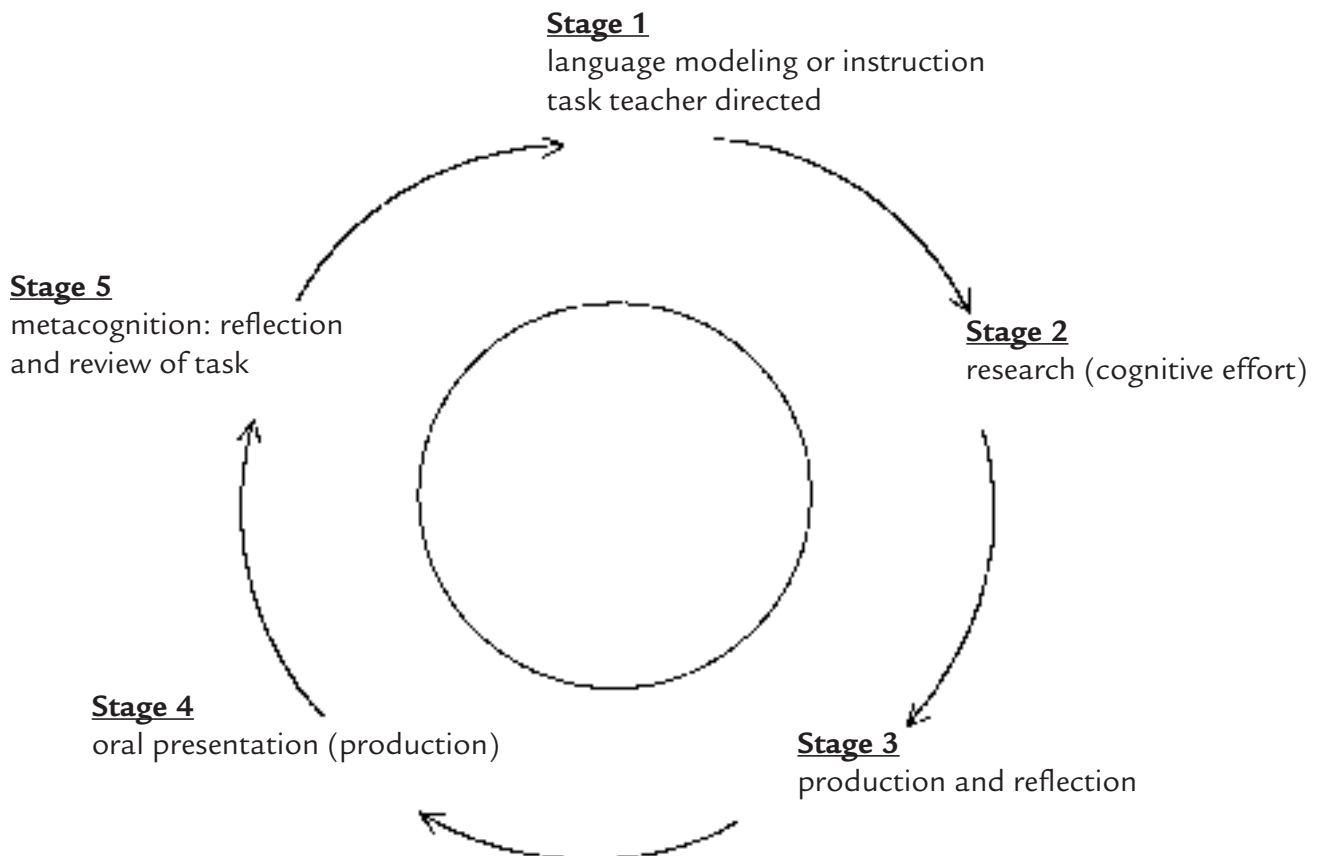
MNEMONIC TECHNIQUES	7 INTELLIGENCES
<b>Linguistic</b> <b>Peg Method:</b> One is a bun <b>Keyword:</b> Ei egg acoustic link with eye	<b>Verbal/Linguistic</b>
<b>Spatial</b> <b>Loc:</b> Location, retrieve vocabulary in rooms <b>Spatial:</b> Arranging words in patterns <b>Fingers:</b> Words associated to certain finger	<b>Visual/Spatial</b>
<b>Visual</b> <b>Pictures:</b> Pairing pictures with words <b>Visualisation:</b> Word or content visualised	<b>Visual/Spatial</b>
<b>Physical Response</b> Physically enacting information	<b>Body/Kinesthetic</b>
<b>Verbal Elaboration</b> <b>Grouping:</b> Organising data <b>The Word Chain:</b> Words following on rather than a peg method. <b>Narrative Chain:</b> Linking words with a story	<b>Verbal/Linguistic</b>
<b>Other</b> <b>Self Testing:</b> Practising retrieval <b>Spaced Practice:</b> Short, spaced retrievals <b>Real-Life Practice:</b> Participation in real-life communicative situations. Best at all levels of proficiency ensuring better links between encoding and retrieval.	<b>Intrapersonal/Interpersonal</b>

**Figure 4: Mnemonic techniques compared with Gardner's Intelligences**

## Maximising Learning

Maximising language acquisition parallel to learning of content (see figure 5) can be enhanced by focusing on student presentation by:

- presenting independent learning to peers – opportunities for structured content lessons or structured language lessons or presenting models etc.
- presenting and sharing of accumulated knowledge tasks – students gain ownership of content and create an atmosphere of a community of learners. They will improve not only their presentation and language skills but become more involved and more judicious researchers.
- promoting interaction between audience and presenter – language learning occurs when students have the opportunity to negotiate understanding using the L2 (Pica, et al, 1983). By creating a structure whereby students presenting content are questioned on the content and meaning of their presented facts, all students remain engaged and the benefits of language learning then flow both ways.
- having to present content to peers in the early stages of the unit students tend to think in L1 when researching and/or thinking and tend to believe they can present their learning in L2. When students commence their presentations they have a degree of difficulty expressing themselves, usually due to a lack of critical vocabulary, and tend to translate unsuccessfully. My findings are that students address this situation and begin to inquire about critical vocabulary and language structures throughout teacher-directed task introduction discussions (Stage 1), during researching or cognitive effort (Stage 2) and most particularly during researching and production (stage 3) of the presentation. As students become more accomplished at presenting they spend more time researching language between Stage 3 and Stage 4, present more successfully and think through the production of the task in L2 rather than L1.



**Figure 5: Production of Oral Presentation**

## Conclusion

In conclusion, integrating content areas (KLAs) into 'big picture' topics rich in concepts and 'real life' learning situations, coupled with a communicative approach in a partial-immersion context, can give students opportunities to maximise their learning of both language and content. The Bloom/Gardner matrix (Coil, 1996) affords learners the opportunity to take responsibility for their own learning and to know themselves as learners whilst learning/teaching both independently or as part of a group.

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