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**Factors Contributing to Effective Language Laboratory Use  
in New Zealand Tertiary Institutes.**

A thesis presented in partial  
fulfilment of the requirements  
for the degree of Master Of Arts  
in Japanese at Massey University

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## Abstract

This study focuses on how language laboratories in New Zealand tertiary institutes can be used more effectively. The language laboratory is an excellent tool of learning which can be used to aid the development of both listening and speaking skills as well as a range of competency skills.

Clear guidelines for use and management of this complex equipment with focus on full integration with classroom language teaching are not currently available to users of the language laboratory. The issues are:

Our ability to use the language laboratory to its full extent

Our ability to effectively manage the language laboratory

Our ability to keep pace with the changing nature of language teaching

Our awareness of the value of the language laboratory as a learning aid.

The importance of the language laboratory to our teaching programmes

Self-paced student-centred learning versus teacher control

Discussion of the above with particular emphasis on training, preparation of materials, organisation and management, and integration with the classroom, help provide basic guidelines for improved language laboratory use and a basis for future research and debate.

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# Factors Contributing to Effective Language Laboratory Use in New Zealand Tertiary Institutes.

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# Chapter 1 Introduction

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The second language classroom is self-limiting in its aim to guide students towards second language competence. Only a minute ratio of language input is possible in a single-teacher single-textbook classroom compared, for instance, to the ratio of, albeit haphazard, language input in any room in the target-language country. In one room there may be posters, pinned up notices, newspapers, television, visitors, children playing, phone conversations, language 'snippets' entering from the general noise outside and many other 'living' language examples.

The teacher can choose to increase the language ratio in the second language classroom by making use of one of the many learning aids currently available. A universal choice since the 1950's, despite periods of fluctuating popularity, has been the language laboratory.

Until recently the language laboratory has figured prominently in educational institutes but the 1990's sees the world of education on the brink of a 'computer explosion'. Education will be led into the new millennium on a wave of new digital and multimedia technology. Instead of leaving the language laboratory behind, however, we seek to combine it with each new technology and in many institutes it continues to be used in much the same way as it has always been. In this way educators pay tribute to the language laboratory, one of the most powerful learning resources ever developed.

This research questions whether the way educators use the language laboratory technology is worthy of the tribute paid it. The language laboratory is indeed a necessary and highly effective learning technology. As used throughout New Zealand, however, it appears to have little effect on student learning due to widespread ignorance of its function and poor management of the equipment, material input and the users.

From work as a teacher of Japanese on an intensive oral-based course, from daily language laboratory use, from reading and speaking to colleagues as part of normal professional life I

developed a picture of the language laboratory as a problem plagued, unimportant room full of ponderous and tricky equipment tolerated by all but exciting no-one. The problem was how to meld the two pictures so that it could be said with conviction that the language laboratory played a huge part in leading education into the 21st century. As well, a strong personal desire to undertake this type of research came from wishing to use an effective learning aid to increase the ratio of listening and speaking in classes which tended to be skills-balanced-weighted in favour of reading and writing. I wished to overcome frustrations experienced when working in the language laboratory and finally I felt the language laboratory played no defined role in the curriculum and was separated from classroom language learning activity.

The research question is: How effective is language laboratory use in New Zealand tertiary institutes today? The results of the questionnaire will complete a sound research base for the language laboratory-based course restructuring I envisaged. The research results may also require New Zealand teachers to improve the learning situation they already have before accepting further technology into their institutes and making the same mistake of using expensive and advanced equipment to less than maximum effect.

## 1.1 Background of the study

More than 40 years of use and constant refinement has seen the development of four different 'models' of language laboratory

The original *Listen-Respond Laboratory* was little more than a tape-recorder with amplified sound. Headphones were sometimes plugged into the recorder or, alternatively, the room was acoustically treated to keep out external sound.

The next model had activated headphones for each student and was called the *Audio Active Laboratory*. This model was the basis for all forms of language laboratory equipment used today. Students were finally able to hear their own voices and many refinements followed such as:

- the installation of individual booths;
- wiring to allow for communication between the teacher and the students;
- wiring to allow for group discussion;
- the use of different taped materials for different groups within one class;
- the teacher being able to record individual students speaking.

A further model, the *Listen-Respond-Compare Laboratory* or AAC - *Audio Active Comparative*, took advantage of the development of dual track cassette tape-recorders to allow for greater student control over the recordings. The students could now record over their own voices without altering the master recording and the tape-recorders could be stopped and started by each individual and from the master console (controlled by the teacher).

The language laboratory 'model of the future' can be seen in various forms today. It is often called a *Multimedia Centre* and, as the name suggests, it has brought together many types of modern technology to improve the basic language laboratory concept. The multimedia centre will have some or all of the following additional features:

- computerization of all controls with remote control of equipment in other rooms;
- telephone dialling between language laboratory users;
- satellite receivers;
- individually monitored interactive video;
- digital coaching;
- media links (Internet etc.);
- student to class screen display.

Because the AAC language laboratory uses the human voice as a medium, it has historically been gifted with human powers of control, organisation, motivation and guidance. The day to day use of the technology has not produced results comparable with those enhanced powers and disappointment and confusion have arisen.

If we look carefully, however, the original three key uses of the language laboratory: listening to a foreign language, speaking a foreign language and comparing foreign language output to our own, are still relevant. The concept of *seeing* ours and others' performance in a foreign language is the next step and interactive video technology is the initial stage of development of a fourth, visual use for the language laboratory.

The language laboratory was a marvellous invention and, as Kitao (1995: 10) pointed out, it was being used successfully as a learning tool as early as 1920. Tutors at the Mississippi State College for Women used the language laboratory

“for verb exercises, pronunciation, phonetics, songs, games, explanations of grammar, conversation, memorization etc. which teachers wanted to do but did not have enough time to do in the classroom”.

Many of the problems that existed in the early days of language laboratory use were machinery-based. The quality of the equipment and the recordings was not high. Background noise on the recordings was distracting. Long pauses didn't allow for much material to be recorded on the records<sup>1</sup>. These problems, of course, were mostly eliminated as sophisticated machinery was developed. Therefore we can assume the language laboratory would have a long history of effective and positive use.

This was not the case. Studies such as the Keating report (1963), the S.W. Lorge report (1963) and the Hans Jalling experiment (1969) failed to *prove* the effectiveness of the language laboratory over any other language learning tool. These studies have largely been discredited but they shattered existing expectations of a 'learning revolution'.

The student participants in the Keating research used a language laboratory once a week for listen-and-repeat exercises. They showed no significant improvement and no difference from the control group who did not use the language laboratory.

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<sup>1</sup>The earliest versions of the language laboratory used recorded discs. This technology was followed by reel-to-reel audio tapes and finally by the audio cassettes we know today.



Similarly, the study carried out in New York City schools proved that one period a week in the language laboratory produces poorer results than no language laboratory at all. In this study neither written nor oral tests showed any difference of significance between the control group and the experimental group using the language laboratory. At the time, following soon after the exaggerated introduction of the language laboratory, these similarly damning studies had a disastrous effect on the existing excitement about the language laboratory invention. In the Keating research the control group did daily practice with a tape-recorder in the classroom using the same material as the experimental group in the language laboratory.

The explanations for the failure of the language laboratory to produce the expected results were that the teacher had not used a language laboratory before and that only one activity took place in the language laboratory each day : straight repetition of a text. Following this activity the whole text was played again and the students listened to it. It was noted that the students showed signs of boredom while listening to this replay of the text.

Neither the control group (using a tape-recorder) or the experimental group (using the language laboratory) showed significantly high aural test results when the equipment was used once a week and neither were reported as producing high results when it was used on a daily basis. It was suggested that focus was on the machine rather than on the learner in this experiment.

Results of the Keating report of the early sixties hold the answers to my research problems today. That is, possessing and using a language laboratory without consideration of a complex map of other factors is a recipe for failure of expectation.

The missing factors in the case of the Keating experiment could have been lack of clear learning outcomes, no varied and interesting activities, no staff and student training, need for increased student responsibility for learning, no consideration of the poor choice of a single sex group for the experiment, no obvious clear knowledge of the scope and limitations of the language laboratory equipment itself.

For many years the language laboratory was linked with the Audio-Lingual method and served well to impart its principles but many users felt it was too controlled, too 'laboratory like' and in the '60s a swing away from Audio-Lingual principles came when they were associated with a narrowly behaviourist view of second language learning<sup>2</sup>. The resulting negative opinion clearly contributed to the cyclical rise and fall of the language laboratory over the years. The complexities of using and maintaining the equipment were also reflected in the literature over the time, and the high burden of preparation and supervision in a laboratory which was designed to lighten the teacher's load became the catch-cry of the critics.

Historical negative influences like these led to the language laboratory not being seen by the majority of users as a very effective learning aid and it is certainly not seen as *exciting*. Few hobbyists can be depended upon to train others by word of mouth.

The greatest area of need therefore is to focus and educate the educators. The issues involved are effective focus and education *with minimal demands on the time, finances, new information assimilating capacity and creativity* of educators. This can be done by providing the initial research and encouraging dialogue and co-operation between institutes. If, having rejected the historical uses of the language laboratory in favour of a fully integrated programme of combined language laboratory and classroom learning, I can convince my fellow educators of the worth of this standpoint, then it must be immediately within their ability to begin a similar programme without the initial years of frustrated experiment. A solid base of research is the only method by which this can be achieved.

## 1.2 Justification for the study

Encouraging an equal skills balance in the language learning classroom is a difficult task. Indeed Morley (1980) introduces the theory that a skills *balance* goes very much against the real language use patterns of around 50% listening, 25% speaking, 15% reading and 10% writing. This

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<sup>2</sup>See for example, the famous critique by Rivers, (1964.: Chapter 13)

issue is an area of concern central to the use of the language laboratory but it is outside the scope of this research.

To develop language skills it is common to use an equal balance of speaking, listening reading and writing tasks. Most students, however are more comfortable with and indeed appear to have greater skill in reading and writing. Many factors contribute to this imbalance:

- The secondary school system, Correspondence school and Extra Mural university courses generally provide a 'passive' learning environment in which, by choice, or because of limitations such as excessive class size, speaking and listening skills become secondary to reading and writing skills.
- Due to staff shortages and the nature of the education system, even courses based on an oral approach to language learning, tend to have *written* examinations.
- New Zealanders reputedly enjoy worldwide high attainment levels in reading and it is a preferred 'information gathering' medium.
- Writing is essentially a private skill. The content is not expected to be shared with others. The teacher or assessor *sees* the content but the script on paper is distanced from the creator of that script. Speaking on the other hand, requires an emotional input. What is said, how it is said and reactions to what is said with subsequent choices for both participants in a conversation, make speaking an uncomfortable choice for many students and teachers.
- Listening to 'undiluted' language which has not been structured to suit the classroom situation also requires students to make choices which can stimulate unfavourable emotions.

- Related personality factors such as shyness and insecurity or experiential factors such as fear of failure and fear of criticism lead to students making 'passive' learning choices much as we try to avoid this occurring in a classroom situation.
- Historically the dynamics of the language classroom in New Zealand are such that most often all the students have been of a similar age group and with the same language background. In these classrooms, writing, a non-interactive activity, is seen as 'concentrating' and the learning outcomes are easily met when students are engaged in this type of activity. Speaking, however, for such groups, is first and foremost a social activity especially as the students are grouped with similar age, similar experience, same language peers, whom they may only meet in the classroom. Speaking practice under these circumstances very often lapses into more *meaningful* communication i.e. communication in the common language about common interests.
- Add to the above the frustration factor of students being able to freely express themselves in language one but hardly at all in language two. This has a marked effect on the quality of classroom oral practice.
- Recent changes in the make-up of New Zealand society are reflected in the student group. English remains the medium of communication but the diverse cultural backgrounds of students influence which skills they will choose in a language learning situation. Many 'new' New Zealanders have completed their early education in the country of their birth. Many Pacific Rim countries have complex written scripts and competitive education systems. In these, writing and reading are the required skill areas.

Over a two year teaching period in a focused oral Japanese course I noticed a huge disparity

between the expected learning outcomes for each lesson and the *real* or *achieved* learning outcomes. The above listed nine influences on my own classroom results forced me to look further afield for a learning aid which could help my students improve their oral proficiency. The language laboratory seemed to be the obvious answer, especially as an aid to skills building in the specific areas of speaking and listening. I did not wish to isolate these skills from the other skill areas therefore I wished to integrate classroom and language laboratory work into a unified whole in which the four skills were balanced and the resulting language fluency reflected this balance. This proposed 'integration between classroom and language laboratory' will not provide a singular answer to improving language laboratory use in New Zealand tertiary institutes. It may, however, spark debate and information/resource sharing between institutes.

### 1.3 Aim of the study

I propose that the language laboratory, in any of its modern forms, is an effective learning tool. There is a need to focus on the particularly New Zealand situation and provide blueprints for successful language laboratory use. In the overall picture of effective language laboratory use tutors must be well-trained and must provide relevant material of interest to individuals. Organisation of the language laboratory must be concise and participatory roles need to be carefully balanced. Activities in the language laboratory should be task-based rather than based on traditional ideas of what is appropriate for language laboratory learning and those activities should be closely linked with classroom studies. Careful attention should be paid to the four language skills: reading, writing, listening and speaking, in combination with competency skills, problem-solving, group work and critical thinking. Necessary competency skills do not need to be limited by these suggestions. A competency skill can be defined as any *active* skill which moves student language use from an academic study focus to a *communication* vehicle focus. As I will discuss in Chapter 2.4, the three competency skills; problem-solving, group work and critical thinking are well-suited to language laboratory activity.

The aim of my research is to answer the question: 'How effective is language laboratory use in new Zealand tertiary institutes today?' , and to draw together historical, pedagogical and practical threads to construct a diagram of factors influencing effectiveness and efficiency in the use of the language laboratory. The factors will be researched under four divisions:

**Training**

**Organisation and Management**

**Preparation**

**Integration with Classroom Work**

The application of this research will be to provide guidelines for the effective and efficient use of language laboratory technology.

The language laboratory discussed in this dissertation is the AAC or Audio Active Comparative language laboratory with any of the refinements or additional multimedia features mentioned. The term used to describe the AAC language laboratory with and without multimedia features will be 'language laboratory'. In the research questionnaire and in quotes throughout, the abbreviations 'LL' or 'language lab' may be used.

The original term for the equipment 'language laboratory' has little relevance after many years of changing methodology and purpose. The language laboratory has been variously called 'Language Learning and Resource Center' (Trometer 1994), 'Language Resource Center' (Koerner 1988), 'Language Learning Center' (Morley 1980), 'Learning Lab' (Gilgen 1994), 'Electronic Language Lab' (Shenouda 1995), 'Multimedia Language Center' (MLC) (Thomeier and Bates 1997), 'Center for Foreign Languages and Cultures' (Davis 1994) . The idea of a break with the old concept of a language *laboratory* where human input was considered unnecessary is commendable. However, as with the original term 'language laboratory', newer labels have also concentrated on the *role* of the equipment and unfortunately none of the new names are as smoothly integrated into speech as 'language laboratory' which can be dubbed 'LL' or 'language lab'. As much as we try to append appropriate new labels such as 'Center for Foreign Languages

and Cultures', the language laboratory remains the 'language lab'. This research merely seeks to improve the effectiveness of language laboratories existing in any form in New Zealand tertiary institutes therefore I will retain the term that students and teachers are already familiar with. If the language laboratory as a learning tool is well-managed and effective, then the name loses any historical negativity and is left with a comfortable, familiar ring.

The term 'learning' will be used throughout to refer to the process whereby students actively analyse, memorize and practise a foreign language. The terms 'teacher' and 'educator' will be used to refer to those who facilitate learning.

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## Chapter 2 Review of Literature

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The simpler listen-respond language laboratories were fully introduced by 1958. They are a long established technology. A comparative type of equipment used for a 40 year period and still in use as a teaching aid is the tape-recorder. The classroom tape-recorder is not always maintained so well that it performs at 100% of its capacity but those using it know clearly what each of its functions is and do not refer to written material or technical support for guidelines on how to use it.

The assumption that language laboratories have been a widely known and accepted teaching aid for a similar period of time could suggest the same conclusion: that all users know clearly how to use them and 'literature' would be limited to the occasional publication suggesting more creative uses for the equipment. This is a dangerous assumption which clearly does exist to some extent in teaching circles.

The difference between these lie (i) in the jump in relative complexity of the technology, and (ii) in the 'rise and fall' in popularity of the language laboratory which has heavily influenced user attitudes and preference for language laboratory use.

Vanderplank (1982) questioned how effectively language laboratories were being used and he carried out research which clearly proved they were not. His article is based on an initial six pertinent questions focused on the very issues which led to this research:

Are we using our LLs better than we did 25-30 years ago, or have they just gathered more dust?

Do we actually know why we are using the LL in any given class session, or is it simply on



the timetable?

Are we using the LL properly - if there is such a thing as a 'proper' use of the LL?

Do we look on our LL sessions as an essential part of language learning, where we can observe the learning process as closely as if we were in a scientific laboratory, or is it just a break from the classroom?

Do we regard the freedom given to the student by the use of the LL as positive, and our inability to control all students from the console as productive?

Lastly, has the LL changed with the changes in language teaching; that is, has the LL become functional and notional and communicative, and given up its structural bride and her well-drilled bridesmaids?

The questions were not answered clearly or cohesively in the article or in the literature of the period and I am forced to ask whether we are using our language laboratories *now* any better than we did 45 years ago. The issues remain apparently:

- (i) Our ability to use the language laboratory to its full extent.
- (ii) Our ability to keep pace with the changing nature of language teaching.
- (iii) Our awareness of the value of the language laboratory as a learning aid.
- (iv) The importance of the language laboratory to our teaching programmes.
- (v) Self-paced, student-centred learning versus teacher control.

The present research may also prove that the ineffective use of language laboratories is universal in New Zealand.

A wide review of past and current literature reveals that answers to the above problems have

been in some way provided but at no time have they been linked to form an overview or a *methodology* of effective language laboratory use. The isolated introduction of single issues and single ideas does little to improve the poor use of complex equipment.

Four key areas could have a major effect on improving the use of the language laboratory: Training, Organisation and Management, Preparation of Materials and Integration with Classroom Work. These are discussed below.

## 2.1 Training

The first area, training, is seen by many as a necessary part of the language laboratory package. Lavine (1992) would like to see teachers given initial training and ongoing support in the use of language laboratory equipment. Lavine suggests all teachers be taught to use more than the basic programme transfer functions and she suggests, wisely, that this knowledge can be gained by 'graded' use of functions. Tasks given to the students early in the programme should use only the basic functions and these should increase in difficulty as the teachers become more familiar and more confident with the equipment.

This is sound advice, but training in the use of the equipment alone cannot possibly remove existing negative perceptions about the language laboratory as she suggests it will. Knowledge of equipment is not a panacea for ignorance of current methodology and its practices. The language laboratory is historically used for grammar drilling which students have found meaningless and difficult, therefore tedious. Commercially produced tapes used today are seen to be modern but the drilling bias remains in most material available even in 1999. These facts will not change just because we, the teachers, are confident using the equipment.

Lavine (1992: 1362) redeems herself by showing that there *are* elements of well-managed,

effective language laboratory use in her institute, and suggests:

“to facilitate the lab sessions, students purchase an inexpensive packet including all necessary information and materials from a nearby copy center.”

The basic elements of sound language laboratory management are touched upon in this article. They are not the main focus of the article, therefore *details* concerning ‘necessary information’ and ‘teacher orientation and support’ are not given. Exactly what materials and information are required for a basic programme of study in which the language laboratory is used as a learning tool? If this type of packet was seen as necessary, then a similar packet would perhaps be required for computer studies classes, or even for the basic teaching programme.

Norrish (1987: 20), a New Zealander lecturing in a New Zealand tertiary situation also saw existing negative perceptions about the language laboratory as strongly influencing its use. She felt that the exaggerated beginnings of the language ‘laboratory’ in the 1950’s dictated the current feeling that the humans using it take on the characteristics of conveyor belt production robots. She rejected these concepts suggesting three factors that can and, in her mind always have, given the language laboratory credibility:

“The concept of laboratory teaching was valid provided that the material put into them was relevant and rewarding and that the teachers operating them were adequately trained to do so”.

These are obvious and correct choices for breaking down negative feelings about the language laboratory but the article reveals a weakness in the links between the concept and the reality. The students in the experimental course outlined by Norrish were given an explanation of the use of language laboratory equipment and the machines were demonstrated. No written follow-up is mentioned in the article. With constant use the students may come to be able to complete error-free work but I suggest simple, clear written instructions would help to remove any loss of confidence when students couldn’t recall some aspect of the ‘one-off’ explanation. Written instructions in clear view unfortunately add to perceptions that the room is a ‘laboratory’. Written instructions as part of a ‘student information packet’ are indeed necessary but possibly not at hand when needed. I favour brightly coloured leaflet holders with clear ‘Help

Me' guides within easy reach of students and tutors in any language laboratory situation.

Norrish has clearly developed and run an effective course based on her three principles of 'relevance, reward and training' but the language laboratory *replaces* the classroom in this experimental course and the required language skills are limited to listening and reading comprehension, thus it does not support my theory that language laboratory and classroom work should be fully integrated to promote the effective coverage of all four language skills as well as competency skills. For Norrish, knowledge of the equipment *and* the type of material used are factors which provided a balance that worked in her experimental classroom.

There is some debate among other language laboratory theorists as to which is more important; the *material* fed into the language laboratory or *knowledge* of the equipment. Eppert (1971) and Vanderplank (1982) are convinced well-prepared material has little value unless the issue of basic expertise in equipment use is addressed. High on Vanderplank's (1982:11) list of 25 conditions for more effective use of the language laboratory is: "All S. (students) 'happy' mechanically."

As suggested by Lavine and Norrish, training in the basic functions of the language laboratory would ensure this condition is met. However, as tertiary institutes in New Zealand cater to a wide variety of students from an even wider variety of cultures and backgrounds, we can never assume that students will gain instant mechanical control over machines after receiving this training in the basic functions.

Vanderplank suggests that student training takes place on two levels. As well as being comfortable mechanically he sees being comfortable 'manipulatively' as a closely linked condition. This is an area more commonly dealt with when discussing materials-preparation and, if we refer to lists written by Schaepe and Barrow (1991) we find this would include such things as:

- making sure instructions are clear and concise;
- including instructions in taped material;
- providing clear learning outcomes;
- providing clear time division;
- informing students of the required style of work (group work, pair work etc.);
- providing adequate feedback and reference material.

A wider definition of training can be put forward if we accept Vanderplank's 'condition' for effective use. A new definition is: Training is the provision of clear information so the participant understands both the equipment to be manipulated and the tasks he/she will be expected to perform. It is essential that the student has practice in making use of that information, and material to aid recall of the information must be available at all times.

With language laboratory use the instructions must be very clear as Schaepe and Barrow suggest because the headphones are a barrier to free communication between students and even to an extent between student and teacher, therefore confusion must be kept at a minimum.

Quality training of students and staff, therefore, is of major importance. Koerner (1988) argues that staff and student training can be avoided if one or two skilled language laboratory directors are appointed and someone is always available to offer help. *Organisation* of the language laboratory is an equally important factor in effective language laboratory use and a well-run language laboratory can, on the surface, look like an enviable operation but teacher confidence in using the equipment and student acceptance and knowledge of the language laboratory as a learning tool will never be high in this situation. As employment of language laboratory directors is a changing variable in terms of quality and length of commitment it cannot replace actual training of each new intake of staff and students.

E. J. John (1997: 298) supports my view asserting that the equipment: "should be simple enough to operate. That is to say, it should not interfere with either the teaching process or the learning process". John, however, writes with debatable experience in the use of the language

laboratory. The equipment is *not simple to operate*. The *equipment* is simple but we require it to carry out complex operations. One example is the cassette release function. This has a very simple push button operation to allow all students *in one group* to open their cassette recorders. If certain students are placed in a second group (again a simple operation) the cassette release does not function for that new group and they must be returned to the original group or changed to a 'free' group in order to put in or take out cassette tapes. This fact is certain to interfere with the teaching process.

John also contradicts his original statement by suggesting that the language laboratory be 'versatile' so teachers can use a variety of methods. Versatility in a language laboratory can only be achieved by using the more complex functions and without sufficient training and practice versatility cannot be achieved.

To summarize, training in both simple and complex language laboratory functions is a base factor which cannot be avoided and, although it is an area which has not been given detailed coverage in current literature, the ideas gathered here suggest that much more than a cursory diagram of the equipment for the students and a one-off explanation for teachers is necessary for successful language laboratory use.

## 2.2 Organisation of the language laboratory

The second key area which may improve language laboratory effectiveness is organisation. The issues which are of concern are:

- (i) The current role of the language laboratory.
- (ii) Day to day management of equipment and materials and co-ordination of students and teachers using the language laboratory.

Literature to date has primarily focused on the history of language laboratory use and the

problems experienced while using it. Some writers have introduced creative methods for using laboratories with many branching off into discussion of listening skills training methods and methods for catering to the needs of individuals. Other writers centering on the IALL (International Association of Learning Laboratories) journal of language learning technologies have looked at the issue of language laboratory directors or personnel who oversee the equipment.

Many of the ideas in this section are single ideas gained from writers whose purpose was not to discuss the way language laboratories are organised. The ideas themselves have merit and must be considered in this research on factors of effective language laboratory use.

### **2.2.1 Role of the language laboratory**

To many, the role of the language laboratory in the learning process is unclear. The equipment was originally designed to fulfil narrow need areas such as: listening to natural pronunciation of set dialogue material and subsequent drilling of a controlled number of grammatical rules. This role of the technology came to be closely linked with one persuasive theory of second language learning, namely the Audio-Lingual method.

Both the language laboratory technology and the Audio-Lingual teaching method have been very long lived. The 40 year space they have both filled in Education can be attributed to the sound principles each concept was based on. Even today there is some relevance in the five Audio-Lingual 'slogans' set out by Rivers (1981:41-43):

- Language is speech, not writing.
- A language is a set of habits.
- Teach the language and not about the language.
- A language is what native speakers say, not what someone thinks they ought to say.
- Languages are different.

Similarly, the principles on which language laboratory use was based are very sound. Amane (1967), as discussed in Kitao (1995) detailed the principles of:

- Individualized work at individual levels of ability.
- More intensive work.
- The development of patterns through repetition.
- The training of the ear.

It is how the principles have been interpreted and the narrowness of that interpretation which has encouraged moves away from both the language laboratory and the Audio-Lingual Method. New language learning theories have been presented and one major teaching method, the Communicative Method, has become widely accepted. This method encourages communication in the new language with an emphasis on real and meaningful situations, i.e. using the new language for the purposes for which students normally use their own language. The Communicative method has helped to change the nature of language learning but a large percentage of educators today were trained at the height of the Audio-Lingual era and have retained Audio-Lingual teaching methods popular for so long in the foreign language classroom. Similarly the language laboratory is firmly seated in the past and is rarely accepted as a 'modern' technology with a wide range of uses in the field of current language education.

Further confusion about the role and the place of the language laboratory has arisen. The well-designed equipment is so imposing and so long lasting that it has not come and gone like the movie projector, the LP record and other technologies. It combines well with technology of the 'computer' age and sits comfortably as one type of equipment in a multimedia centre. Thus the role of the language laboratory has become fragmented. The teaching methods used are not keeping in line with the rapid incorporation of the technology into the world of computerization. Educators have not used the language laboratory equipment to its full potential to date and find it completely overpowering in its new role as part of the multimedia future. I will look at the role of the language laboratory as discussed by writers over a 30 year period from 1960 -1990. The issue has not been well-covered with only eight to ten writers giving thought to the problem in currently available literature.



Gaarder (1960: 43) makes the strong assertion that the language laboratory “must function so as to decrease the teacher’s load.” The language laboratory can effectively decrease the teacher’s performance load which indeed is an enviable role but it can do no more than shift the burden. The teacher’s *attendance* and *paternal* roles are increased when the language laboratory sessions are added to the normal classroom load rather than replacing some of the teaching hours. Preparation of professional quality materials and organisation of the materials, the equipment and the students is more than doubled. Enthusiastic teachers often give up because of the burdensome work load.

I am certain, however, that careful management can keep this workload at the same level as classroom preparation. Management factors, such as: information sharing between similar institutes; effective training aimed at increasing teacher confidence and student satisfaction; published guidelines for production of material, and, as detailed in 2.2.2, experienced technical support, are important even when considering a base role definition for the language laboratory. On the above point alone I cannot dismiss Gaarder’s theories. One of the much touted advantages of the language laboratory when it first became popular was that it could reduce the teacher’s workload by half and most stressed educators needed to believe in this theory.

Indeed, recent work in the area of ‘student responsibility for learning’ by Wenden (1991) gives rise to a vision of fully technology-based instruction self-monitored by well-informed and responsible students learning at maximum efficiency levels. Within this vision the workload of the teacher as educator is minimal and the role of the teacher as manager/facilitator gains credibility.

Writing 37 years ago, Gaarder was, to my knowledge, the first person to discuss whether compulsory attendance in the language laboratory is necessary and whether language laboratory sessions should be integrated with classroom lessons or not. He was also well ahead of his time in suggesting that initial presentation of material can be done in the language laboratory, as can explanation of grammar and constant review of learned work.

Gaarder’s work is concise and thought provoking. It is not outdated but it does fall into the

trap, as mentioned in my introduction, of gifting the language laboratory with human powers. He suggests that many tasks not previously considered suitable for the language laboratory could take place there, leaving the teacher with a lighter load and able to concentrate fully on the one aspect labs are not good at - elicitation of natural student performance in the language. Conversely I can accept the idea that the classroom teacher might *not be good at* elicitation of natural student performance. One non-native speaker in a classroom of 30 students at low intermediate level who have a low level of interest in oral production would suggest poor performance in that area.

If the necessary factors for eliciting natural student performance are: provision of a correct model, requirement of immediate response, provision for student practice, immediate feedback and teacher guidance, then it is possible to do all these things in the teacher-monitored language laboratory, using the equipment to provide increased intensity of practice. The students can be paired with others and given guided correct responses (information-gap exercises and guided conversation cues). The students can record their speech for the teacher to listen to and provide feedback or, alternatively, as suggested by Giauque (1985), they can transcribe what they have recorded and assess it themselves or in a group situation before submitting it to the teacher. As well, a taped model of natural speech is effective with practice in the form of questions, interpreting or translation passages, breakdown into small sections for recall or repetition etc..

Harding and Rogers outline the role of the language laboratory as it was traditionally seen as one in which the students can be grouped, kept working in unison or freed up with ease from the central remote control panel. This role is reminiscent of Norrish's "button pushing morons" and not relevant to the individual learning style of today. The major role of the language laboratory was to take the routine work out of the classroom so teachers could "keep for themselves the interesting aspects of instruction". (1985: 23) This strict division of roles was to blame for much of the downturn in language laboratory use in the '80's and '90's.

The language laboratory *is* well-suited to routine practice work. Students understand the need for routine practice and if the drills are part of a *meaningful* and *interesting* programme *in the language laboratory and the classroom*, then they will happily participate. Both the classroom and the language laboratory programmes must be meaningful for the students using them and they must be integrated so that the students can clearly see their own progression along a single path using a variety of learning tools.

In their discussion of the historical role of the language laboratory Harding and Rogers (1985: 23) reintroduced the rather extreme view: "If one could isolate students in booths... problems of discipline would vanish". Experience suggests that this *is* actually the case. A student *isolated* in a booth will work for the full period of time without giving in to boredom. As the idea of isolating students from others in a learning situation offends many teachers, short periods of time working in groups or pairs with or without headphones in a well-designed language laboratory allows for 'human communication' and does not change the strong advantages of the booths being a disciplinary factor.

There are disadvantages however when students spend much of their learning time working with machines in booths. They do not get to experience a range of changing emotions and reactions. The material is set. The speakers on the cassette tapes do not suddenly shift to a different ideological position, do not hedge and mumble and do not react in any way to what is being said to them, therefore we cannot be sure students are receiving a full and natural range of language experiences.

As well as this, correct cultural behaviour can be taught in the classroom and the language laboratory but as Marriott (1993) suggests, cultural give-and-take rarely reflects 'correct' cultural behaviour when two cultures meet. Either participant may adopt some practices belonging to the other culture and retain some of its own. This is called 'interculture'<sup>3</sup> and it is important that students *experience* the reality of this and compare it with what they have learned in the

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<sup>3</sup>Marriott suggests that, unlike interlanguage, intercultural practices continue to take place even when the target language is reached. Japanese people will adopt practices they are aware belong to the target country but will retain other practices that are particularly Japanese, as will Australians (and in this case we can assume there are few differences between Australians and New Zealanders)

classroom.

In my own experience the 'language exchange' system goes a long way towards providing a remedy for the above two problems. Language exchanges are private meetings set up by students with same age-group native speakers of the target-language to converse in each others' language for a set time each week. All students are encouraged to take part in this type of activity. It increases the students exposure to natural language use and culture. Language exchanges are a new learning tool or resource and some conflict does arise between the young (17-20 yrs old) Japanese students' own world view and view of the Japanese language and the perhaps excessively formal, correct and detailed Japanese taught in New Zealand language courses but the 'youthful' language exchange market is valuable as an interactive learning tool to supplement both classroom and language laboratory work.

The main point made by Harding and Rogers is that we need to look carefully at the development of the language laboratory so that mistakes are not made again in adopting the language laboratory as a vehicle to teach a favoured method without carefully researching the capabilities of the actual machinery. They seem to redefine the role of the language laboratory as one which allows for a wider range of activities and materials suiting current methodology which at the same time addresses problems experienced by language laboratory users in the past.

Vanderplank backs up this idea of checking the disparity between capability claims made by the distributor and current literature and the actual performance of the machinery.

An example of how capability claims are exaggerated in the same way as those for the language laboratory were, is the Internet Home Page for MicNotePad Speech Recording Software for Macintosh Computers. It claims:

"Have you ever tried to change your voice to present a dialog (sic) to a class? With MicNotePad you can play back an actual dialog of two different people, that you have recorded".

This claim, suggesting firstly that the activity itself is quite revolutionary, focuses entirely on

the advantages of playing a dialogue to the students. It does not enlarge upon the simplistic “that you have recorded”. I question where the teacher will find two competent native speakers who are free at the same time and who will voluntarily record that dialogue without requiring too much of the overloaded teacher’s time and who will return to correct any errors or update the information at a moment’s notice.

Vanderplank has made a strong point about capability claims and I hope this dissertation again proves that technology and equipment alone do not make effective learning tools. This argument will hopefully have universal application especially as computerised language laboratory systems become cheaper and more readily available.

Higgins (1969) pinpoints one particular role of the language laboratory by suggesting that the chief function and value of a language laboratory is to increase the amount of activity, actual speaking, that an individual student can perform in a given period of practice. The key point here is the language laboratory functioning as a learning tool to increase the *intensity* of student practice. Higgins limits the activity taking place in the language laboratory to speaking because, along with Gaarder (1960) and others of the period, he saw grammar drilling as the only path to foreign language competence. Higgins, however, differed from his colleagues in his desire to break away from the ‘single group of students’, ‘single programme’ role of the language laboratory. He felt a ‘library’ method or even two to three different tapes at the same time for one class was a major advantage.

Schaepe and Barrow (1991) would like to see the central role of the language laboratory as the place where cultural ideas are presented. They feel the language laboratory is ideal for visual (video and computer) and audio (cassette tape and computer) use. The culture of a country is indeed central to learning a language and use of visual aids can be invaluable in addressing the issue. It is a danger, however, to confine these activities to the language laboratory. Separation of activities from the main teaching programme immediately affords them either a lesser role in the learning process or an exaggerated role due to the ‘special’ nature of the activity. If a group of native speakers, for example, visits a school, the students are likely to be nervous about their own abilities in the target-language and shy because the situation is not a natural one. They may

dread being required to introduce themselves in front of the class and the visiting group. If the same group visits a school where the students have visually (video) explored the target country's marriage customs, have completed a unit of work on marriage, targeting particular language skills and have listened to a sample interview about marriage prospects (in the language laboratory) and role played that interview with their peers, then the situation can be treated naturally and each student can introduce him/herself to one native speaker and 'interview' that person about a meaningful issue using a language area they are already familiar with. This will help them draw on and recombine patterns they have been studying.

The review of literature has led me to consider an updated role definition which takes into account the unchanged basic principles and advantages of the language laboratory. The role of the language laboratory is to enhance and refine, to test and develop language in learners encouraged to communicate by the meaningful materials offered to them and the way those materials are managed. The language laboratory is very effective when fully integrated with a teaching programme and when used in combination with other learning tools. It can significantly increase the intensity of individual practice and the exposure to cultural ideas and natural language patterns.

No role definition, however, is a recipe for successful use. The differences in approaches and type of materials used in the language laboratory need to be planned for and carefully managed.

### **2.2.2 Management of the Language Laboratory**

Skilled language laboratory management is essential for success. Planning involves the teacher and the school's administration. This is Eppert's "partnership between teacher and school's superiors".

Three decades ago Mackey (1965) outlined the three types of necessary supervision of a language laboratory as technical, clerical and professional. Much of the literature concerning the

language laboratory details the job of the language laboratory director and disseminates the roles of director and technician, breaking down the three areas of supervision quoted above into actual job descriptions. Obviously, in many institutes, the technical, clerical and professional roles are blurred. The technician may double as a director. The teaching staff may do the technician's job etc.. Any role division is possible as long as there is a controlling body or individual who is informed about the requirements of language laboratory management.

Literature throughout the 40 year period of language laboratory use appears to be in agreement on the role a language laboratory director should play. Writers as diverse as Morley (1980), Rivers (1981), Gilgen and Browning (1994), and Mackey (1965) have outlined the director's role as:

- to advise and purchase new equipment and materials;
- to schedule classes;
- to supervise language laboratory maintenance;
- to prepare materials;
- to train staff and students;
- to catalogue and store materials;
- to keep staff up to date with current methodology.

Gilgen and Browning advise directors that excellent social skills are very important. There is also the requirement that directors or planners be skilled in managing the language laboratory so it is seen to be a cost-effective investment.

Koerner (1988) details important administrative tasks such as communicating to all staff members that a language laboratory session has been freed up so others can use it. He suggests surveys of actual use should take place and be stored on a data base for better planning of timetables etc.. This could be used as evidence for school superiors that the equipment was a cost-effective purchase.

Without this sort of overall planning, factors for improved language laboratory use such as



the opening of the language laboratory after-hours (suggested by Harding and Rogers (1985)) can cause extra frustration and problems. Issues such as: who is to supervise the students; how inappropriate behaviour can be stopped; how students can be motivated to use the after-hours service etc. must be dealt with in an efficient manner *before* the laboratories are opened to the students.

The employment and subsequent role division of language laboratory directors, technicians and other support staff is a choice to be made by each institute and the existing relationship between the teacher and the school superiors is obviously of paramount importance to this issue.

Any policy for language laboratory use must include the development of a preferred atmosphere. Morley (1980: 26) would like to see the language laboratory with a "comfortable humanistic atmosphere". This would seem sensible considering the images created by past users of the language laboratory as cold places for scientific experiment. She does not give details of how this can be achieved while keeping the fairly imposing and often very dated equipment intact. Rivers (1981), however, suggests the surrounds should be made comfortable with armchairs and colourful paint work.

modern language laboratory equipment takes relaxed design concepts into consideration but care must be taken not to remove aspects of good language learning tools in favour of comfortable seating and the image that the students are not actually in a language laboratory.

Other factors clearly affect language laboratory management. The division of roles in management needs to be clear so that the burden on any group is not excessive. Mackey (1965) suggests many of the teaching staff's tasks could be completed by student assistants or student teachers.



To effectively organise a language laboratory a clear and concise role for such a learning tool must be decided upon. Equally, participatory roles of the school's administrators, the teaching staff and the technician and/or language laboratory director must be chosen and carefully balanced. Day to day management of the language laboratory is high on the list of important factors for effective use. Careful planning by a group brought together specifically for that purpose will cope with and manage issues such as design, planning for use that reflects value for money, keeping up with the times, problems of behaviour and maintenance and others. Above all, information sharing between institutes will make much of the workload unnecessary. The above organisational tools are part of a general preparatory role which must finally focus on the preparation of materials for use in the language laboratory. Vanderplank (1982: 12) says

"The teacher can have little control in any real sense once a LL session has begun. Only the preparation and input are in his/her hands. Then the control and responsibility should be with the student."

## 2.3 Preparation of Materials

General literature available concerning material preparation is unsatisfactory. It is divisive and non-conclusive. Gaarder (1960) suggests professionally made tapes should be used in the language laboratory. Harding and Rogers (1985) et al. feel that professionally made tapes are too expensive and do not suit the particular needs of tailor-made courses. They insist, however, that making one's own tapes takes up far too much teacher time. Details or practical suggestions are not forthcoming in either article.

To date only Rivers (1981) has attempted to produce a cohesive guide for the purchase and use of a language laboratory. She discusses:

- the skills a language laboratory can offer students;
- the different types of language laboratories;
- design ideas;

- considerations for installation;
- advice on training;
- appointment of a director;
- some ideas for use as a learning aid.

The work of Rivers is practical and detailed and is a forerunner to this research. Rivers acknowledges that the language laboratory is not simple equipment and that a complex grouping of factors is necessary for effective use. In the 16 years since the publication of this single chapter by Rivers in a book on general principles of language teaching there is *some* evidence that language laboratories are being managed and maintained well. I feel, however, that Rivers' conclusions and summary have been largely ignored. Her conclusion is as follows:

“materials and the way they are used. These remain the crucial elements in the success or failure of laboratory or classroom. The laboratory can add little to the impact of the classroom if all it does is to repeat endlessly what has already been drilled in class. Variety of drills and variety of activity are the key to continued student intake and perseverance in the LL”. (1981: 441)

In contrast to those authors mentioned previously, Rivers suggests that the teacher should choose from and edit bits from currently available professionally made tapes. This option is an attractive one for the teacher who is working on a topic- or theme-based programme. It may also suit teachers who are not competent at writing their own material and do not have access to native speaker help. However, this method of materials-preparation forces the teacher into a further area where ignorance and fear may prevail. Proficient editing of audio tapes with recorded instructions is time-consuming and requires technical knowledge. A technician with some knowledge of the target-language and some time flexibility could be relied on to complete the job. If this was the case, I feel teachers could, with the help of the same technician, record *all* their own materials and it would be no more time-consuming, provided they had available to them clear guidelines on:

- use of recording equipment;
- effective use of the voice;
- spacing of pauses;
- base plans for making a variety of activities.

The type of literature necessary for this sort of work is not available in New Zealand. JJ Higgins (1969: 104) wrote and published overseas a small book based on an idea which echoes my own feelings.

“There will always be a need when you buy a set of tapes, to rearrange it and to add supplementary material and this demands exactly the same skills as those of the original compilers.”

The book details practical recording advice which, although very outdated, could improve the quality of recordings made by teachers to suit their own classroom situations. Higgins initially explains the science of sound so that amateurs can understand the basic principles. He gives advice on the best type of recording equipment, suggesting for instance, that a machine with separate volume controls for microphone and ‘line’ is necessary if one is going to add music or sound effects to the recording. This will help keep an even sound throughout the recording.

Of greater interest to the teacher, who is recording an audio cassette under the guidance of a qualified technician, are the many hints Higgins gives for better quality recording. His main suggestions are:

- It is best to sit 30 to 40 cm from the microphone to pick up accurate speech tones.
- The microphone should be attached to the ceiling and reach down to the top of the speakers heads as there is less noise above.
- Pages of the script should be placed in individual transparent plastic folders for recording to avoid rustling sounds.
- For recording instructions and drills or conversation, four different voices is an ideal number but no more than four should be introduced.
- For beginners, instructions should be in the target-language and should be kept simple and limited in number. This way students will become used to them and it will add to their vocabulary.
- Speakers should speak with conviction and animation. Sound effects and music (on the end of the tape) also add interest value.
- It is difficult for students to enter the ‘mood’ of new conversations or new material if

they are not visually introduced. Hand out notes on the people in the conversations or whimsical drawings when the students have listening activities to do. This will help them identify with the people on the audio cassette.

Difficulty of access to this outdated and far from comprehensive guide suggests that the information is freely available elsewhere, or conversely, that teachers are not recording their own tapes. Upon further enquiry, however, I found no material at all written with the amateur in mind. Some highly technical detail about recording can be gained from manuals available in the larger public libraries but recording studios do not generally hold any material of this nature.

Nisbett (1989) in *The Use of Microphones* allows for the fact that not all voice recordings are made by professionals and he suggests an initial test be done to see if noises such as air-conditioning hum or movement is obvious when there is a reader with a naturally quiet voice. Nisbett suggests extraneous noise such as closing doors, rustling papers and footsteps etc. should not be ignored and allowed to creep into the recording as they are all sounds which can easily be dealt with. Such simple action as turning up the corners of each page of script which should be written on heavy paper, so that the pages can be lifted without sound and put to one side.

Obvious perhaps to a specialist but not to teaching staff attempting to record tapes for the first time without studio help are Nisbett's (1989: 87) hints on the position of the microphone:

"In a good microphone position for speech the head is held well up and the script a little to one side. The speaker should work to the microphone and not to the script or down towards the table. The script must never be allowed to drift between mouth and microphone."

The above ideas show that recording audio cassettes is a difficult and time-consuming business. Teachers must be given more choice. Professionally made tapes are not widely available even in the late 1990's. Tape sets are often limited to the same dialogues and exercises presented in the textbook. This only allows for repetition of what is being taught in the classroom as Rivers decries.

Current teaching methodology is often ignored and even in textbooks which provide a variety of communicative tasks designed solely for language laboratory use (Tsukuba Language Group 1995:146) we can find meaningless confidence-sapping exercises such as this Japanese grammar drill:

病院に行く → 病院に 行かなければなりません  
行かなきゃなりません  
行かなくてははいけません  
行かなくちゃいけません

The drill gives four sentences for student practice. The first is a verb pattern meaning 'I must'. The second is a colloquial version of the same pattern. The third example is a further verb pattern meaning 'must' mostly used in the third person. The fourth example is a colloquial version of that second verb pattern. Eight short sentences are given to the students and they are required to form the four 'must' examples for each one of the eight sentences. The individual constructions are not easy to form verbally when practised out of context. In this manner, one after another, they become an impossible tongue twister. Japan is a society where social relations are very complex and each of the above examples would appear in entirely separate social situations, never together.

This poor example in a text book and tape series that provides many excellent examples of communicative activities and listening exercises would seem to add support to Rivers' idea of choosing from and editing tapes, but the wide variety of language styles and, more importantly, vocabulary usages and exercise designs found in different language text books may be a barrier to student understanding.

Overlapping this unsatisfactory situation concerning materials-preparation is the rapid development of computer software and the choices available to those teachers who have replaced audio tapes with computer discs. The increased speed of technology development

means these too will be replaced by further development such as universal digital access<sup>4</sup> in the not so distant future. I visited the University of Auckland to view a multimedia language laboratory facility. The facility houses 21 Power Macintosh 6100 AV computers.

Very few commercial software programmes are used in the multimedia lab which caters to 10 language learning groups as well as psychology students. As with commercially produced audio cassettes, the commercial software programmes available do not suit the type of course work being done at the University. As well, there is a lack of good quality commercial software available. The high cost of the software must also be taken into account. This is not a factor that affects audio cassette purchase. The problem is being dealt with in this institute by having a small highly trained, efficient team working with a multilingual language laboratory co-ordinator. Most of the programmes used by the students in all faculties are in-house Hypercard lessons tailored to suit particular courses and produced at a highly professional level using satellite material and real video footage especially commissioned for the lessons.

The professional presentation and efficient organisation of the language laboratories at Auckland University could convince the observer that the original AAC language laboratories are no longer an effective teaching tool and the cassette decks should be replaced in all cases by computers. Before this is done it is necessary to look carefully at how effective the Hypercard lessons are as an aid to language skills development in comparison to lessons using audio cassettes, or, as Rivers (1990: 274) succinctly put it:

"We must learn from the LL. The entry on the scene of the computer and laser disc leads to great expectations and great opportunities. If the expectations are too high to be realized we may miss out on the opportunities , *drifting into a repeat cycle of boom-bust.* (Italics mine)"

The computer programmes are visually superior to audio cassette programmes. They fulfil the role proposed by Schaepe and Barrow (1991) of the language laboratory as a cultural centre of learning (using aural and visual media). The software developed by the University has short clips showing target-language country places and activities accompanied by dialogues for

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<sup>4</sup>A clear explanation of what this might entail can be found in *Being Digital* Negroponte (1995)

listening or dictation. The visual software is perfect for individual practice and therefore more effective than audio cassette combined with video. We must not forget, however, that hundreds of hours of work have gone into the production of these Hypercard lessons which, for copyright reasons cannot be made available to other institutes. A complex range of factors has been at play in the *production of the material*, which again would not be possible without effective *organisation* of the facility itself.

The multimedia equipment itself is superior to audio language laboratory technology because it has a greater range of functions which can be accessed at greater speed. The computer monitor doubles as a video monitor and the audio cassette tape can be played using the computer equipment with instant rewind to a desired section of the tape. Access to other networks such as Internet and live satellite can be set up. These choices are of little use, however without financial and organisational support equal to the desired outcomes.

The major limitation of the Hypercard lessons is that the technology is more suited to 'passive choice' exercises such as: true/false; provide the correct verb ending; fill in the gaps; foreign script recognition etc.. These require a combination of aural and writing skills but do not require any speaking to take place. When repeating or speaking is required the students appear to be discouraged by the visually distracting screen and a minimum of oral interaction takes place. Student participation is automatically recorded when they login and the provision of instant feedback is one of the major advantages of the multimedia lessons. However, as suggested in the introduction, speaking is an activity students do not freely choose to do and in this self-access situation they are able to make the same passive choices they are making in the modern-language classroom.

The technology is changing rapidly and computer technology has features which cannot be ignored if we wish to maximise student learning, but the situation of excessive preparation demands and inability to create fully interactive communication with students perpetuates passive learning. This means we need to make careful choices in language laboratory design which are neither necessarily fully audio nor fully computerised, with a long-term plan for updating and further training when adequate technology becomes available.



In currently available literature there have been fragments of information about how the material on the tapes should be presented and what type of exercise is effective. Eppert (1971) suggests all taped material should be in short segments interspersed with jokes and music. As discussed earlier, Eppert sees the role of the language laboratory as a tool of learning which should be integrated with classroom work, but appears to actually be proposing a *division* of activities rather than an integration by suggesting that jokes and music are necessary to remove the boredom of *language drilling* in the language laboratory. Continued emphasis in Eppert's work on the need to keep the interesting work for the classroom and the boring work for the language laboratory suggests that the teaching methodology he has adopted does not sit well with the concept of integration with classroom work. When the language laboratory work is not confined to grammar drills the content should be of interest to students but even if this is so jokes and music can add a personal touch often missing in the language laboratory where much of the work is completed without teacher-student communication.

Eppert suggests that drills 'demand extreme concentration'. Again this is an example of limited experience with other type of work in the language laboratory. Any type of aural/oral work demands extreme concentration on the part of the, as yet, unskilled learner. The fact that the required concentration takes place in the language laboratory stems from the advantage of one-to-one communication albeit with a recorded tape. Add to this the isolation from others and concentration will increase. In this situation some communication of a humorous or different nature from the normal tape content is necessary. One reservation is that any extraneous material may cause irritation if the student is rewinding and reusing the tape many times. This problem can be avoided by clear division on the tapes between activities and effective use of the tape counters and 'bookmark' functions etc.. If the students have reference to clear instructions outlining what is on the tape, they can move between the activities with greater ease.

Harding and Rogers (1985) put forward ten proposals for the introduction of more effective language laboratory material. Unfortunately these were part of an article covering the history of research projects on the language laboratory and reasons for the downturn in popularity of the language laboratory, therefore the ideas were merely presented without more than token discussion and we can only guess at how these could be adapted to contribute to more effective



language laboratory use. For example, Harding and Rogers suggest teaching the words of popular *English* songs as a listening exercise of high interest value for students. Without further detail it is difficult to see how this can be integrated with classroom work and whether songs in other languages which do not have such world-wide appeal would generate the same interest for complete lessons. I agree, however, that songs and music are invaluable. They are relaxing interludes and confidence-builders when students can hear phrases they understand. Parts of songs can be used to emphasise a point or build on a theme. Basic listening-skills training can be done guessing at the 'mood' of songs (sad, lively, critical) or choosing between pictures of scenes which match certain songs etc..

The theme which stands out in the proposals is that the materials presented to the students should be more interactive, that students should be personally involved in listening. The ideas given to support this concept are excellent although the lack of detail means teachers are forced to experiment with the ideas to isolate pitfalls. The main ideas are outlined in the following section with some input from my own recent experimentation.

**(i) Gathering Information Relevant to a Single Theme.**

A drama or soap opera can be played on video. The students choose one character and create a character profile, tracking mood changes throughout one episode. In my experience, making available a written transcript of the episode helps students to check and refine their listening skills. It also allows for different learning styles. The exercise has no limitations. Students can look for examples of humour and anger. They can detail clothes changes and any surroundings that give hints as to personality type, e.g. bedroom furnishing, accessories etc..

**(ii) "What Happens Next?"**

Harding and Rogers suggest students listen to a "simple but dramatic" story which stops at a particular point. They should then complete the story individually or in

small groups.

This is also effective in ascertaining whether students are learning to give natural responses in conversation. They can listen to part A of a conversation and, in small groups, can make up responses for part B.

**(iii) The Total Physical Response Method.**

Many excellent ideas have surfaced as a result of this method of language teaching in which all language introduced was in the form of instructions to be physically carried out by the students. With precise organisation it is possible to promote greater student involvement by having students walk their figures through maps, draw pictures and move toy figures according to recorded instruction. I have used this method effectively to develop problem-solving skills in a Japanese language course.

Examples of how this can be done are:

Two students have the same map in front of them (preferably a real map of a city known to them). They each listen to a separate monologue giving instructions on getting to the same destination. The students must mark the route on their map and then compare maps and ascertain, in the target-language, where and why the route changed slightly for the second partner.

Two students move plastic figures on a map according to instructions on separate audio tapes. When the exercise is finished they must ascertain, in the target-language, where the two figures crossed paths. This was a particularly effective method in an exercise on the secret ways of the Ninja.

**(iv) Jigsaw Listening**

The use of jigsaw listening exercises is seen as an effective way of relieving the isolation experienced in the language laboratory. Two students each hear separate parts of a piece of information. They must then share what they have heard to

complete the task required of them, e.g. fill out a chart or write a report. I have even taken the name literally and given each student half the pieces of a jigsaw puzzle with spaces left for them to fill in the names of the people in the puzzle. They must then fit the named pieces together according to the instructions about where each person is placed in the final scene.

Other writers have published interactive tasks for use in the language laboratory. Many of the tasks could easily be adapted to suit any learning situation.

Lavine (1992: 1362) gives details of “communicative lab tasks” used in the Spanish course at the University of Maryland. Tasks such as ‘mi familia’ (my family) show how simply and effectively classroom learning can be expanded and improved upon in the language laboratory. The students begin with a homework assignment which most often is a written preparatory task. In this case the students are beginner learners of Spanish. For the ‘mi familia’ task they describe their own or a made up family and record the description on an audio tape. Tapes are then exchanged and each student listens to someone else describe their own family and draws that person’s family tree, then speaks with the partner to check the correctness of the family tree they have constructed.

This type of activity is not limited to this situation alone, nor is it confined to any particular level. As long as the students have adequate preparation (vocabulary and structures) the procedure can be any activity as long as it requires trading and then reconstructing material. Students completing a unit on “Marriage in Japan” could choose from three or four different pictures such as; a nuclear family, an extended family, a family with more than two children or a family with all female children. They record a detailed explanation of that family situation and how it fits in with past or current thinking on the subject. The students then jot down the main points they made and give the tape to some other class member to listen to. The second participant must decide which picture the recorded talk relates to and then must attempt to fully reconstruct the story to the person who recorded the story. This person will be able to provide feed back.

Lavine (1992) also suggests activities such as 'Cartas a Querida Antonia' in which students write letters to a fictional advice column such as 'Dear Abby'. They record what they have written, listen to the tape of a partner and offer advice. There is no suggestion that this works better or worse than the 'mi familia' type of exercise in which the vocabulary and structures are more predictable. I would like to see the results of discussion on whether the students were confident dealing with this topic and whether there was a great variation in the time they took to 'react' to the information and give advice, compared with the more basic tasks described in 'mi familia'.

Preparation of materials is a job which requires imagination and precision. The flow of ideas is greatly helped if the teacher is aware of the role the language laboratory plays in the learning process of the class and if the teacher uses the classroom programme as the base for materials-preparation, allowing for improved integration with existing material.

## 2.4 Integration With Classroom Work

The issue of integrating language laboratory work with the teaching programme has not been dealt with in current literature. Consequently, questions have been asked. Vanderplank, for example, wanted to know how necessary the language laboratory actually is to language learning in the current programmes of the day. Eppert (1970) resists the idea of the language laboratory as the centre of learning because a complex language requires a greater variety of learning methods, not just one. He was also very critical of current language laboratory use (1970: 12):

"Far too often LLs are merely used as an appendage without any attempt to integrate into the whole course."

He sees the language laboratory as a necessary extension of the teaching programme and he outlines various methods to alleviate boredom when using it. I suspect Eppert sees intensive pattern drilling as the only necessary extension of classroom work, whereas the integration I propose allows for similar activities in both learning areas but a slightly different balance of

language and competency skills in each area. I suggest that classroom work be fully and naturally integrated with language laboratory work (or with any other learning tools used in addition to the single teacher). As there is no support for this proposal in current literature I will provide a background to the proposal from personal experience in the classroom and the language laboratory. What is the particular value of the language laboratory when used as an integrated part of the teaching programme? Any clearly defined role for the language laboratory will help to focus this question.

**(i) The language laboratory functions to increase the amount, variety and intensity of target-language material.**

The teaching programme, on the other hand, functions to introduce and provide explanation and practice in a controlled range of structures and vocabulary. The value of the language laboratory, therefore, is to provide the necessary link between natural language behaviour such as that which takes place in the target country, and controlled language learning such as that which takes place in the classroom. The skills which students develop while listening to semi-undiluted language are:

- developing an ear for natural language rhythms;
- listening for information rather than listening to understand;
- hearing learned structures appearing at random rather than together in an expected sequence.

Students can hear and produce material of interest to themselves while hearing and being required to use the specified vocabulary and structures again and again throughout the language laboratory material.

The single teacher facilitating a teaching programme who wishes to increase the variety of materials available to the students is limited to written forms of material. Written material encourages passive style learning and it is difficult for the teacher to encourage the skill of 'reading for information' rather than 'reading for full understanding' as full understanding of

written material will have been the main focus up until that point. The use of the tape-recorder or video in the classroom is often not effective as students learn and understand at different paces and material presented would need to be limited to structures which all students had previously mastered.

**(ii) The language laboratory functions to increase oral practice.**

Effective oral practice in the classroom is dependant on many factors including constructive feedback from the teacher and prolonged concentration on the part of the student. When classes are large the role of the teacher as entertainer, provider of information and consultant is time-consuming. Some areas of the teaching/learning process will be neglected. Often the students who receive feedback and constructive help on their work are those who 'perform' in front of the class. In the language laboratory teachers can monitor skills development and provide feedback to *all* individuals, even the quiet ones, in a controlled environment. Speaking can be recorded for checking at a later date and methods such as Giauque's (1985) can be used so that marking the students tapes becomes a less demanding task. Giauque suggested that students record a speaking task (anything from sentences describing themselves and where they live to discussion on set topics.) The students themselves then listen to their own tapes and transcribe what they have written onto paper provided for the task. Each student then uses a different coloured pen and corrects any errors they are aware they made while speaking. This self-corrected version is handed into the teacher who is saved the time-consuming job of listening to each tape in the language laboratory .

The student in the language laboratory is less easily distracted from the oral tasks. In the classroom the teacher's immediate attention is rarely on any one group for a long time. Because of this the teacher expects students to work without supervision for the most part. This is often an unreasonable expectation as students are in groupings they have chosen themselves of same age, same background friends. In the language laboratory the groupings are the same but the tape and booth provide little distraction from the task at hand. The student may feel more involved and more in control in the language laboratory because he/she is closer to the source of

the material whereas in the classroom there is one video monitor for all and one tape-recorder for all. The balance of language laboratory and classroom use places a perceived value on the language laboratory. If it is used for 1/2 to 2 hours per week it is naturally thought of as an extra or an accessory to learning. Full integration or an improved balance such as one hour language laboratory use on each day that classroom lessons are taking place, communicates to the students that the language laboratory is just another place where the actual programme is taught, e.g. 'A' set of skills is developed in the classroom and 'B' set of skills is developed in the language laboratory. The emphasis in language laboratory lessons can be on listening and speaking. Listening and speaking skills make good use of individual access to taped material. Competency skills such as problem-solving, group work and critical thinking can also be effectively developed. Competencies such as problem-solving and group work add a further dimension to study in the language laboratory.

A one hour language laboratory session for Japanese language learners using task-based activities, concentrates on these skills. It is called 'Rory's Story'. All students hear the first part of a story about Rory (his age, his background and the reasons why he plans to go to Japan). Group A, or half the students in the class then listen to the second part of Rory's story (his initial difficult and disappointing experiences in Japan). At the same time as Group A are listening to Part Two, Group B listens to the third part of Rory's story (his coming to terms with the culture of Japan, how he is befriended by a family and the subsequent improvement in his life there). Students use the bookmark function to mark places which provide the answers to questions on a handout sheet they have been given. They attempt to answer the questions about the part of the story they have listened to e.g. students listening to Part Two answer the questions on Part Two. The students then form groups and, moving to an appropriate practice area within the language laboratory, communicate in Japanese what they heard so that all students can fill in the parts of the sheet they have not had access to information for. If no satisfactory answer has been filled in by the students who listened to the tape, all students in the new group can return and listen to the exact spot which has been marked on the tape using the bookmark function. The exercise is completed and handed in as a group effort which all members have checked. The above exercise encourages skills such as:



- listening for information;
- speaking;
- summarising;
- problem-solving within a group;
- recycling of vocabulary and structures that have been learned and practised in the classroom as part of a topic on overcoming cultural misunderstanding.

It is to be hoped the students will begin to use the language as a vehicle of communication and the language will become secondary to the problem itself.

problem-solving skills can also be developed in the classroom but the medium for such exercises is usually written and many students find it very difficult to read for information. They prefer to read and understand every word. This is a time-consuming process and the second stage of the practice e.g. group problem-solving, summarising and speaking, will be left incomplete because of time restrictions.

Critical thinking can also be developed effectively in the language laboratory. As part of a teaching programme concentrating on culture and how it influences the development of society students listen to a tape dealing with aspects of culture. An example of this is a conversation between Japanese children. They are playing the game 'Mothers' or *ママごと*. The participants are the mother, a big sister and a baby. Students listen to the conversation. In pairs or in groups they discuss in which ways this might be different to something that takes place in their own cultures. At this stage they will come to various conclusions but they will not be required to give their information to others. To help all the students focus their ideas two students (from different cultures) are given a sheet of paper with guided questions e.g. 'What is the same game called in your country?' (The answer is usually 'Mothers and Fathers' or 'Playing House'). 'If three people are playing what roles do they generally take?' (The answer is usually 'Mother, Father and Baby') etc.. The two students tell the class about the game in their own countries using the target-language to describe it.



All students listen to the two students talk and they will quickly come to the same conclusion, if they haven't already before this point, that the father is not a prominent role model in the life of Japanese children as he is mostly absent at work. Students will have differing opinions about what happens in their own countries and there will be the need to discuss this matter cautioning students against forming stereotypes when different patterns obviously occur, but any discussion of that nature will show that critical thinking is taking place in the target-language and that, again, the language use is secondary to the communication taking place.

Group work is effective in both the classroom and the language laboratory. If the language laboratory is set up with special areas where group work can take place easily then group and team work can be a very effective method of changing the activity in a long language laboratory session. It can also serve to focus and summarise material listened to on the tapes.

An example of this type of activity is one called 'Who Will Be Made Redundant?' All students listen to a monologue talking about a particular office situation. This follows a period of time studying the Japanese employment system. The task is to understand as much of the information as they can. After a certain period of time all students form small groups and move to the group work area. At the table they co-operate to construct a jigsaw puzzle which is a scene at the office which the taped information was about. As a group they must name all the people pictured in the jigsaw puzzle and they must individually write down any other information they heard. Each student gets five points for things they heard which are shown in the jigsaw puzzle and one point for extra information not shown in the jigsaw puzzle. Individual students are recognised for high scores and the group with the highest score is also recognised.

Vanderplank (1982:6) asked the questions: "Do we look on our LL sessions as an essential part of language learning, ...". "Do we actually know why we are using the LL in any given class session,...". We can only come to understand the necessity of the language laboratory to language learning if the *role* of the language laboratory is considered in depth first. In all areas of modern technology we must avoid using equipment because it exists or because moves have been made by others to introduce new technological concepts into our teaching area.

Material is introduced above to show how the skills, listening and speaking can be further refined and used to build specific competencies. The ideas introduced are not 'creative' ideas, indeed they are not even new ideas. Any book on teaching ideas such as Lee's 'Language Teaching Games and Contests' (1979) will introduce numerous 'creative' activities which can be adapted to suit any theme in a variety of foreign languages.

Working from specific competencies required by the particular course, will make it easier to create materials because it allows for a wider range of activities to take place in the language laboratory. Creating materials of this nature which are closely linked to the material used in the classroom, is very time-consuming. Often it is of little use to other institutes. The creation of material is a lengthy five step process:

- (i) writing;
- (ii) proofreading;
- (iii) presenting professionally;
- (iv) trialling in the language laboratory and classroom;
- (v) refining;

It is important that schools recognise that technology (in terms of tools of learning) is not time saving. Nor is the equipment itself more important than the material introduced through the new medium. With such 'Models of Use' as the one on page 50, consideration both financial and temporal must be made for the production of materials for use in conjunction with technology.

The language laboratory is a relatively complex type of equipment. As it is inseparable from the personnel who oversee it and the widely differing material used there on a daily basis, there is justification for full research including a review of a wide range of literature on the subject of language laboratory use. In 1982, at the peak of the 'language laboratory debate' Vanderplank asked carefully delineated questions which should have been answered in the literature of that period. This review of literature has proved that they were not.

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## Chapter 3 Methodology

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To the committed language teacher the literature available on language laboratories lacks cohesion and detail. Looked at from the point of view of language teaching in New Zealand today, this is unsatisfactory.

Foreign languages are offered in many of the national tertiary institutes in New Zealand as well as in an increasing number of private institutes. High schools in New Zealand offer two or more foreign languages with many of these supported by the Correspondence School if staffing cannot be sustained. Intermediate and primary schools are also beginning to offer language options. Language learning is a growth area in New Zealand as the country is culturally diverse and conducts much of its business overseas.

In its initial introductory period (1950's) the language laboratory was highly popular and it was assumed equipment sales would grow along with the growth of foreign language learning. A glance at the brochures for Tandberg or Sony, the major distributors of language laboratory equipment in New Zealand, would suggest that this has indeed happened. The language laboratory of today is comfortable, sophisticated and computer operated, keeping pace with changing technology and it is designed with the individual learner in mind, reflecting current teaching methodology. The population of language laboratory users has over time, however, shrunk to a very small proportion of the foreign language learners in New Zealand. In 1998 all seven national universities and 15 of the 25 Polytechnics in New Zealand have functioning language laboratory facilities, most of which are many models before those advertised in the brochures. An extremely small number of high schools and private language schools also have language laboratories, some of which have been purchased second hand from larger institutes.

From this viewpoint of number of existing language laboratories in relation to the

population, it is immediately obvious why locally written material concerning language laboratories is unavailable, and assuming this situation is reflected in other countries, why the material from journal and book publications is never drawn together to provide clear guidelines for language laboratory use.

Why are students in all institutes denied the right to sit in comfortable computer operated, *effective* language laboratories designed carefully to maximise language skills? The answer is financial. The growth trend in language learning is a recent phenomenon. For 30 years numbers have remained static. Now, although growth is taking place, total numbers in one institute are small compared with other disciplines and the enormous cost of purchase, support and maintenance of the language laboratory added to the time and cost of materials-production and management of the same is not viable when use is limited to a single group of students. Most often the equipment being used in the major institutes for language learning throughout New Zealand is very dated and therefore does not attract the interest of corporate sponsors or others who could support the update of the language laboratory.

The current situation does not change the existing perceptions of the language laboratory as an ineffective and uninteresting learning tool which is to be tolerated because it *exists* and is *not easy to remove*.

I have proposed that the language laboratory *is* an effective learning tool. This proposal is supported by writers most of whom introduce single methods for improving the current poor or incorrect use of language laboratories, in addition to researching the history of language laboratory use. Lyman-Hager (1992), however, insists the language laboratory no longer holds any relevance at all and a new pedagogy with supporting technology must be developed. Other than introducing the notion of visual technology and emphasising the importance of an integrated classroom and technology programme, Lyman-Hager requests we, the audience, consider the topic and refrain from attempting to revive the language laboratory.

An earlier writer, John (1980: 295) suggests diversifying language teaching methods, but his personal distaste for language laboratory learning remains with us long after the material has

been read and notes taken.

“If we cannot satisfactorily replace the teacher in the classroom, should we not deny ourselves this luxury (the language laboratory)? But what if we are already saddled with one? That gives the teacher an ideal opportunity to experiment with it as an adjunct to classroom work.”

My initial proposal is a firm one but, as the diverse literature suggests, using the language laboratory is not a simple procedure. The many factors contributing to effective language laboratory use can be drawn together within a basic model outline.(see page 50)

The aim of the survey is, firstly, to discover the extent of language laboratory use in New Zealand tertiary institutes and to ascertain the level of satisfaction with the role of the language laboratory within a sample number of institutes. Secondly, the effectiveness of use in each tertiary institute will be questioned. The findings will be discussed in relation to a model of effective language laboratory use constructed from a review of worldwide literature on the subject.

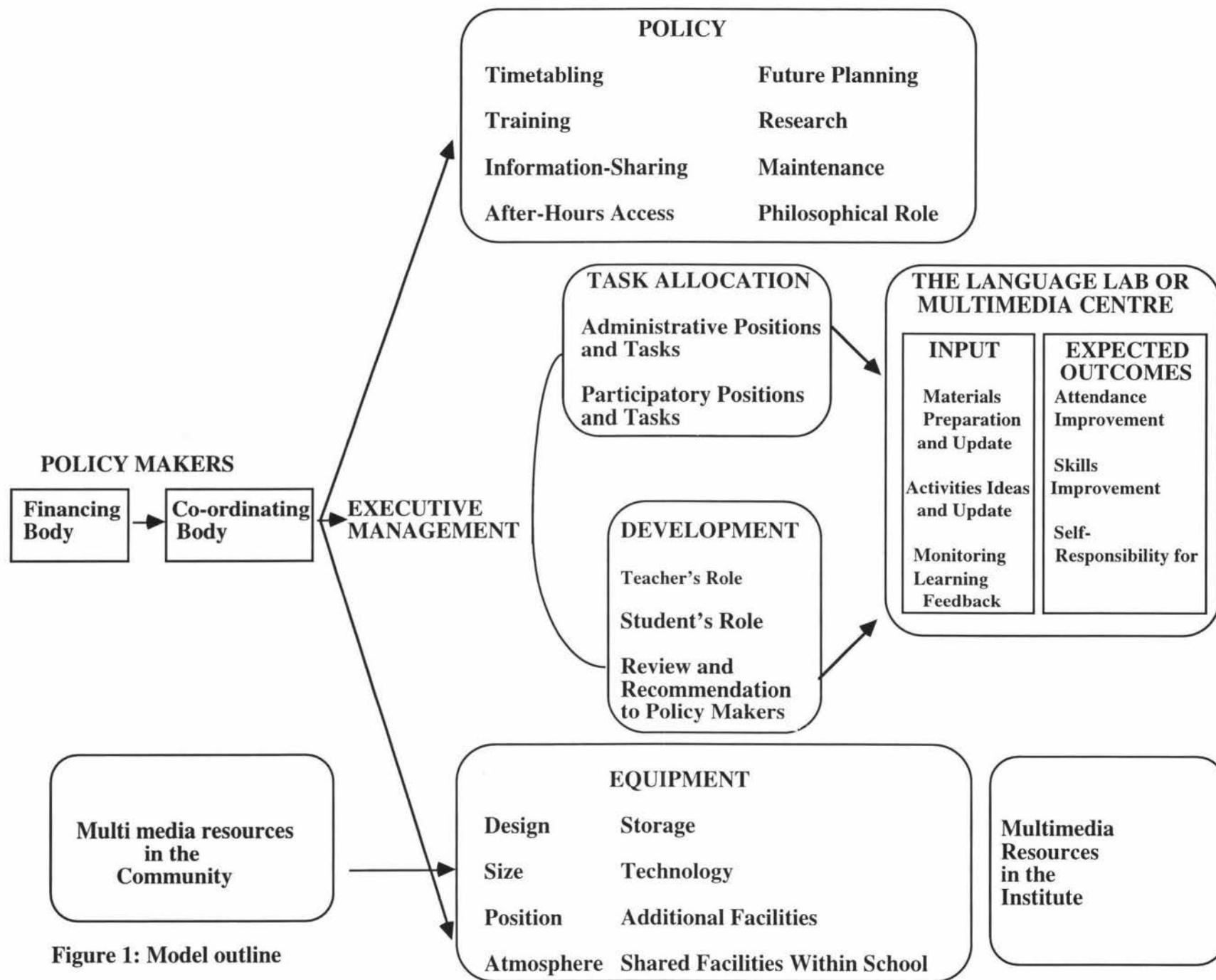


Figure 1: Model outline

The research questions I wish to answer are those raised by Vanderplank in 1982. The original questions are as follows:

Are we using our LLs better than we did 25-30 years ago, or have they just gathered more dust?

Do we actually know why we are using the LL in any given class session, or is it simply on the timetable?

Are we using the LL properly - if there is such a thing as a 'proper' use of the LL?

Do we look on our LL sessions as an essential part of language learning, where we can observe the learning process as closely as if we were in a scientific laboratory, or is it just a break from the classroom?

Do we regard the freedom given to the student by the use of the LL as positive, and our inability to control all students from the console as productive?

Lastly, has the LL changed with the changes in language teaching, that is, has the LL become functional and notional and communicative, and given up its structural bride and her well-drilled bridesmaids?

The issues as stated previously are:

- (i) Our ability to use the language laboratory to its full extent.
- (ii) Our ability to keep pace with the changing nature of language teaching
- (iii) Our awareness of the value of the language laboratory as a learning aid.
- (iv) The importance of the language laboratory to our teaching programmes.
- (v) Self-paced, student-centred learning versus teacher control.

The method I have adopted is to consider the four areas: Training, Preparation of Materials, Organisation and Management, Integration with Teaching Programme. The objective results gained from these research areas will help to answer the more subjective research issues listed above.

Finally the problem is: If the answer to these questions is still 'No', then what must be done New Zealand wide to improve the situation with minimal demands on teachers to turn existing language laboratories into effective learning aids which use the equipment to its full capacity?

To discover the extent of language laboratory use in New Zealand tertiary institutes I sent out a preliminary survey requesting only the number of functioning language laboratories in each institute and the level of use they were perceived to have:

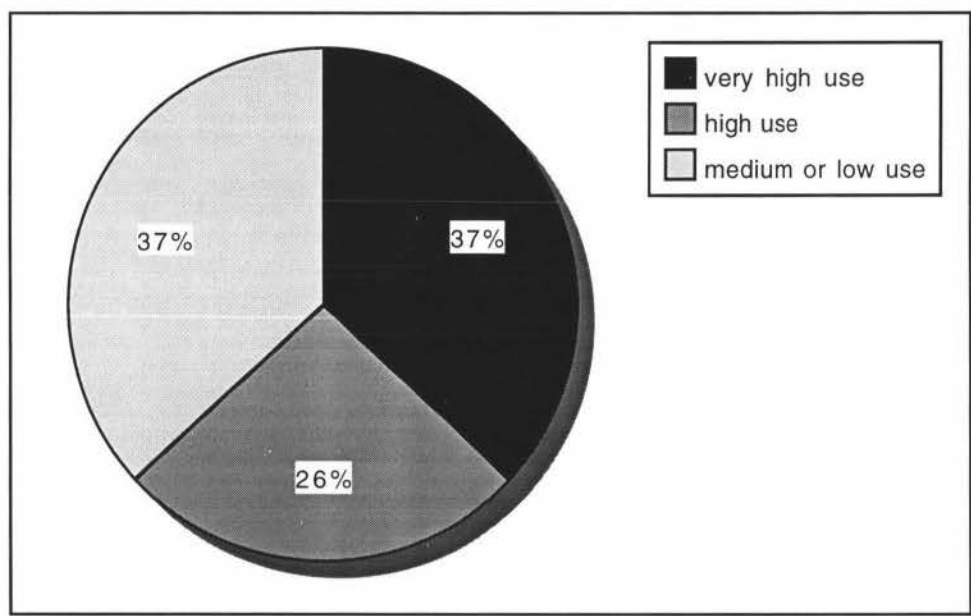
- nil
- low (bookings for two hours or less per day)
- medium (bookings for between two and four hours per day)
- high (bookings for between four and six hours per day)
- very high (fully booked for maximum hours in a week)

All seven universities in New Zealand reported functioning language laboratories although the number of laboratories varied considerably. One institute had nine, one had four and others had two or one. The majority were perceived as having very high use, with one university offering 24 hour access by means of a swipe card system.



The extremely small size of the sample became clear when the 25 polytechnics were contacted. Ten polytechnics had no language laboratory at all and three more used tape-recorder groupings or simple listening posts. Nine polytechnics had one functioning language laboratory although one of those reported nil use and another reported low use (bookings for two hours or less per day). Only *three* polytechnics had two or more functioning language laboratories and of those one reported only medium use ( between two and four hours per day)

Figure 1 shows the number of institutes with 'high' or 'very high' use language laboratories in New Zealand.



**Figure 2: Amount of use of language laboratories**

Twelve out of 32 is a little more than one third of the tertiary institutes in New Zealand. Traditionally polytechnics had a practical base and did not offer language courses and this is still the case in many rural institutes but even if we consider only those tertiary institutes with functioning language laboratories, a mere 12 out of 22 or 51% are using them to near full or full capacity.

Using a language laboratory to full capacity has many variables:

- If the number of language learners is high and the number of language laboratories is low, then the reported use of the equipment will be 'very high'.
- If a language laboratory is managed well it will return value for money and will be used to full capacity.
- Other factors such as student motivation or 'enhanced student motivation' (compulsory attendance or grades for work completed in the language laboratory etc.) play a part in the numbers using a language laboratory in any one institute.

At this stage of the research it was not necessary to differentiate between the variables. It was necessary to ascertain which institutes used the language laboratory as a learning tool, or as part of the process of education rather than as perhaps a once a week 'break' from evening class routine or as an occasional conference aid.

I decided on a random sample of three of the seven universities and seven of the 15 polytechnics with functioning language laboratory facilities. This is an extremely small convenience-based sample with no scientific validity. Initially the sample was to be more than 50% of each type of institute but when contact was made by telephone I discovered that many of those institutes listing 'medium' or 'high' use of language laboratories offered a wide range of language subjects on a part time basis only, making it very difficult to contact the teachers concerned and there appeared to be no more consistency than once a week or once a fortnight use of the equipment.

A pilot questionnaire was completed by one teacher at Auckland Institute of Technology. At the time the language laboratories had no obvious co-ordinating body and both preparation and organisation balance was heavily weighted towards teachers. The frustration experienced in all areas had led to this research taking place therefore it could be assumed that the questionnaire results would paint the expected picture of poorly-functioning and ineffectively used language laboratories.

A Year Two teacher completed the questionnaire. Upon preliminary reading of the results I was satisfied that the required information could be gained from the responses received. I chose to leave the questions as designed with minimal changes to the wording of some questions to clarify what was required. However, in some respects, the results of the single questionnaire actually differed from the *expected* results of the research as the Year Two course was in the process of high-level revision and change as a result of the original decision to find a learning aid in which there was a better balance of real and achieved learning outcomes. I wished to gain a pure result from the preliminary research therefore I gave a copy of the amended questionnaire to a Year One teacher. The Year One course was unaffected by any changes taking place at a higher level. The questionnaire filled out by the Year One teacher was the same as that sent to all other participants in the survey.

At the same time a further 10 questionnaires were sent to New Zealand wide tertiary institutes. For ethical reasons I will not name the universities and polytechnics taking part in the research as evidence of ineffective use of the language laboratory could have a negative effect on enrolment figures.

When the completed questionnaires were returned I felt that the final sample was too small to give a conclusive result. As A.I.T. offers full-time foreign language courses, it is one of the few major language laboratory users in New Zealand and could make a significant contribution to the research results. I have therefore completed an initial discussion of the questionnaire results completed by the Year One teacher *in comparison with* those of the Year Two teacher to gain a clearer understanding of what a true result might be.

At the same time I have included the Year One teacher's questionnaire responses, unchanged in any way, in the final reporting of results as the questionnaire was completed without prior knowledge of the research and change being undertaken at the Year Two level.

The results of the Year One and Year Two questionnaires showed marked differences in the areas of 'material preparation' and 'type of materials used in the language laboratory'. A further quite unexpected set of differences became obvious. There were differences in responses

between the native speaker of English respondent and the non-native speaker respondent. For Question 1: 'In your institute is there any formal training for teaching staff in the use of LL functions?' the native speaker of English ticked 'Yes' whereas the non-native speaker of English ticked 'No'.

For Question 6: 'Is the LL you mainly use in your institute equipped with...' (choices followed), the native speaker of English ticked 'an instruction manual that is not easy to use' whereas the non-native speaker of English ticked 'a user friendly instruction manual'. This could be an individual discrepancy or it could have wider ramifications for the survey which was designed without consideration for the non-native speaker of English.

In the above examples a possible explanation for No 6 is that the non-native speaker respondent has not read or tried to use the instruction manual. For Question 1 it is possible that the non-native speaker does not have the same wide view of the institute due to language difficulties, preferring to concentrate on a smaller area of language input i.e. the lessons being taught.

The questions on Training gave rise to the following results:

- Staff training is not compulsory. When requested by a staff member, training is a one-off oral explanation.
- There is no easy-to-use written reference material in the language laboratory.
- There is no formal training in language laboratory related areas.
- Tutors *know how* to use the basic range of language laboratory and computer functions but are sometimes *uncomfortable* operating them.

The results of the questionnaire differed at this point. Year One *students* are given no formal training but Year Two students are trained in four of the possible six areas considered to have an impact on their use of the language laboratory. Both teachers felt formal training of both staff and students was necessary and both were *dissatisfied* with the training available in the institute.

The results in this section gave a clear picture of ineffective language laboratory use with pointers to important issues such as the need for involvement of groups other than individual teachers (technician, administrators, financial decision-makers). It also clearly showed, quite by chance, that small changes made to certain areas of language laboratory policy or practice do not necessarily change the confidence and satisfaction levels of the teacher.

I felt the question design was adequate for research of this nature in other institutes throughout New Zealand.

The questions on Preparation answered by the two respondents showed no similarities. This was to be expected considering the nature of the changes taking place in the Year Two programme. The Year One teacher used all commercially-made tapes, preparing on average for 30 minutes for each 30 minute language laboratory session. The Year Two teacher used a mixture of commercial and non-commercial tapes and spent a massive three hours preparing for each 60 minute language laboratory session. The teacher's comment was that this was preparation for future years and preparation time would reduce drastically within one to two years.

Predictably the Year One teacher spent more time on classroom lesson preparation and the range of material on the Year One tape was limited to 'instructions for the students' and 'one type of activity per session' (e.g. drills or listening comprehension).

The Year Two taped material contained 'music', 'instructions for the students', 'jokes', 'personal references to students', 'more than one type of activity per session', expected learning outcomes for that particular lesson as well as 'material which does not require the use of headphones' (e.g. information-gap exercises, reading material, discussion prompts).

As for 'activities that take place in the language laboratory', the Year One class did four different types of activity, while the Year Two class did 12 types of activity. Over a year long course this factor alone could influence the level of interest found in the materials offered.

The Year One teacher was satisfied with the materials currently being used in the language laboratory, whereas the Year Two teacher was highly satisfied.

The final question, although a closed question with a range of options as answers, brought exactly the same response from both teachers. All the options were ticked. The Question: 'What factors do you feel are necessary for improved LL material design in your institute?' had the following options to choose from:

- more time for preparation;
- more native speaker help;
- more expert help and advice;
- more guidelines on what can be done in the LL;
- more commercial material available;
- more knowledge of current trends;
- more training in use of various LL functions;
- other (please give details).

The reason for lack of discrimination between the choices was perhaps the tendency for teachers, who had not previously considered this issue before, to have the issue clarified for them through these choices and to realise that there are indeed a wide range of factors contributing to effective language laboratory materials-preparation. I made the decision to leave this question unchanged in the final questionnaire even though it could be considered a 'leading' question. If all questionnaire respondents ticked all the options, then it would be a part of my research output to devise ways for these needs to be met as they are options which do not appear to be within easy reach of teachers.

The questions on Organisation and Management also revealed differences. The area of role division of language laboratory management tasks showed *both* Year One and Year Two teachers dissatisfied. In Year One the technician completed three jobs, the teachers three, the students three and 'no-one' one job. This would seem to be well-balanced compared with the Year Two division of the technician one job, the teachers seven and the students two. The results of other

New Zealand wide questionnaires would give a better indication of the true situation than this as I feel the Year One teacher's dissatisfaction was not with the role division itself, but with the generally poor management and co-ordination of the language laboratory in the particular institute.

Differing patterns of language laboratory management are obvious in Question 6: "Do you or others in your institute use any student LL attendance 'motivators'?" The Year Two teacher who has had the advantage of preliminary research results and information appears to have made considered choices in many more areas than the Year One teacher. The Year Two students have grades awarded for language laboratory work and attendance checks are taken. This is two of the four choices listed. There are no attendance motivators for the Year One students.

The final three questions, titled **Questions on Integration with Teaching Programme** were designed to confront three separate issues:

- How open teachers are to using the language laboratory for a wide range of activities.
- Whether the language laboratory is used for more of the same activities as are used in the classroom or whether it plays a supportive (and thus integrated role?).
- Whether teachers think the language laboratory is a worthwhile teaching aid.

It was difficult to predict whether the responses would actually reveal the desired attitudes towards these issues as the need to keep the questionnaire short and uncomplicated led to a very narrow questioning style. In response to the question : "Which of the following activities are best suited for which place, in your opinion?", the Year One teacher felt six activities were best suited for the classroom, two for the language laboratory and two for either place, whereas the Year Two teacher, with the advantage of increased knowledge of factors of effective language laboratory use, selected two activities best suited for the classroom, four for the language laboratory and four for either place.

A further question reveals the Year One teacher uses the same textbook in the language laboratory as is used in the classroom whereas the Year Two teacher uses different handouts as

well as the same textbook but a different type of exercise.

Finally, but of major importance to the results of this research, both teachers felt that if language laboratory sessions were stopped *it would have a very negative effect on the programme*. This response was necessary to prove that it is not the language laboratory itself which is in any way deficient, nor is it seen to be so in the eyes of the majority of its users.

If my research proves this to be so, at the same time proving generally ineffective use of the facility, then the value of a unified picture of effective language laboratory use must be worthwhile even in the face of mounting evidence that the sample of educators who use the language laboratory is unscientifically small.

Twelve institutes in New Zealand are equipped with functioning language laboratories perceived to have 'high' or 'very high' use by foreign language students. Questionnaires were sent to 10 of those institutes. Seven detailed replies were received. One teacher declined to participate after viewing the questionnaire because of limited familiarity with language laboratories. That person felt unable to do justice to the questions asked. Two questionnaires were not answered even after repeated requests.

In total, seven pieces of data will produce results of little scientific value but the number of respondents is significant to New Zealand because of the very small number of language laboratories per head of population in this country.

If the results suggest that ineffective use of language laboratories has continued for up to 45 years, then the small number of participants can be accepted as yet another example of the decline of language laboratories as a learning aid due to continued ineffective use. In this case the research can be justified.

Participants in the research were informed that their privacy would be respected. Copies of the original completed questionnaires have not been appended to this paper. Individuals at



Auckland University and Auckland Institute of Technology were happy to be identified for the purpose of this research as detailed study of language laboratories and multimedia centres took place in person at these two institutes.

There was an equal number of non-native English speaker and native English speaker participants.

All notes, drafts and originals were destroyed when printing of the research paper was completed.

For ethical considerations the tertiary institutes were not divided into University and Polytechnic in the analysis of results as the very small sample could mean recognition of a particular institute.

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## Chapter 4 Results and Data Analysis

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The research questions are:

Are we using our LLs better than we did 25-30 years ago, or have they just gathered more dust?

Do we actually know why we are using the LL in any given class session, or is it simply on the timetable?

Are we using the LL properly - if there is such a thing as 'proper' use of the LL?

Do we look on our LL sessions as an essential part of language learning, where we can observe the learning process as closely as if we were in a scientific laboratory, or is it just a break from the classroom?

Do we regard the freedom given to the students by the use of the LL as positive, and our inability to control all students from the console as productive?

Lastly, has the LL changed with the changes in language teaching, that is, has the LL become functional and notional and communicative, and given up its structural bride and her well-drilled bridesmaids?

The issues are:

- (i) Our ability to use the language laboratory to its full extent.
- (ii) Our ability to keep pace with the changing nature of language teaching.
- (iii) Our awareness of the value of the language laboratory as a learning aid.
- (iv) The importance of the language laboratory to our teaching programmes.
- (v) Self-paced, student-centred learning versus teacher control.

The first 13 questions on Training will provide a definite answer for issue (i) our ability to use the language laboratory to its full extent and it will answer the functional bias of Vanderplank's "Are we using the LL properly?". The 11 questions on Preparation deal with issues

- (ii) Our ability to keep pace with the changing nature of language teaching.
- (iii) Our awareness of the value of the language laboratory as a learning aid.
- (iv) The importance of the language laboratory to our teaching programmes.
- (v) Self-paced, student-centred learning versus teacher control.

Responses to the questions may show whether we, as New Zealand educators, do consider the language laboratory an essential part of language learning.

The questions on Organisation and Management will provide information useful in dealing with issues (i) - (v) with particular emphasis on (iv) The importance of the language laboratory to our teaching programmes.

This will lead to the final section which goes one step further than the *importance* of the LL to our teaching programme, dealing with how well the LL programme is *integrated* with our teaching programme. The final question in this section, as mentioned previously, is to ascertain whether teachers consider the language laboratory to be an effective learning aid or whether we would be better advised to consider a new pedagogical/technological combination as Lyman-Hager (1992) suggests.

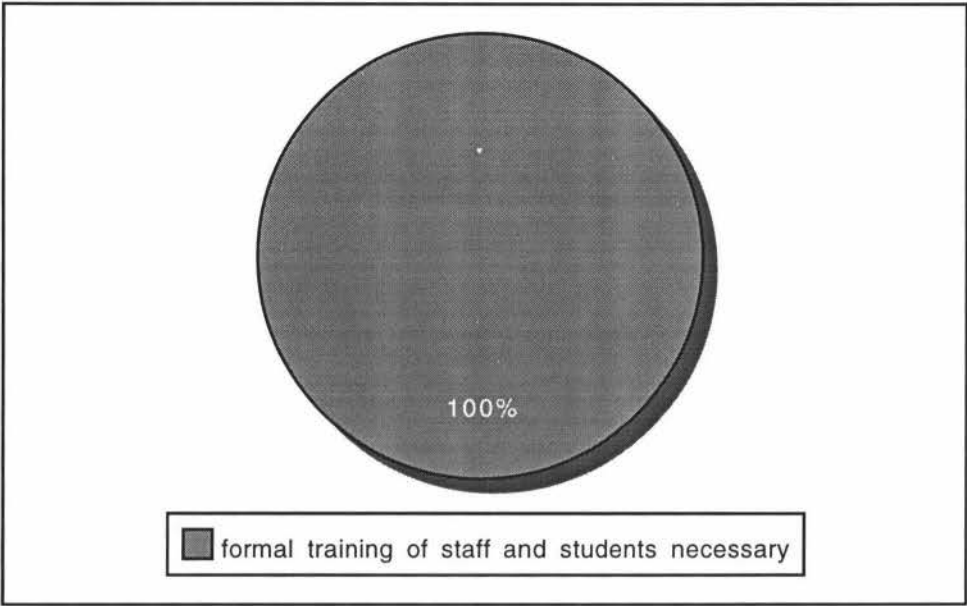
## 4.1 Training

Our ability to use the language laboratory to its full extent is a key issue. New technology surrounds us both in the work place and in the home and we rarely fully master any single piece of equipment. This situation is perhaps acceptable if the desire is to personally use only basic functions of the microwave or video recorder in our homes. The teacher in the language laboratory, however, is a facilitator helping students to make the most of an important learning aid. Therefore the teacher needs more than a cursory knowledge of the functions and he/she needs to be confident with the equipment and other related areas of management and organisation of the language laboratory.

Despite fears to the contrary, the AAC language laboratory has few complicated functions. It *can* be easily mastered and it *must* be fully mastered to be an effective learning tool. Fear of the difficulty of learning how to operate the functions is compounded by:

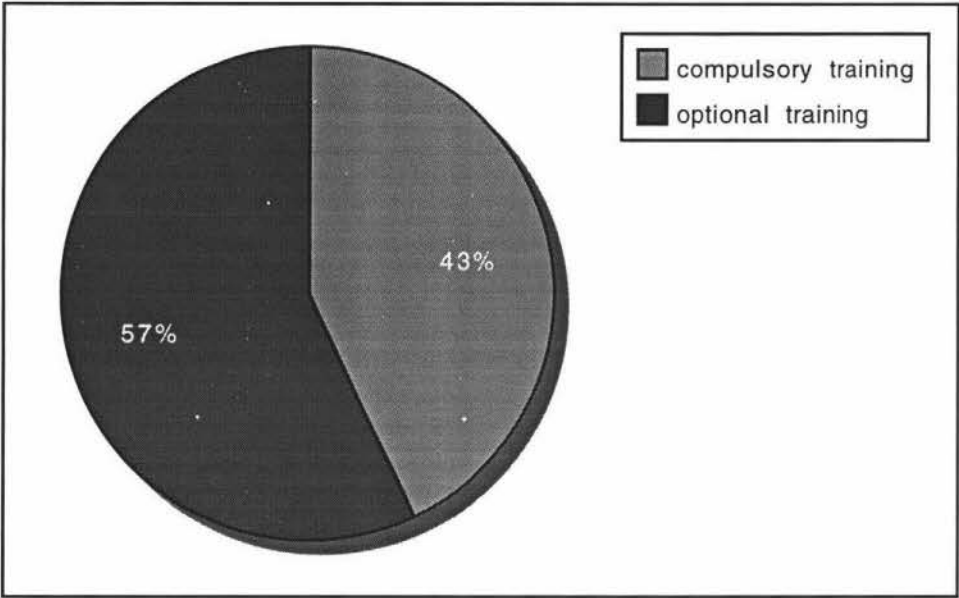
- mechanical failure.
- student ignorance of functions.
- instruction manuals that are unnecessarily complicated.
- the tendency to remain with the 'drill' methodology of the past which requires only a few of the language laboratory functions be used.

We see here how the interplay of many factors contributes to ineffective use of the language laboratory. All respondents said that training was optional.



**Figure 3: Formal training available**

57% of the respondents answered that training was optional but all of them had chosen at some stage to do the training. With this result it would appear that there is no significant difference between ‘compulsory’ and ‘optional’ training. This, however, is a dangerous assumption, particularly when using small sample results. Other factors such as difficulty of access to optional training (technician busy or unapproachable) or time constraints on the teacher, could show up elsewhere.

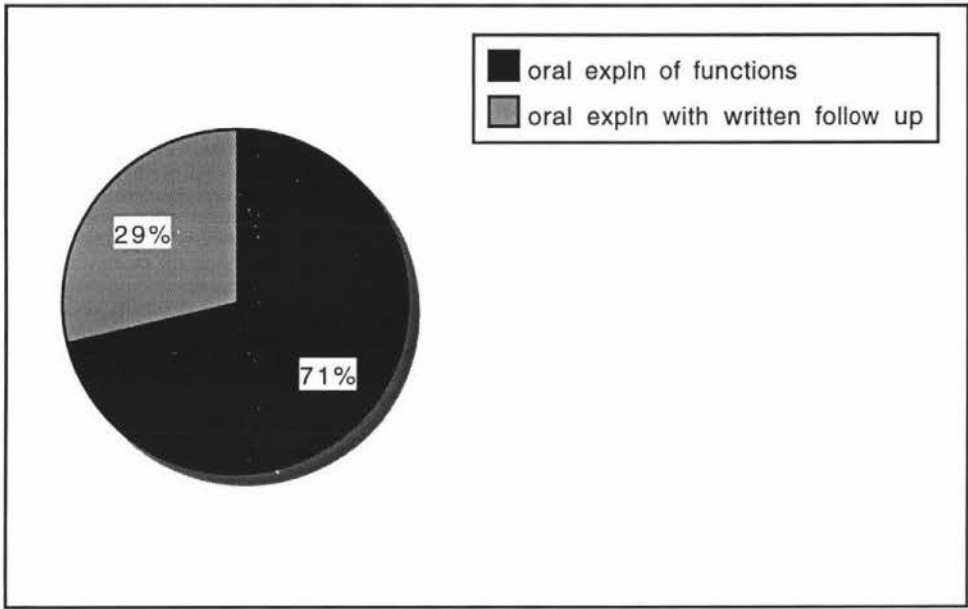


**Figure 4: Type of training**

Fig 5 shows the method of training. Of the four choices:

- oral explanation of functions;
- oral explanation of functions with written follow-up;
- written explanation of functions;
- written explanation of functions with oral follow-up.

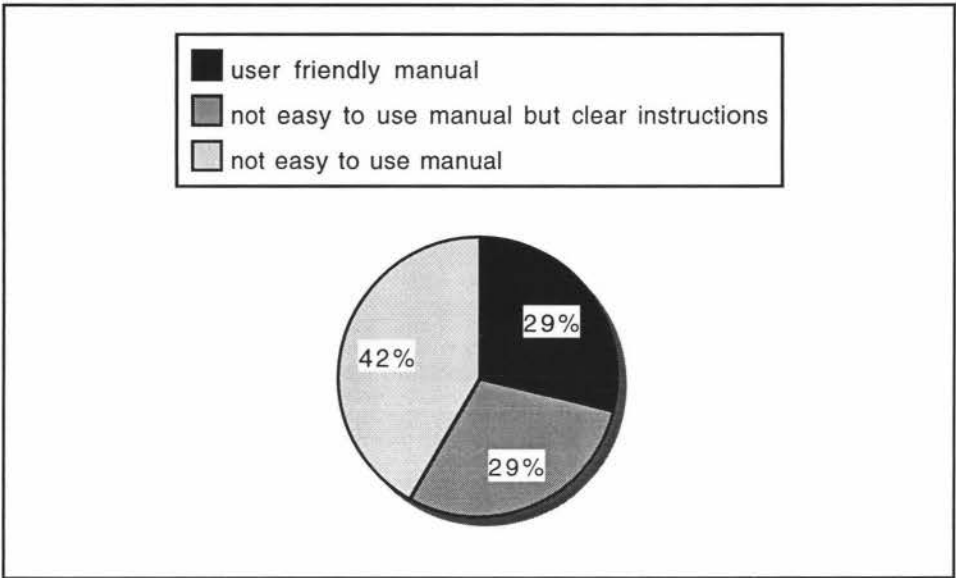
'Oral explanation of functions' was the most frequently occurring method of training with 71% choosing that option. One respondent added that the period of training was 15-20 minutes. A mere 29% of respondents ticked 'oral explanation of functions with written follow-up'. The final two choices 'written explanation of functions' and 'written explanation of functions with oral follow-up' were not part of the response although they are adequate training procedures.



**Figure 5: Method of training**

Clearly linked with the method of training is the form of written instruction. If 71% of the institutes in the sample have only oral training then what form of reference material is available for when teachers wish to begin using a function they have not previously used and are unfamiliar with. Similarly there may be periods of time when they do not use the language laboratory at all or when use of a particular function (e.g. 'testing students in the language laboratory' ) is not appropriate for daily use but the teacher must be fully familiar with it even after a long period of not using it.

Results were as follows:



**Figure 6: Additional training material**

One of the respondents chose the option ‘user friendly instruction manual’ and added a note “friendly enough for someone with basic computer knowledge”. This brings to light a weakness in narrow questioning techniques. ‘User friendly’ to a person with some technical, electrical or computer knowledge is quite different from the same choice for someone without those skills. Training managers have become sensitive to this problem and most of the better textbooks on training bring the problem to the reader’s notice. As Robinson (1981: 87) points out:

“Even when the task is seen to be simple by the trainer or instructor, it can have varying degrees of complexity and ease of assimilation in the minds of the learners. In other words their perceptions of the task, the environment and the trainer will vary, with consequent effects on their rate of learning.”

The fact that 42% of the respondents ticked “a manual that is not easy to use” and none of the other options, points us very clearly to Vanderplank’s question “Are we using the LL properly?” Vanderplank may have been referring to the methodology of language laboratory use here but he did refer in detail to the ‘mechanical’ use of the language laboratory in the main body of his work and proper methodological ‘use’ is impossible without adequate mechanical



knowledge. The section on Training included the question:

“Are the tutors in your institute formally trained in the following LL related areas (you may tick more than one box).”:

- use of video;
- copying of video tapes;
- use of cassette tape demagnetisers;
- use of professional recording equipment;
- use of computers;
- current language teaching methodology;
- editing of audio tapes;
- none of the above.

Inclusion of a question such as this is open to debate. Participants in the research may feel the video and the demagnetiser are simple to operate and self-explanatory, therefore formal training is not necessary. They may also feel that copying of video tapes, use of professional recording equipment and editing of audio tapes are technical jobs to be handled by a technician and are completely outside the area considered to be the teacher's. In addition it may seem pointless receiving training in computers if computers are not used by the staff for teaching related work. Finally there may be the feeling that if the 'need' or 'interest' is there, then teachers will follow up that need and become familiar with these language laboratory related areas.

The choices in the question detailed language laboratory related areas. Teacher confidence in language laboratory use and management of the laboratory requires familiarity with all related areas. As a large number of teachers will use the language laboratory over a period of years it cannot be assumed that each individual will be comfortable with either the simpler equipment or even the concept of the more difficult equipment. For example, knowing how audio tapes can be edited and added to even when the job is done by a qualified technician gives teachers greater scope and greater motivation for change in keeping with changing methodology.

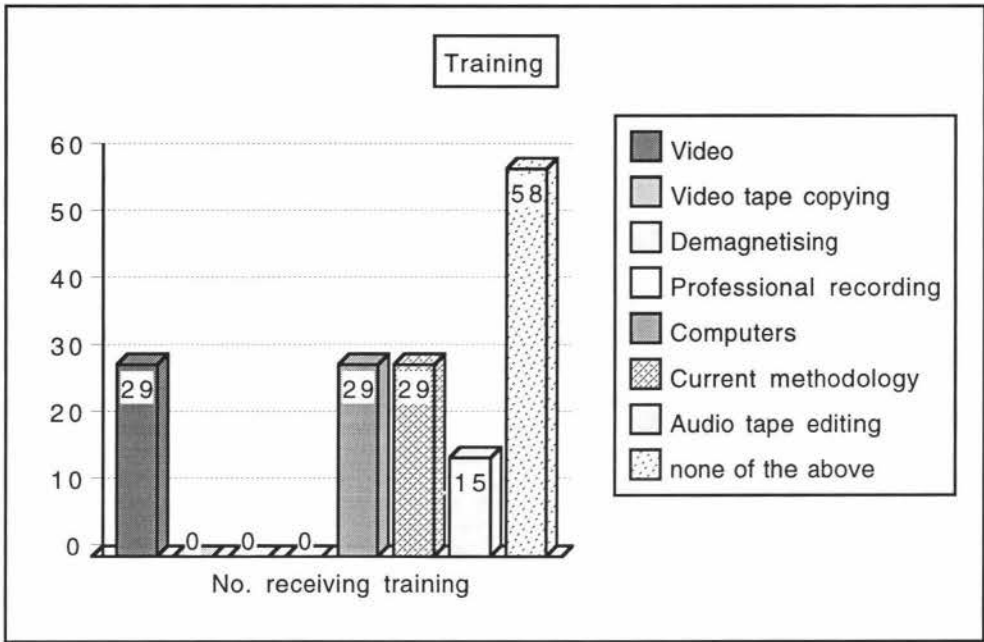


Figure 7: Training received in peripheral equipment

Question 8 requires information on the extent to which teachers perceive themselves able to use the language laboratory and/or computers.

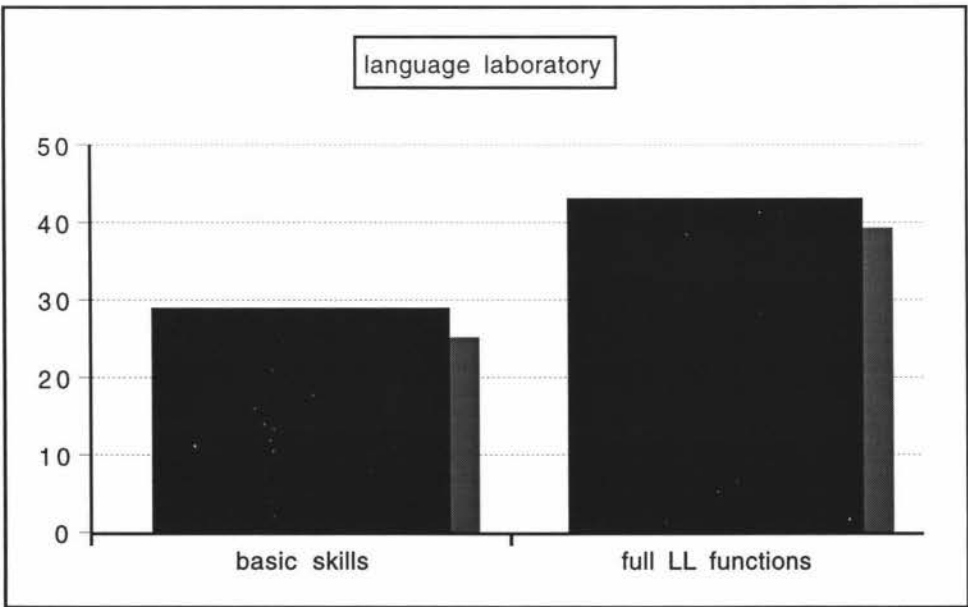
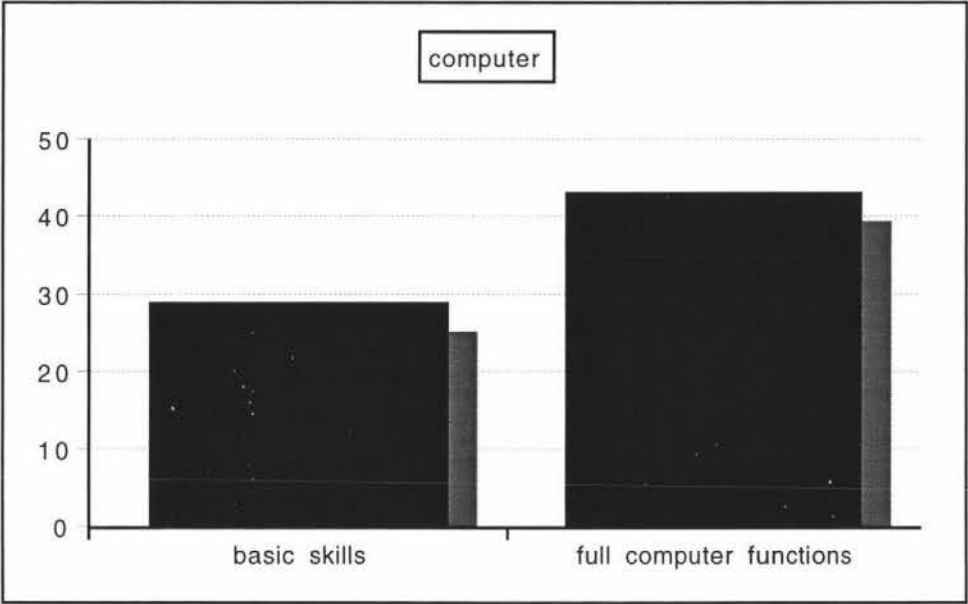


Figure 8: Perceived skills in language laboratory

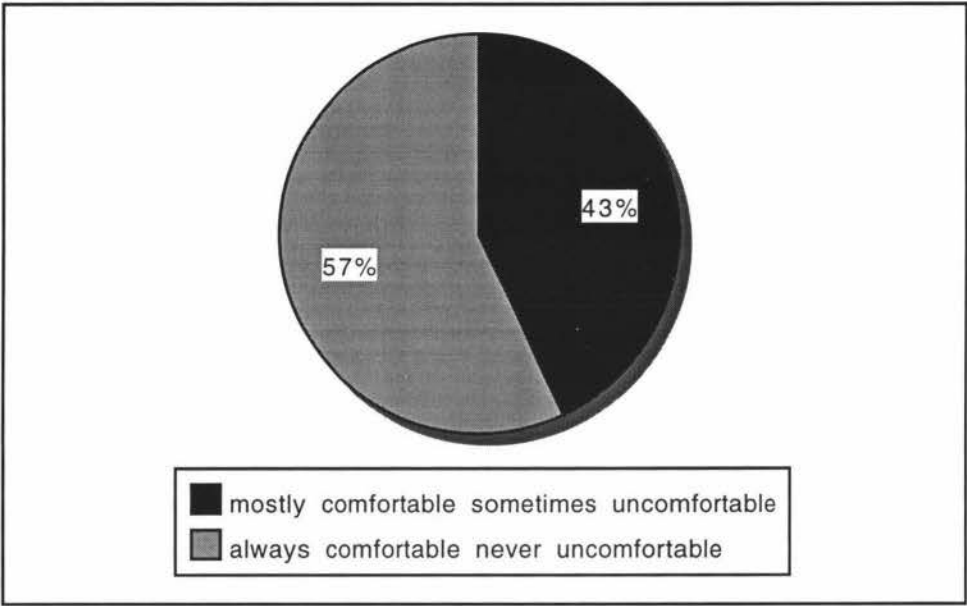
More than one choice was ticked by most respondents as many have both language laboratory and computer skills.



**Figure 9: Perceived skills in computer**

The results differ for each of the institutes but it is significant that only 43% of respondents claim to be able to use the full range of language laboratory functions. The same percentage of respondents can use the full range of computer functions.

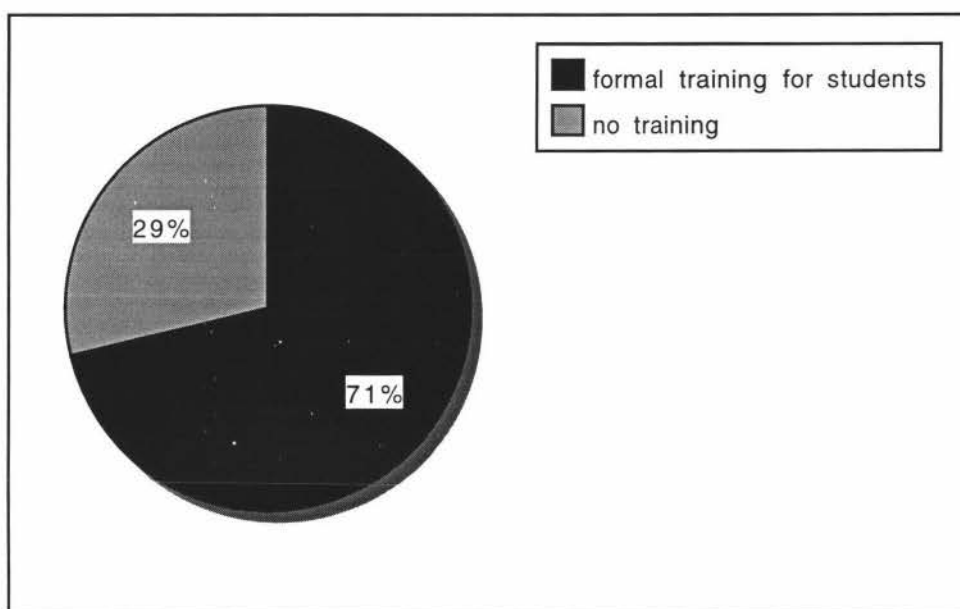
Question 9 deals with how ‘comfortable’ tutors perceive themselves to be when using the language laboratory equipment.



**Figure 10: Comfort levels of teachers**

Again a range of answers was given with over 50% of respondents choosing ‘I am always comfortable, never uncomfortable operating the functions I know’. It is interesting to note that, of the three respondents who see themselves as having ‘full language laboratory ability’ (able to use the full range of functions) *two* chose: “I am mostly comfortable, sometimes uncomfortable using the functions I know.” The reasons for this choice are unclear and assumptions cannot be made but with full knowledge of the concept of audio tape recording or computerised language laboratory systems, full training in use of the equipment, written support available at all times and constant practice or regular periods of skills revision, it is fair to say that perceived comfort levels would match perceived skill levels, i.e. high skill level = high comfort level.

Questions 10 and 11 are on formal training for students. Not all institutes provide training for the students.

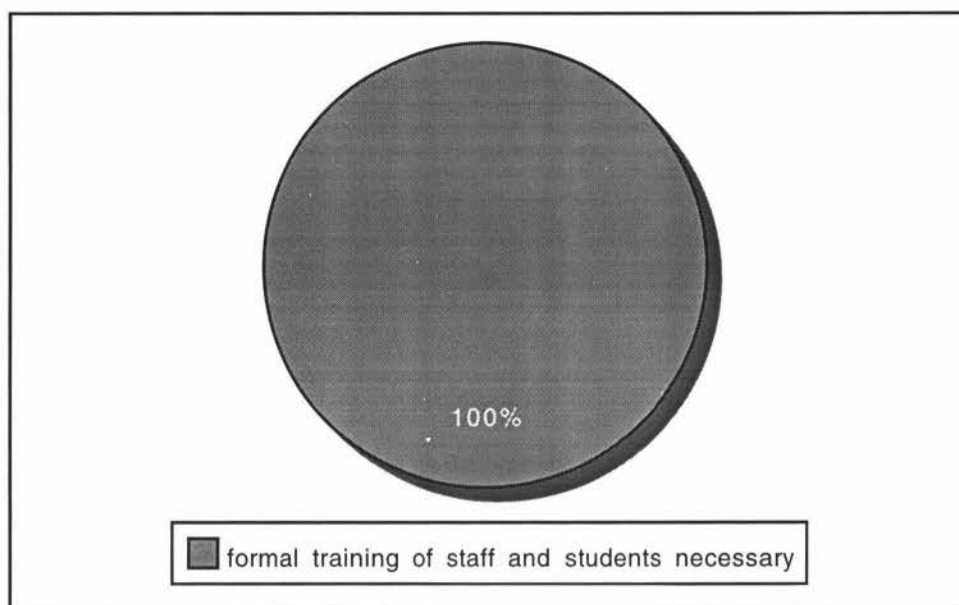


**Figure 11: Training for students**

Of 71% or five institutes, three provide 'explanations and practice in the functions they (the students) will use', one provides 'a diagram and explanation of the functions' and one institute chose five of the six options. Those chosen were:

- explanation of the functions they will use throughout the course;
- explanations and practice in the functions they will use;
- explanations of what the LL is for (what can be achieved by its use);
- explanations of how to achieve maximum result through LL use;
- guidelines for taking responsibility for own learning.

All respondents felt formal training of staff and students is necessary.

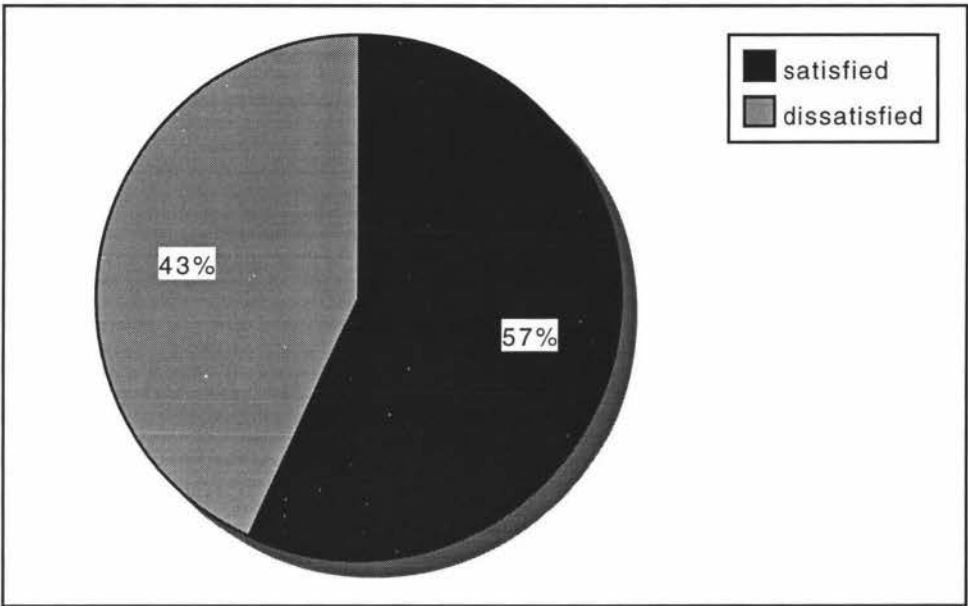


**Figure 12: Necessity of training**

Five of the seven responded to the 'please say why' request. The answers were varied:

- 'It's easier if all students know how to use it.'
- 'It's easy to be neglected then students complain later.'
- 'They can't handle it otherwise.'
- 'To get maximum effectiveness from using it, but depends on the type of LL as well.'
- 'They are frightened of the unknown and panic at the sight of a flashing light.'
- 'With training they can use it comfortably.'

Finally, in answer to the question ‘How do you feel about the staff and student training available in your institute?’, None of the respondents chose ‘highly satisfied’.



**Figure 13: Satisfaction with training availability and methods**

Two respondents added details:

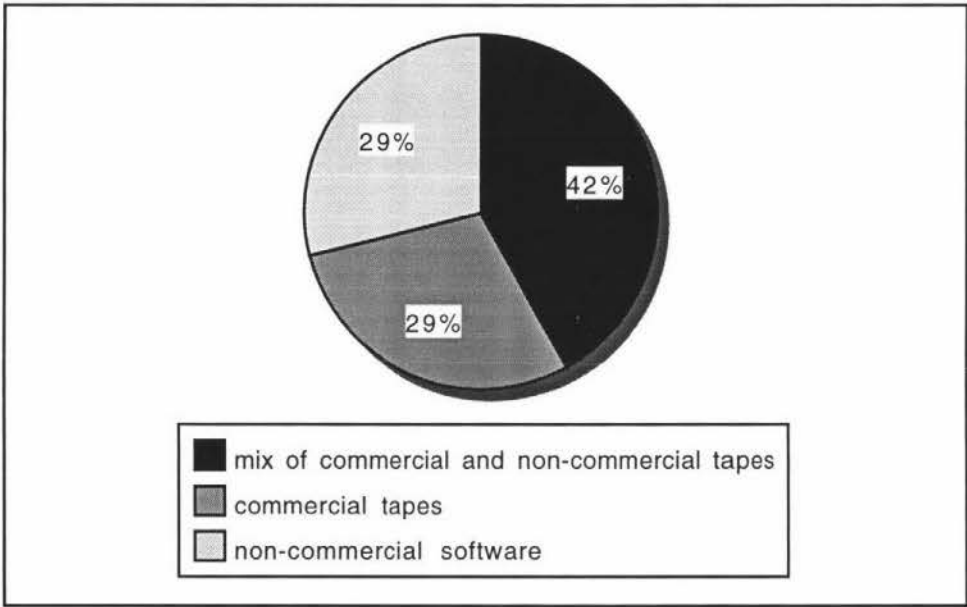
“There is room for ‘workshop’ training where tutors using the lab could come up with different ways - more creative, of using the lab.”

“Not many (staff or students) recognise the usefulness of the LL.”

The section on Training provided information which can be used to discuss the issues of ‘full’ and ‘proper’ use of the language laboratory.

## 4.2 Preparation

The section ‘Part II: Questions on Preparation’ removes the focus from institute-wide to single-teacher programmes. Questions 1 and 2 were for information purposes only; to ascertain the language taught and the level it is taught at. Question 3 is to see which type of materials are used in the language laboratory.



**Figure 14: Type of materials**

One respondent who chose ‘all non-commercial software’ also used a mixture of commercial and non-commercial audio tapes. This information is not recorded in the graph above, but it is recorded in the responses to Question 4 below. A second respondent who chose ‘all commercial audio tapes’ added ‘plus video’ to the ticked option.



Question 4 requests further information from the four respondents who use non-commercial audio tapes.

Of the four respondents 50% used native speaker staff members to record voices on the tapes. Twenty five percent used native speaker staff members and voluntary native speakers from outside, while the final 25% used native speaker staff members and a mixture of voluntary and paid native speakers from outside.

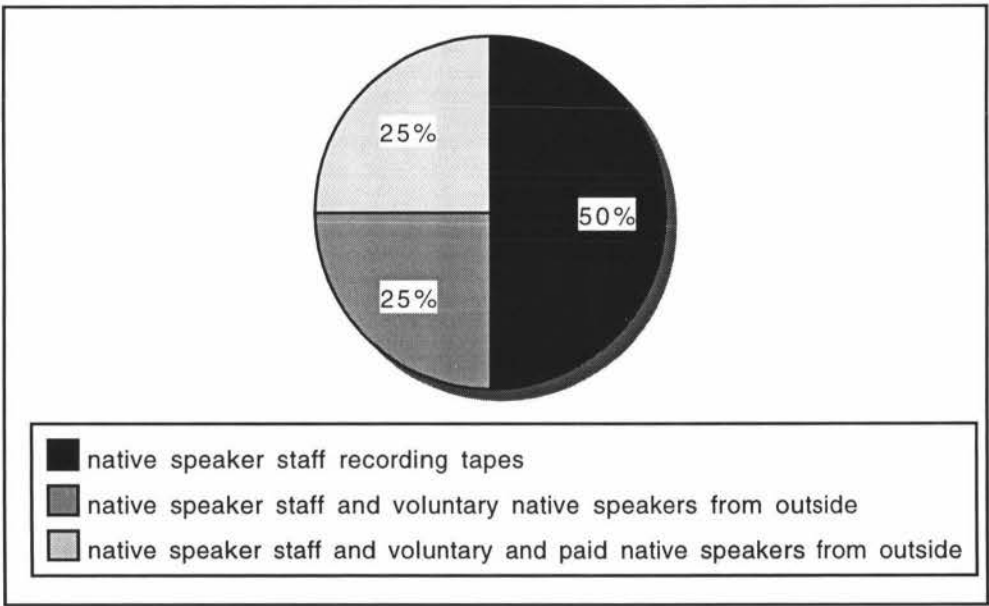


Figure 15: Recording personnel

Question 5, 'How much time on average would you spend preparing for each LL session?'

Institute	LENGTH OF LL SESSION	PREPARATION TIME
A	30 Minutes	30 Minutes
B	50 Minutes	30 - 45 Minutes
C	50 Minutes	60 Minutes
D	50 Minutes	150 Minutes
E	60 Minutes	60 Minutes
F	60 Minutes	60 Minutes
G	90 Minutes	10 Minutes

Figure 16: Language laboratory session preparation time

This result also gives valuable insight into how long is spent in the language laboratory for one session in different institutes and if the answers are honest then it seems a massive amount of preparation is going into language laboratory lessons in all cases.

The institute which answered '10 minutes' appended the following note:

'Preparation for the lessons is being done by the team and the materials are available for all the classes. So mostly there is no preparation time for a LL lesson. To get to this stage many hours have been spent preparing tapes to go with the textbooks and test materials. e.g. 120 hours preparation but this material will be used by students for three hours per week for 18 months.'

When we compare this with the results of Question 6 we find that although 57% of respondents spend more time on classroom materials-preparation than on language laboratory materials-preparation, there is some evidence in Questions 5 and 6 that teachers are taking their language laboratory use seriously and it is not 'just a break from the classroom' as Vanderplank suggests.

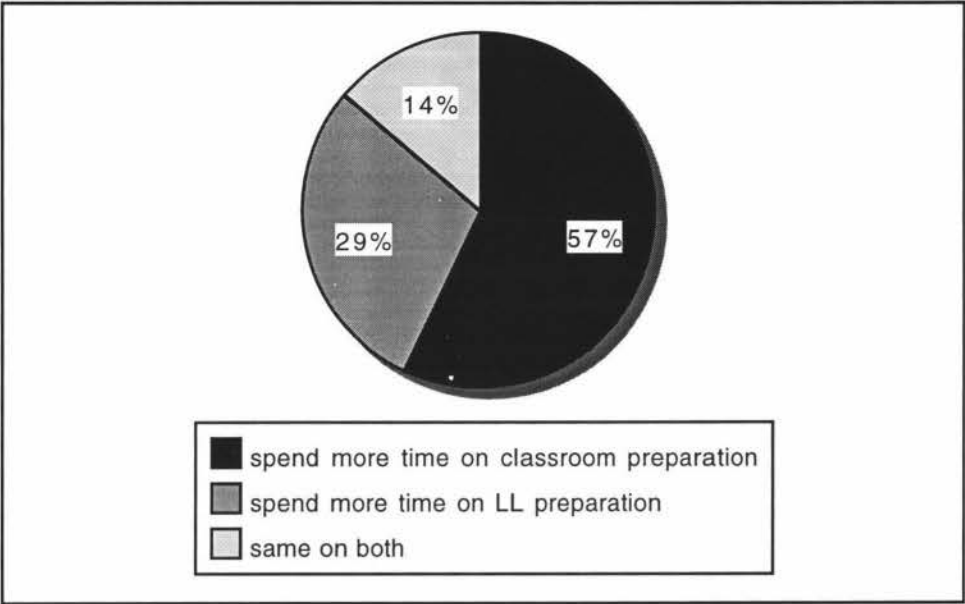


Figure 17: Comparative time spent on preparation

Question 7 looks at methodology in relation to language laboratory use. Six options are given for how material is used in the language laboratory.

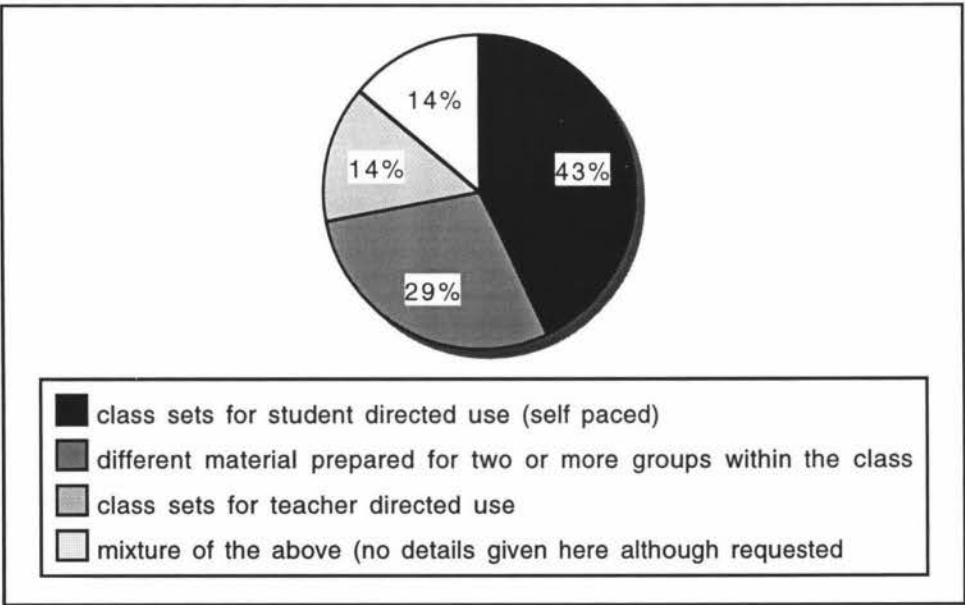


Figure 18: How materials are used in the lab

Question 8 attempts to ascertain what, other than the main activity for the session, is on the audio tapes and/or computer software.

Institute	A	B	C	D	E	F	G
Music	✓	✓					
Jokes		✓					
Songs	✓	✓					
Instructions to students	✓		✓	✓	✓	✓	
Personal references to individuals							
More than one type of activity	✓		✓			✓	✓
Expected learning outcomes	✓		✓			✓	
Material not needing headphones	✓	✓	✓				

Figure 19: Audio tape content

Only two of the institutes surveyed included more than three of the eight choices in their responses.

Question 9 asks for the type of activity taking place in the language laboratory.

Listen/speak drills	✓	✓	✓				✓
Listen/write problem solving	✓	✓		✓			
Listen/repeat exercises	✓	✓	✓	✓			✓
Listen/speak answering questions	✓	✓	✓				✓
Listen/write answering questions		✓		✓	✓	✓	✓
Listen/speak interpreting		✓			✓		
Listen/write information gathering, sorting				✓	✓		
Listen/speak information giving			✓	✓			✓
Listen/discuss group problem solving					✓		
Listen/speak reporting information to others		✓			✓		
Look/write answering qu's about a video							✓
Look/speak discussing culture with video stimulus						✓	✓

Figure 20: Actual activities taking place in the language laboratory

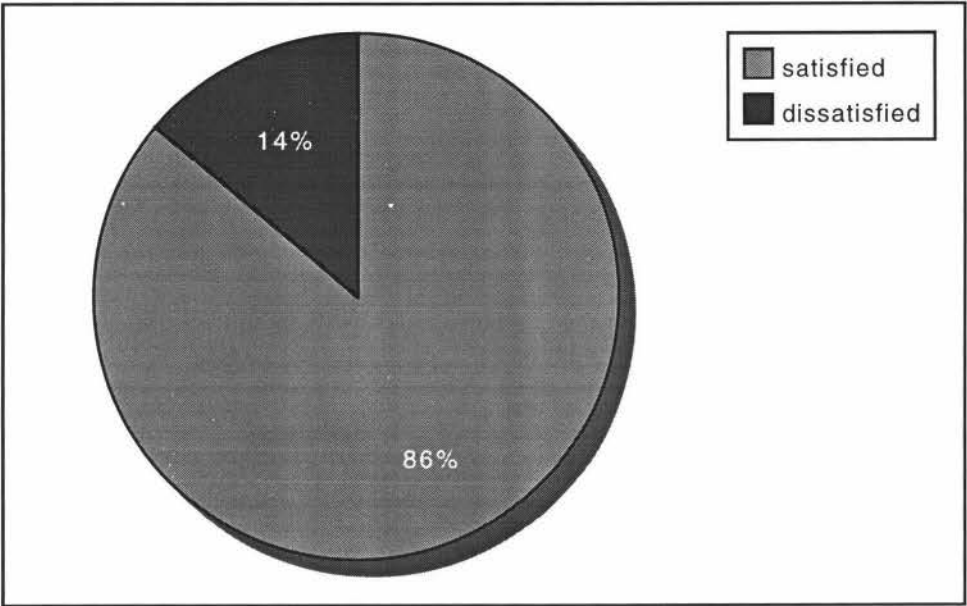
This is also an important result in terms of the ‘number’ of activities which take place in the language laboratory over a period of time. If a teacher is using the language laboratory regularly over a period of one or more years for a single language course, I feel very strongly that only four different types of activity are not enough to maintain student interest and application. The activities in the above table are deliberately ordered with the more traditional type of activity in the upper half. From the information gained it is evident that few institutes are using the language laboratory for communicative type activities.

The competency skills which I have emphasised throughout as having a very important place in the language laboratory are:

- (i) listen/write problem-solving;
- (ii) listen/speak information giving;
- (iii) listen/discuss group problem-solving;
- (iv) listen/speak reporting information to others.

Listen/write problem-solving activities are used by three institutes as is listen/speak information giving while listen/discuss group problem-solving is only used by one institute and listen/speak reporting information to others is used by two institutes. If we consider the number of institutes using each type of activity it is immediately clear that the original Audio-Lingual ‘drill’ methods are being used in the majority of cases. Five institutes use both listen/repeat exercises and listen/write answering questions exercises and four institutes use listen/speak drills.

Question 10, 'How do you feel about the *materials* you are currently using in the LL?'received a similar response to the question of training.



**Figure 21: Teacher satisfaction with materials**

No respondent is 'highly satisfied' with either the training in their institute or the materials being used. 86% of respondents, however, are *satisfied* with the materials being used whereas only 57% of respondents were satisfied with the training available in the institute. General results show a greater commitment by teachers to the area of materials-preparation whereas training is a job they are perhaps not personally involved in.

Question 11 gives a list of possible factors for improved language laboratory material design.

Institute	A	B	C	D	E	F	G
more time for preparation		✓	✓				✓
more native speaker help			✓			✓	✓
more expert help and advice			✓	✓	✓		✓
more guidelines on what can be done in the language lab		✓	✓	✓	✓		✓
more commercial mateial available		✓	✓		✓	✓	✓
more knowledge of current trends		✓	✓	✓	✓		✓
more training in the use of various LL functions				✓	✓		✓
other (please give details)	✓ ↓						
'We are at the stage where we need to develop our own material suited to our own paper.'							

Figure 22: Factors for improved language laboratory material design



This strong response pinpoints need areas felt by most of the respondents. It reflects the lack of literature on the subject of language laboratories and it also suggests that lack of specialised knowledge in all aspects of language laboratory use is a major factor of ineffective language laboratory use in New Zealand tertiary institutes. It clearly shows the gap in levels of use between those who perhaps have developed some methodology of language laboratory use and who need time and native speaker help for preparation of new materials and those, on the other hand, for whom the greatest need is a base rationale for the use of the language laboratory and ideas to translate that rationale into an effective teaching programme.

Part II: Preparation of Materials, focused on the teachers themselves and their planning for language laboratory lessons.

### 4.3 Organisation and Management

Similar to Part I, Part III: Questions on Organisation and Management builds a general picture of the language laboratory in its wider role as part of an institute run by a co-ordinated team. Questions 1 and 2 attempt to ascertain who is responsible for the language laboratory and its use. The Questions are: “Is there a co-ordinating body or person responsible for making policy on the use of the language laboratory in your institute?”

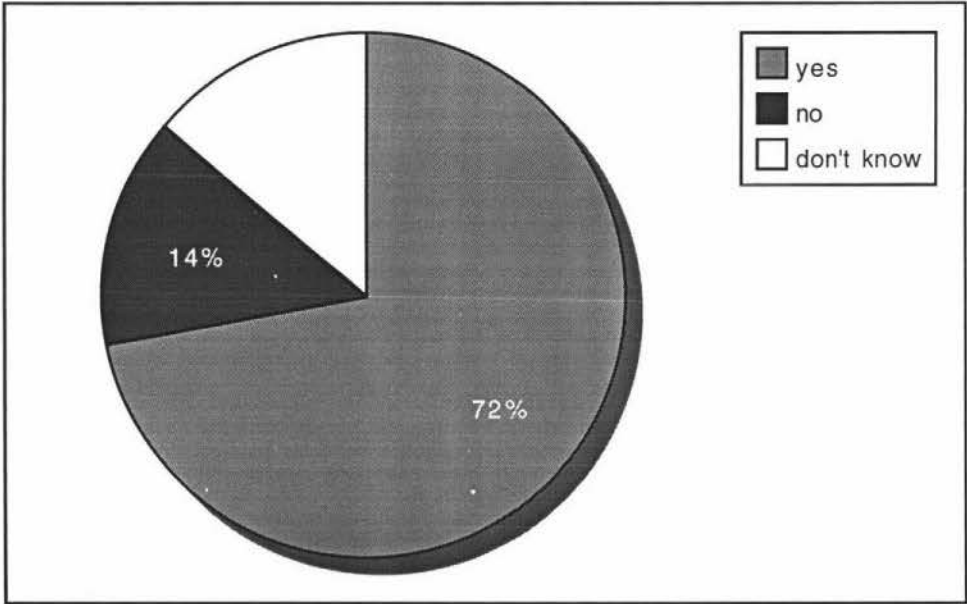
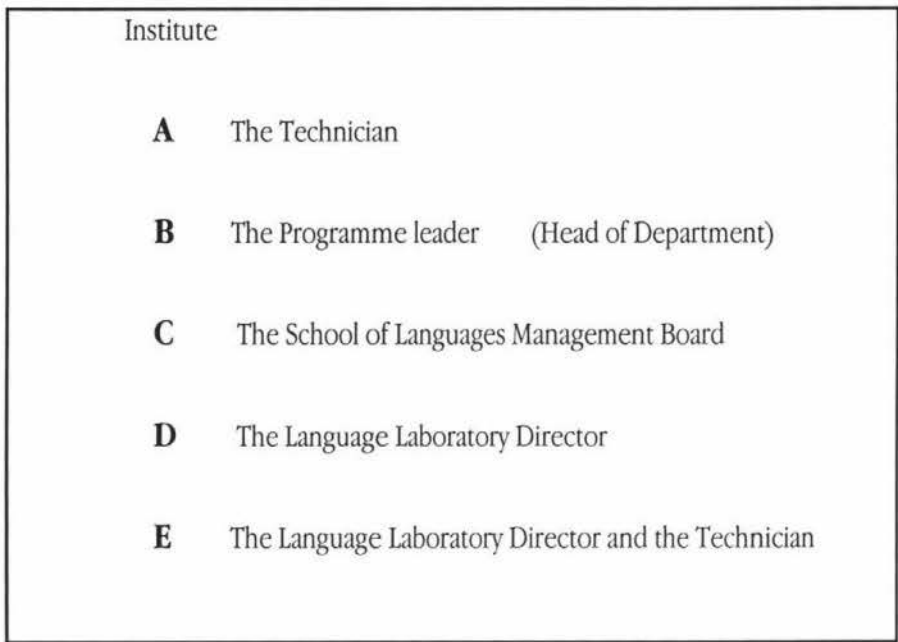


Figure 23: Existence of language laboratory co-ordinating body

“Who provides the outline?”

It is interesting to note that each of the five respondents who answered yes to the question had a different person or group providing the policy for language laboratory use:



**Figure 24: Provider of outline for use**

Question 3 is about role-balance concerning jobs. This applies only to the making of prerecorded audio tapes for use in the language laboratory and at home therefore two respondents could not answer the question as all tapes and software are on a library system or for use inside the institute only. The jobs listed in the questionnaire were those required to produce a basic weekly 'home tape' for students. They were:

- purchases blank student tapes;
- rewinds student tapes each week;
- demagnetizes student tapes each week;
- chooses materials to record on student tapes;
- records material on student tapes each week;
- checks tapes have been recorded properly;
- collects tapes from students each week;
- labels the students tapes;
- distributes tapes to students each week.

The remaining five institutes showed a wide variation with less technician participation than I had expected. The role-balance was heavily weighted towards the teachers.

Institute	Technician	Tutors	Students	Other
A	—	5	2	1 (assistants)
B	3	3	3	1 (no-one)
C	—	4	4	1 (no-one)
D	6	1	1	1 (no-one)
E	1	6	1	1(no-one)
Totals	10	19	11	5

Figure 25: Role-balance

Question 4 requires the same information as Question 3 but it is concerned with the role-balance for material used for the language laboratory session only (students do not remove the cassettes from the language laboratory). The jobs listed were:

- purchases blank master tapes;
- chooses material for recording on tapes;
- records material onto master tapes;
- collects master tape and takes it to the language laboratory;
- puts material on student cassettes in the language laboratory;
- organises storage of used master;
- makes copies of master tape for tutor use;
- labels the master tape.

Four respondents answered this question. As expected, the teachers complete the majority of tasks when the session is entirely language laboratory based.

Institute	Technician	Tutors	Students	Other
A	—	7	1	—
B	—	6	—	3
C	—	6	—	2
D	3	3	2	—
Totals	3	22	3	5

Figure 26: Role division for tasks

Question 5: 'How do you feel about the division of roles (in Questions 3 and 4)?

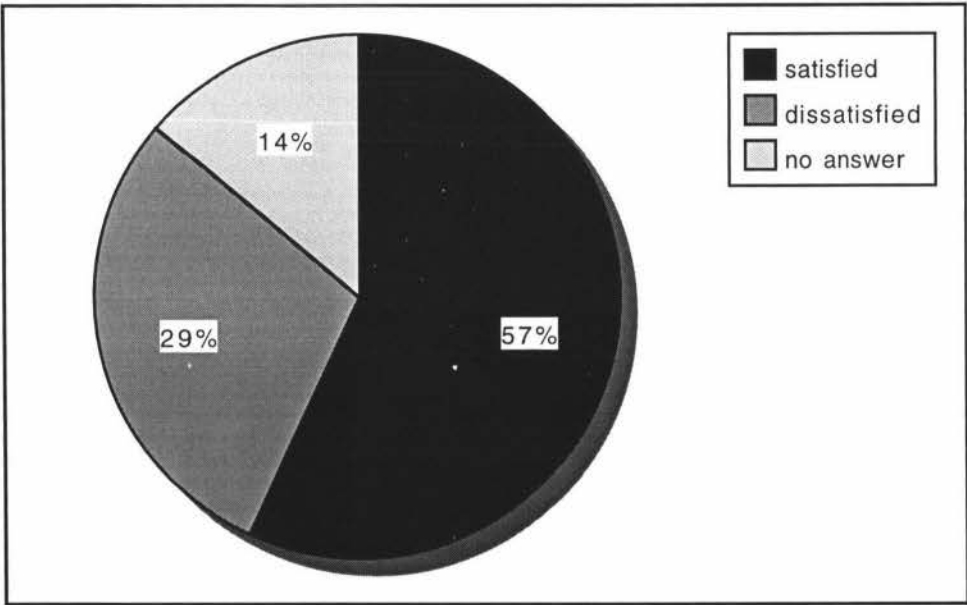


Figure 27: Teacher satisfaction with role division

Question 6 refers to management of the student groups using the language laboratory. Many factors play a part in student non-attendance: Uninteresting materials, repetitive activities, ignorance of methodology of the language laboratory, various blocks to learning etc. all contribute to the students' participation or non-participation in language laboratory sessions. These factors are not measurable with basic survey techniques but it can be assumed that there is some degree of non-attendance by students in each institute. The views of each institute concerning attendance 'enhancers' are sought in this question to learn of various ways non-attendance is managed.

'Do you, or others in your institute, use any student LL attendance 'motivators'?

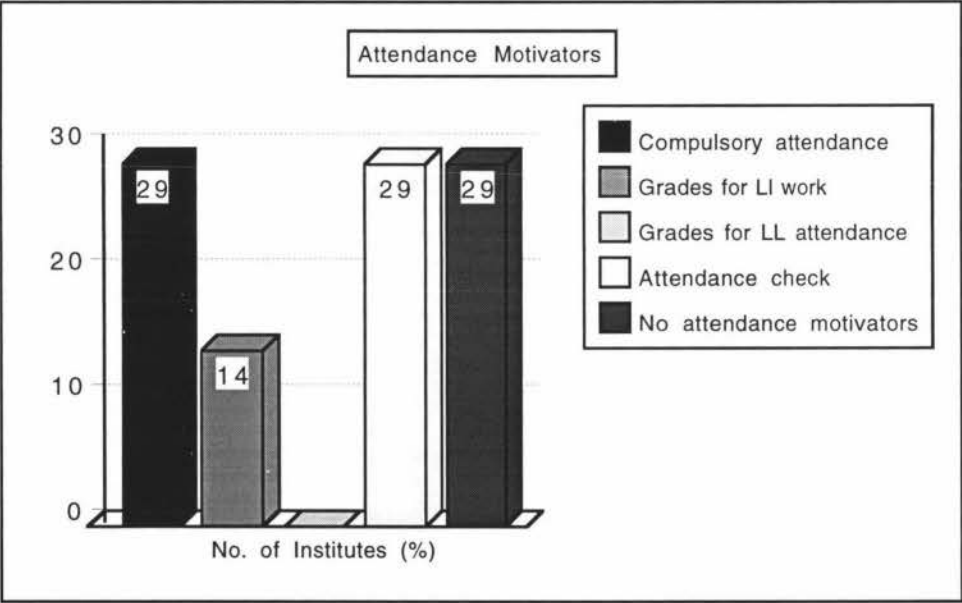


Figure 28: Attendance motivators

**Other (please explain):**

- Listening comprehensions as tests which will be assessed.
- One or two quizzes which count towards course marks.

One respondent replied,

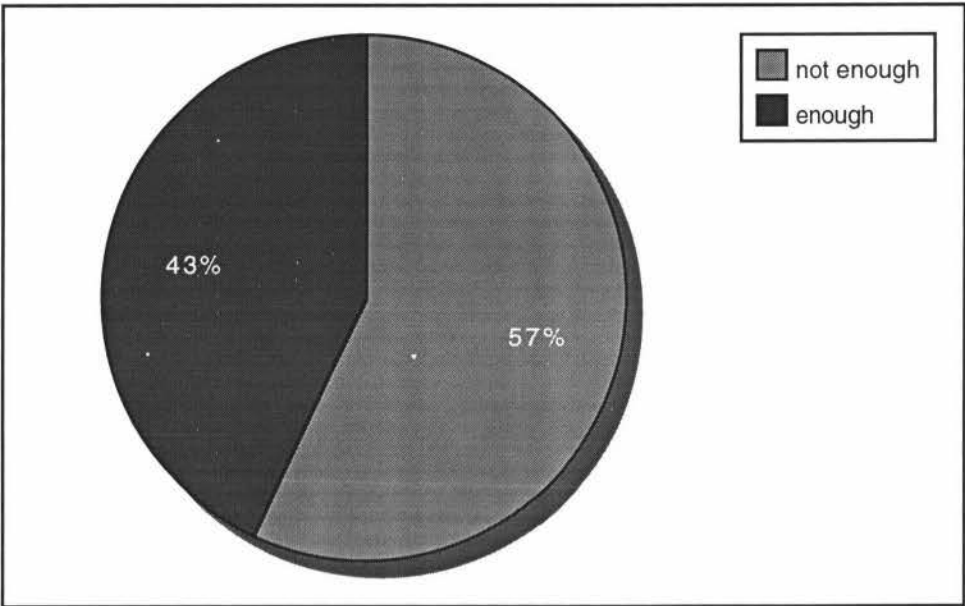
“Reliable students have free access to LL outside of class time. All LL work is self-paced and it is up to the individual how much is completed.”

Question 7 provides details of how much time classes at each institute spend in the language laboratory in their programme:

Length of Programme	Length of LL session	Times Per Week
20 hours	90 minutes	4 times
12 hours	20 minute	3 times
incomplete answer	60 minutes	once
20 hours	60 minutes	once
5 hours	50 minutes	once
1 hour	50 minutes	once
14 hours	30 minutes	4 times

Figure 29: Time spent in the language laboratory per week

Question 8 follows up on the above, requesting levels of satisfaction with the current amount of time spent in the language laboratory.



**Figure 30: Teacher satisfaction with time spent in the language laboratory**

Opinions varied on how many hours would be the best amount of language laboratory time per week.



<b>Institute A</b>
25% for a full-time class and 25% for a part time class
<b>Institute B</b>
Five hours for a full-time class
<b>Institute C</b>
Two hours for a full-time class
<b>Institute D</b>
4 hours for a full-time class
<b>Institute E</b>
One-two hours for a full-time class. It really depends what you do there and what kind of materials are available.
<b>Institute F</b>
One hour for a full-time class
<b>Institute G</b>
scheduled self-study

Figure 31: Optimum hours per week

Question 10: ‘Is the LL available to individual students after-hours (i.e. outside of scheduled LL time)?’, combines with Question 11: ‘Do the students use the LL after-hours?’

Institute	Question 10	Question 11
A	Yes	Unsure
B	Yes	Unsure
C	Yes	Yes
D	No	No
E	Yes	Yes
F	Yes	Yes (some do)
G	Yes	Yes (some, not all)

**Figure 32: Availability and use of language laboratory after-hours**

The results from this section Part III: Organisation and Management are significant. The wide variation in answers suggests a lack of communication between institutes and a lack of reference material for teachers. The full range of answers (Yes, No and Unsure) has been covered in more than one question, suggesting that there is a lack of common policy and overall vision.

The results of this and previous sections of the questionnaire show that the language laboratory is important to our teaching programmes (issue iv) and that we have some awareness of the value of the language laboratory as a learning aid (issue iii). A further issue arising solely from the questionnaire results must be added.

'The ability to *effectively manage* the language laboratory so that its value and importance to learning can be realised.' This issue will become issue (ii) as it is equally as important as Issue (i) Our ability to use the language laboratory to its full extent.

## **4.4 Integration with Teaching Programmes**

Language laboratory integration with the teaching programme can be defined as: The language laboratory and the classroom play separate roles in the language learning process but the materials, methodology and wider policies of language learning within a school are carefully linked and co-dependent, following a single path to language fluency.

Question 1 looks at the perceived role of each area in the language learning process.

	Best in classroom	Best in LL	Best in either	No answer
presentation of new material	71%		29%	
grammar drilling	29%	57%	14%	
pair work/ role play	43%		43%	one institute
listening exercises		57%	29%	one institute
explanation of grammar	100%			
communicative group and pair activities	43%		57%	
group discussion and debate	71%	14%	14%	
interpreting/ translation	43%	43%	14%	
essay	71%	14%	14%	
assessments			100%	
other activities you do (please give details)	• cultural seminars			

Figure 33: Best area for particular activities

Question 2 is to ascertain whether the material used in the language laboratory is different from that used in the classroom.

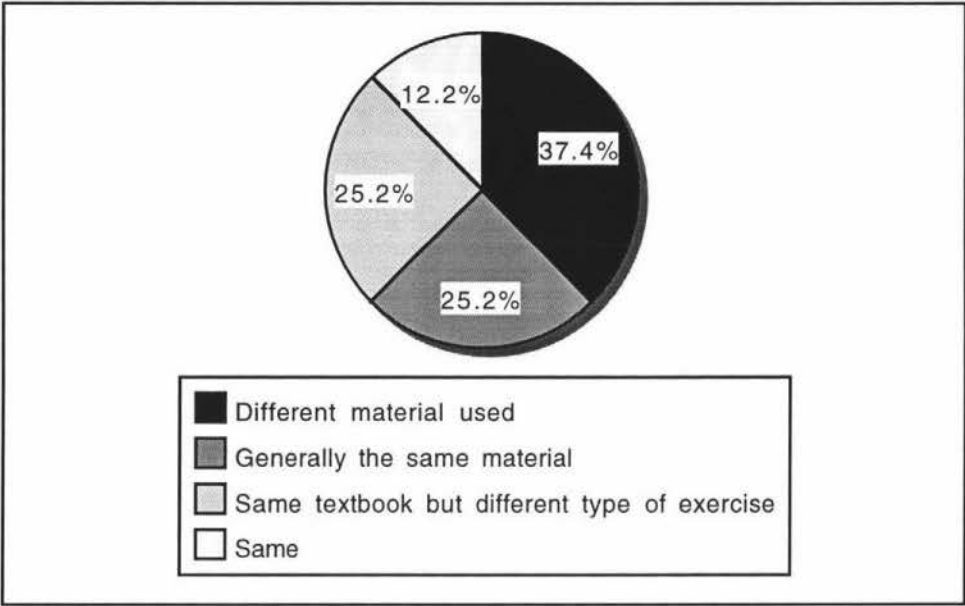


Figure 34: Type of material used in the language laboratory

Question 3 is to evaluate the teacher’s perception of the language laboratory as a learning aid. The question was: “If your LL sessions were stopped how would this influence your programme?”

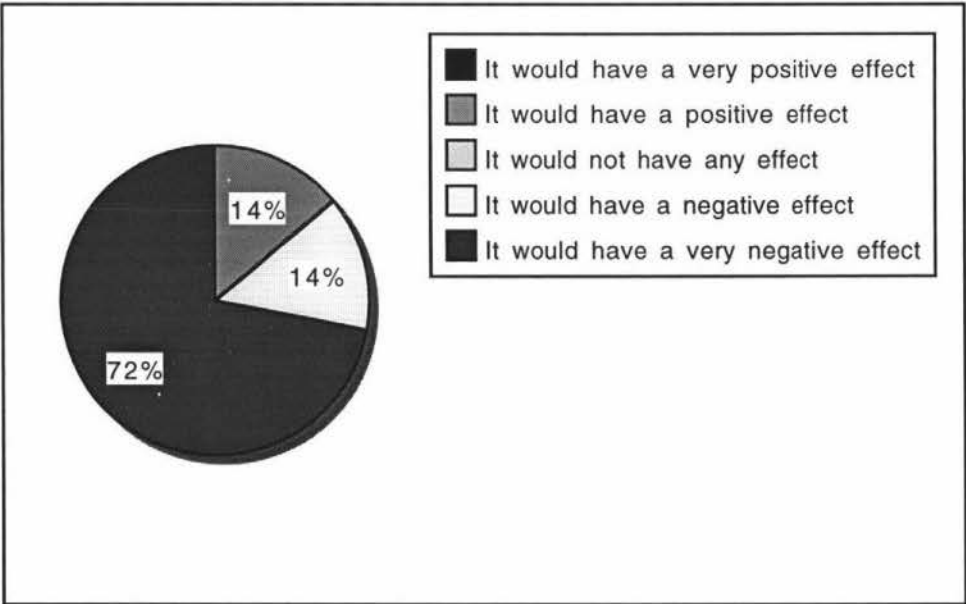


Figure 35: Teacher perception of value of the language laboratory

The results of this survey paint a bleak picture. Only 51% of tertiary institutes with functioning language laboratories are using them to near full or full capacity. Of that 51% or 12 institutes, only seven were able to respond to the questionnaire designed to establish a basis for more effective use of the language laboratory.

Among the seven institutes participating in the survey there is little consistency in the responses given. Looking at the whole picture, in a single questionnaire I found that if the institute's language laboratory sessions were stopped 'it would have a very negative effect' on the programme. However, in the same institute the language laboratory manual is 'not easy to use'; 'no training in LL related areas' is given; the teacher was 'satisfied' with the training available but highlighted 'more training in the use of various LL functions' as one of five highlighted areas necessary for improved LL material design. The teacher did not know the co-ordinating body responsible for policy making and felt that the time spent in the language laboratory every week was 'not enough'.

This is perhaps not an unusual situation if a deeper look is taken into the workings of any school or company but it proves without doubt that the language laboratory is of lesser importance than other areas of the workplace and it is not being used effectively.

Any of the responses such as 'I am sometimes uncomfortable operating the LL functions I know' or 'More guidelines on what can be done in the LL' are necessary and 'the time spent in the LL is not enough' (all three responses from a single institute) point clearly towards ineffective use and the immediate need for self-empowerment and clarity of vision and planning to give the language laboratory the place it deserves in teaching from the year 2000 onwards.

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## Chapter 5 Discussion

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The language laboratory discussed up until this point has been the basic AAC or Audio Active Comparative language laboratory *with* or *without* other features. The original focus of the research was inadequate oral language production in the classroom because of a tendency towards passive learning. This problem could be remedied by the use of audio tape lessons in a carefully prepared and managed AAC language laboratory session.

The survey allowed for AAC language laboratories with any added features such as video monitors, satellite links and it made no real distinction between audio-based language laboratories and computer-equipped language laboratories.

As the argument for more effective use of the language laboratory developed, however, certain weaknesses in the basic AAC language laboratory systems were revealed.

- Young users are critical of the slow speed of access. Finding the correct spot on a 90 minute tape is an arduous process. The pairing function is limited to 1-2, 3-4 pairing and accessing this function takes time. Such slow processes are compared unfavourably with the computer.
- In an era of computerisation the language laboratory *looks* old fashioned and this does nothing to improve the existing image of an outdated, automated pattern-drilling machine with a secretive monitor listening critically to every word uttered.
- World-wide access to the Internet has made audio tapes without video or satellite peripheral equipment, seem very limited.

With these 'image' factors affecting even an effectively organised language laboratory with high and balanced use, it is imperative that future planning takes into serious consideration the

updating or incorporating of the existing language laboratory into a modern system such as the Sony LLC-5510 or LLC 2000MH computer-controlled digital learning systems. The computer-controlled systems have all the necessary audio functions as outlined in this research, with many of them, such as the pairing function, highly improved. They function as computers, can have individual video monitors and library mode functions where students can instantly call up stored audio programmes.

To fulfil the outlined roles and modern needs in this research paper a multimedia system with full audio functions is more suitable than a 1980's style AAC language laboratory. The unsatisfactory answers gained from literature on the preparation of materials for language laboratory learning can be given an extra dimension when a digital learning system allows for one touch speedy recording and editing of audio material. Unfortunately even this falls short of a perfect solution to materials-preparation problems. However simple it is to record materials, they still need two to three years to be carefully given a trial, corrected and refined before a polished version can be released for student use.

The term 'language laboratory' used for discussions in Chapters 5 and 6 will refer to a computerised digital learning system with peripheral features such as individual monitors and satellite links. The term used to describe this will be multimedia centre or multimedia language laboratory. The AAC language laboratory used in combination with video equipment is adequate for the model of effective use proposed in this paper, but for the serious user wishing to design and edit materials to suit a fully integrated classroom and language laboratory programme in a modern and attractive environment, the modern digital learning systems are more suitable.

The issues relating to effective or ineffective use of the language laboratory are based on Vanderplank's (1982) pertinent questions.

They are:

- (i) Our ability to use the language laboratory to its full extent.
- (ii) Our ability to effectively manage the language laboratory so that its importance to learning can be realised.



- (iii) Our ability to keep pace with the changing nature of language teaching.
- (iv) Our awareness of the value of the language laboratory as a learning aid.
- (v) The importance of the language laboratory to our teaching programmes.
- (vi) Self-paced, student-centred learning versus teacher control.

Detailed analysis shows: Only twelve out of the thirty-two language laboratories in New Zealand tertiary educational institutes are reported as having 'high' or 'very high' use. This situation supports my theory of an overriding lack of knowledge and interest in the language laboratory as a learning tool. A language laboratory is an enormously expensive unit to purchase and maintain. It requires a wide range of support personnel and supporting equipment, systems and long-term finance. The grass-roots reason for this lack of enthusiasm can be found in the poor quality of training currently available in the majority of institutes.

## 5.1 Our Ability to Use The Language Laboratory to its Full Extent

The poor quality of training affects all users and is compounded by poor organisation of the facility. In 57% of institutes training is optional, clearly revealing the attitude that it is of low importance and is a simple procedure not necessary for *all* users. In 71% of institutes the form of training, whether compulsory or optional, is a 'one-off' oral explanation of functions.

There are 37 main functions in a post 1970 basic language laboratory without any computerised or multimedia functions. There are, as with all modern equipment, an infinite number of questions arising from the use of those functions.

One function 'Test-Recording of a Student' for example, unless fully explained, demonstrated and kept in mind by the provision of handy, easy to understand instructions, will leave the language laboratory user with many doubts.

- Can the test recorded in this manner be listened to at home?
- If the cassette recorder in the student booth is not working, will this affect the test-recording taking place in the master console?
- If it will affect the recording, will the error signal show up?
- If one student has a very small voice and is sitting at the back of the language laboratory will this affect the quality of the test-recording?
- If the test is to be recorded on a tape which is a file of this and previous tests, how can the teacher efficiently find the spot to begin marking the current test?
- Is it possible to test-record a group of students at one time?

These and many more questions will arise as the teacher begins using the function. Admittedly, with correct training many of the above problems would not arise, but we can safely assume that the basic methods of training taking place in New Zealand tertiary institutes at present are neither detailed enough or lengthy enough to cover more than one or two of the type of points brought up above.

*A single oral* explanation of functions does not allow for :

- A wider view of the role of the language laboratory in the institute or in the programme of learning.
- An understanding of the requirements of effective physical functioning and maintenance of the equipment and the participatory roles within that picture.
- Training in language laboratory *related* equipment which can boost awareness of what can be achieved with the learning aids available within the institute and can encourage effective methodology updating.
- Changing patterns of use. Single explanations are suitable only if all the explained functions are used all the time by all teachers. In reality a variety of functions are used, some every week, some as little as once a year. New staff members or teaching 'teams' with changing groupings are entering and leaving the field

regularly, especially in the larger tertiary institutes.

- The wide range of needs outside of Vanderplank's 'being comfortable mechanically'.

**Teachers need:**

updating of methodology  
problem management training  
ideas for creative language laboratory use  
a philosophy for use

**Students need:**

ongoing guidance in correct use  
clear instructions  
training in responsibility for own learning  
a philosophy for use

The greatest requirements for teachers moving into the 21st century are confidence and a high comfort-level when handling equipment which is a learning aid or a tool of communication for learning.

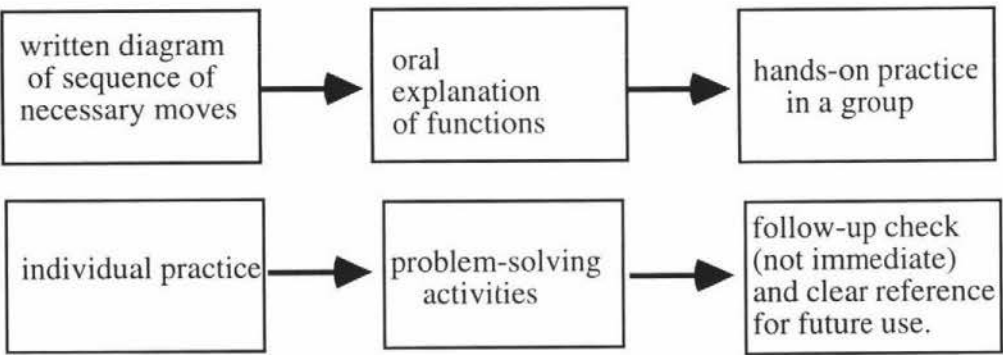
After many years of the teacher being the centre and the controller of learning, the student group and the learning individual have become the central focus with 'learning' becoming a higher priority than teaching. This may change in the future but increased understanding of the learning process and the human psyche are giving us tools to make the most of this focus and provide an optimum learning environment. I predict the next fifty years will *not* see a major shift in focus.

However, already the peripheral 'aids' to the learning process such as computers and language laboratories are beginning to demand the teacher's time and attention as they become more technologically advanced. The result is either, less than effective teaching or facilitating as

teachers attempt to divide their attention between the students and the technology, or ineffective use of learning aids as we have seen in the survey, where teachers put more and more time into the student group, their immediate focus, and still gain poor learning outcomes and poor results because they are ignoring the technologies chosen to help them facilitate higher results.

The single answer to this problem is more effective training and a greater proportion of time set aside for that training.

It is essential that the concept of 'training' be extended from the 'explanation of functions' mode it seems set in to include a 'lively and colourful ' presentation of the following areas.

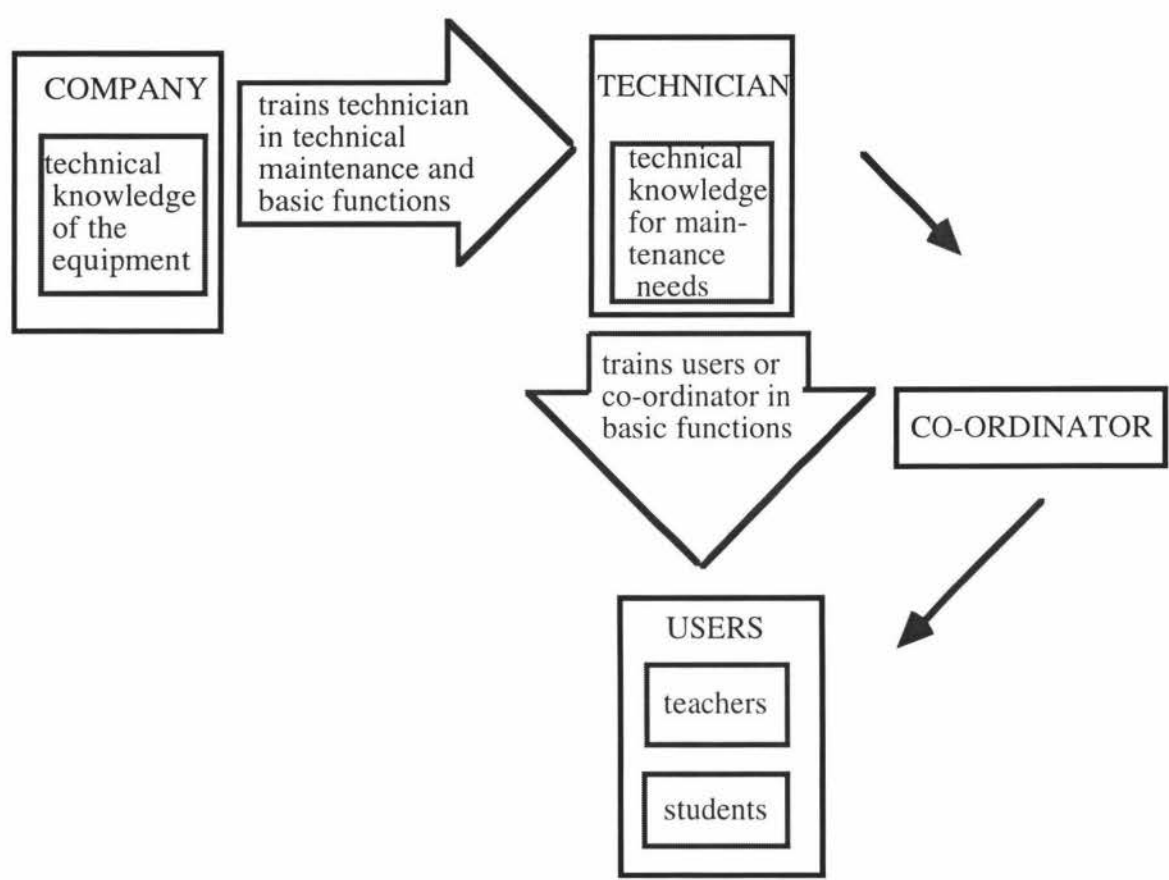


**Figure 36: Presentation of language laboratory functions**

Similar training methods are used to train highly effective company employees. It can be argued that self-help material is available therefore such detailed training is unnecessary. All language laboratories, when installed, come with a technical manual explaining each function and how it can be manipulated.

It is unclear, however, whether the manuals are for teacher reference or technician reference. Each model of language laboratory has a separate manual and, in my experience,

some have been quite user-friendly and others have been impossible to follow. 71% of respondents in the survey said the manual *provided by the company* was ‘not easy to use’. This highlights a further fundamental issue.



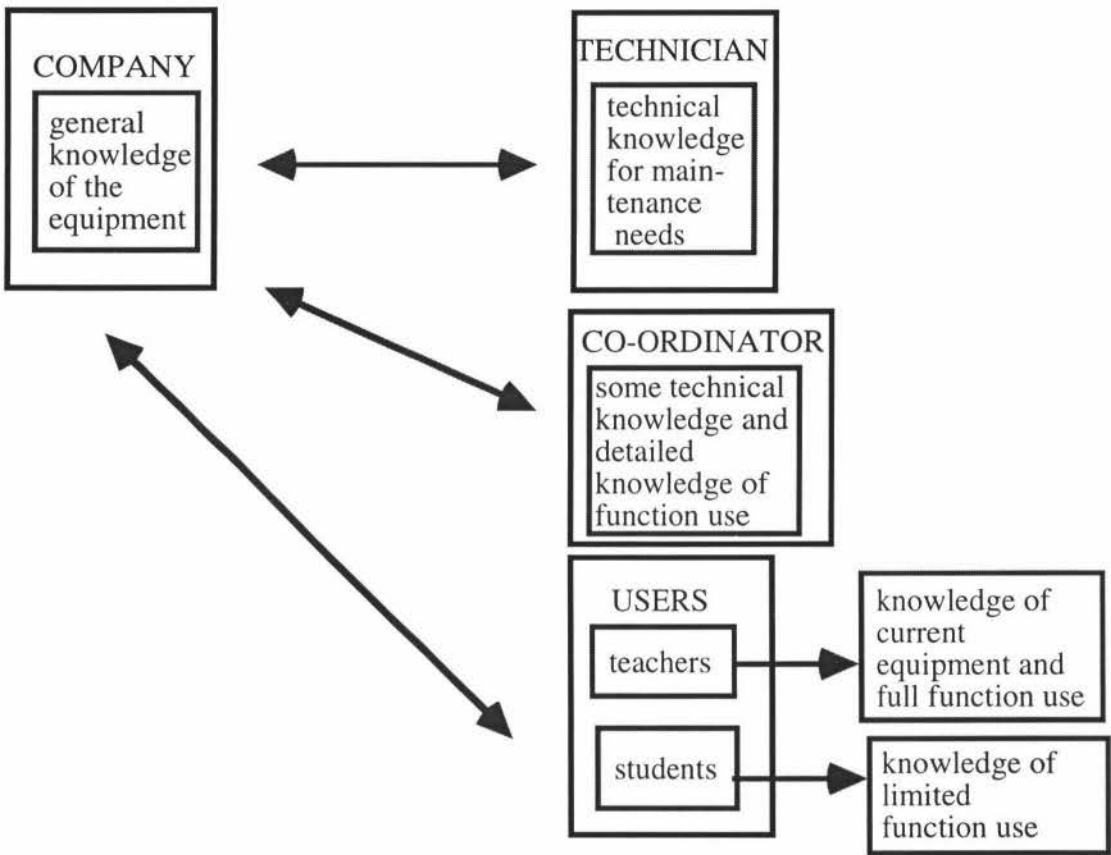
**Figure 37: Company input**

The training is fragmented. The purpose of training is different each time information is passed along a line. The users have no contact or communication with the providers (the language laboratory distributors) beyond (in some cases only) an initial *training* session which in most cases consists of a one-off oral explanation of functions.

Can we require the providers to take responsibility for training in three separate areas? The technician, the co-ordinator and the teachers and students, clearly have different training needs. In reality the language laboratory users are those most closely linked to the providers. The equipment is not being devised and assembled with technicians or language laboratory co-

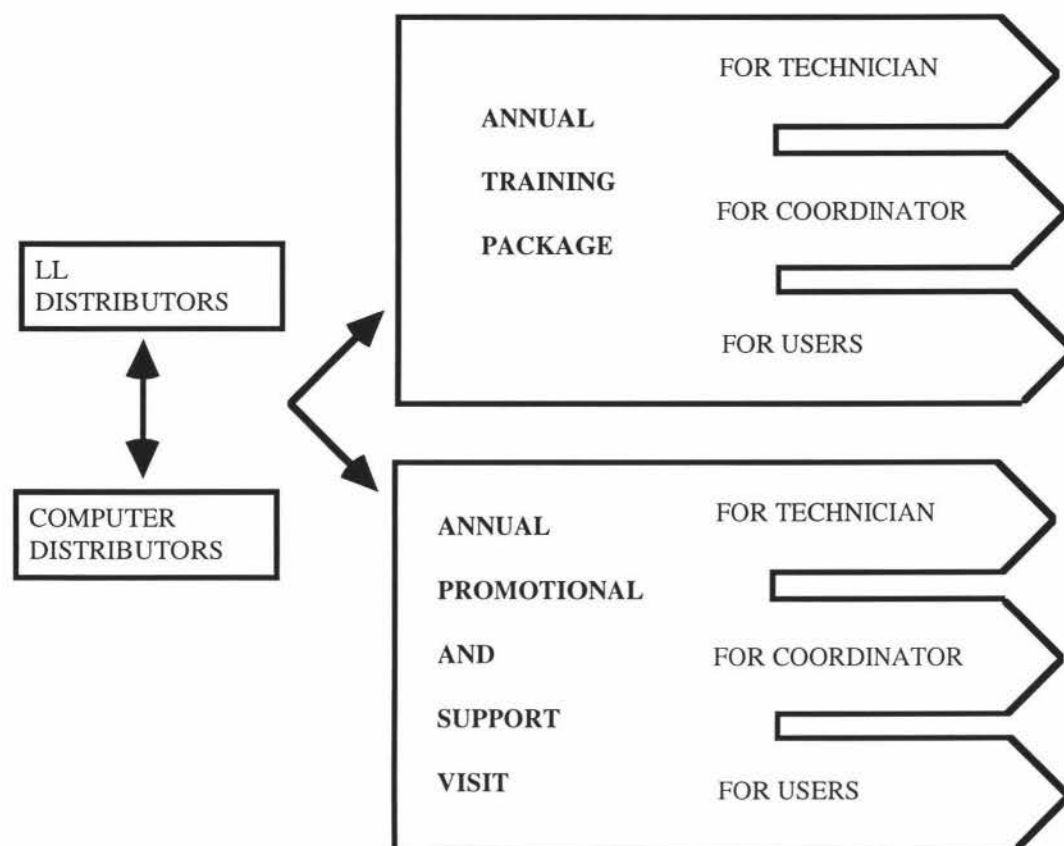
ordinators as the main focus.

There is little or no flow of information and ideas between the distributing company and the language laboratory users . I suggest a different picture for the immediate future:



**Figure 38: : Desired company input**

It is perhaps unnecessary for the users to directly influence the language laboratory distributors in terms of design and improvement of the equipment as the language laboratory equipment is designed overseas. The full two-way communication flow then is not necessary but the users must play an active part as *receivers* of information to ensure they know the wider picture and can see that the language laboratory distributors do not neglect to focus on their real target, the teachers and students who use the language laboratory on a daily or weekly basis.



**Figure 39: Responsibility for training and exposure**

The final responsibility for provision of written guidelines must be taken by the institute. It must include:

- A technical manual easily available for technician or language laboratory user reference.
- A clear 'manual' or some other immediately available form of reference detailing basic use, i.e. functions for teachers.
- A training 'package' for students which includes
  - a) explanation of functions;
  - b) explanation of reasons for language laboratory use;
  - c) explanation of expected procedures and behaviour in the language laboratory;

- d) explanation of programme they will follow;
  - e) explanation of type of activity and type of instructions they can expect;
  - f) explanation of how to achieve maximum results;
  - g) trouble-shooting procedures.
- Provision of clear 'Help Me' guides (refer page 15) within reach of the students and teachers in each language laboratory .
  - Pointers to where literature pertaining to the language laboratory and current teaching methodology is available and book-lists with attached comments by teachers.

The above requirements are for written material only and it is taken for granted that hands-on practice and problem-solving sessions will accompany the distribution of this material.

Responsibility for written material can be shared between institutes or between language laboratory company and institutes if networks are set up between these groups. The material differs only in the language laboratory model being used and the programme of learning. Access to transportable files allows information to be changed to suit a particular need without the initial huge load of devising and producing the basic information.

The quantity of training in language laboratories throughout New Zealand is insufficient and the form it takes is unsuitable. Training in the 1990's must be tailored to suit changing times. Increased demand on our time made by increasingly complex technologies means that the reference material for each technology we, as teachers, encounter must be clear, simple, noticeable and as complete as possible. It must be backed up by initial competence and confidence acquired from workshops, problem-solving and carefully planned training. A philosophy of use and a definitive role for the language laboratory to suit each situation is a necessary part of training.

The language laboratory sits comfortably with computer technology but the surveyed



institutes in New Zealand used either the basic AAC language laboratory or a computer laboratory without fully integrated functions. For the teacher to understand the possibilities of combined multimedia and how existing equipment can be integrated and managed, the companies providing the technologies must work together with a language laboratory director. The director may be a teacher, a technician or an administrator but this aspect of the role must be clearly defined. As Rivers (1981) et al. suggested, one role of a language laboratory director is to advise and purchase new equipment. A 1990's version of this task would be to co-ordinate the updating and integrating of the equipment as technology changes, without losing sight of the basic role the equipment must play in the particular institute.

When the above training policies are in place other issues can be considered.

## **5.2 Our Ability to Effectively Manage The Language Laboratory so that its Importance to Learning Can be Realised**

Use of the language laboratory must also be organised with care and efficiency. Information concerning the timetabling of the language laboratory is outside the range of this research as simple minimum-choice data on perceived use of the language laboratory is inconclusive. High, medium or low use of the language laboratory appears to bear little relation to type of courses or number of students taking courses.

The ideal language laboratory timetabling structure is one of *high* and *balanced* use.

Language laboratories are, by necessity, a shared facility because of the high cost of purchase, support and maintenance. To provide optimum access for different staff and student groups many factors must be considered.

• **Each group must have peak-time access:** As peak-time is limited planning may need to include strategic use such as two small groups using the language laboratory at the same time. Without clear philosophies and communication, however, language laboratory sharing is not an option. It requires:

- (i) effective use of the equipment by well-trained teachers;
- (ii) clear (recorded) instructions;
- (iii) constant and 'expected' activities such as listening comprehension or simple student to tape speaking activities.

Within a well-planned programme it is not difficult to 'match' classes engaged in these activities. Consideration must be given to self-access language laboratory use or the shifting of one or two weekly sessions to times outside peak-use hours. In many cases it is just timetabling or habit that requires teachers to sit in front of a group of students engaged in verbal practice of previously learned material. Assignments for grading, or homework assignments should be given to students to complete in a designated self-access language laboratory session. This would increase their familiarity with the language laboratory and would enhance their motivation. As well, carefully-constructed revision programmes to be completed in the language laboratory can bring very positive results. Teachers as early as 1987 were suggesting the language laboratory be used as an extension to the tightly-regulated hours of teaching offered to students in a university situation (Norrish 1987: 20) The important role of teacher as monitor need not be lessened by the shift to self-access of one or two language laboratory sessions from a weekly allowance of five *as long as the teacher has a clear rationale for monitoring student progress in the remaining sessions*. With a considered and balanced timetable the language laboratory can be a high-use facility over a maximum daily time period.

• **The language laboratory must be available for individual teacher use:** All teachers must have access to an unused language laboratory at least once a week for training sessions, personal practice, marking of student tapes, basic recording and testing of single students.

To timetable such an option requires access to detailed information on teaching timetables so that *all* teachers have the opportunity to use the language laboratory in this way

• **The language laboratory must be used fully:** The language laboratory or multimedia learning centre can be made available to other faculties on a user-pays basis in non-peak hours. This will involve marketing the possibilities for use with other groups. Creative uses need to be considered and presented to other faculties. Maori students, for instance score consistently poor grades in written economics examinations but if they are given the opportunity to record their answers orally onto a 'Test Tape' or directly onto the student recorders in the language laboratory, then they have a chance to give evidence of their knowledge in a medium they are more comfortable with.

• **Changing patterns of language laboratory use must be monitored:** If a particular class stops using the language laboratory altogether or begins using it intermittently, then this time must be made available to others. Self-access use must also be closely monitored to check that running costs do not exceed student use.

Balanced and planned use of the language laboratory requires effective organisation. In turn this encourages effective language laboratory use as overall co-ordination and communication between user bodies increases when improved planning takes place.

As computer and language laboratory facilities become fully integrated the organisation of the overall facility becomes more complex. More interested bodies with different needs will wish to use the multimedia equipment for the computer, audio or video functions. Co-ordination and technical support must be provided on a full-time basis. A sound philosophy and carefully constructed financial and organisational bodies with clearly delineated participatory roles will aid this move into increased technologically-aided language learning.

The consideration of and planning for further technological change and methodological discovery and change will become the key issue when the above moves are made.

### 5.3 Our Ability to Keep Pace With the Changing Nature of Language Teaching

Recent technological change is celebrated in the media and there is wide exposure to new equipment and new inventions through existing technology. Aggressive marketing also plays a significant part in the amount of exposure we have to new technology. Individuals are pressured to understand and accept changes taking place as whole institutes begin using labour-saving computerised equipment. The rate of methodological change is equally rapid. Studies of a linguistic, scientific and practical nature are taking place world-wide. However, it takes time for these studies to be accepted and built upon. Scholarly publications follow but are slow to filter into libraries and other places accessible to the busy teacher. The development of a world-wide information web speeds the process up but the individual then has the added task of deciding which material is of value from a wider quality range than previously.

The linking of research publications and scholarly studies into a methodology or practical applications for the classroom takes even longer. There is often little pressure on the individual teacher to apply new methods until carefully researched trials have taken place and accompanying teaching materials are available.

Our ability to keep pace with the changing nature of language teaching in our classrooms and, more particularly, in the language laboratory is limited by this slow filtering down of advanced methods of learning. It is complicated by the existing negative image of the language laboratory, the further five issues discussed in this paper and by the fact that the language laboratory is one of few language learning tools used almost solely by a minority learning group. The situation can only change with an improved flow of communication between institutes using language laboratories or multimedia facilities.

Many users still believe the language laboratory *is* a methodology therefore they find it difficult to relate new teaching methods to their unchanging patterns of use in the language laboratory.

Communication and information sharing will encourage greater dialogue and research. Institutes should begin to see the need to develop strong participatory roles beyond the teacher and the technician. The language laboratory co-ordinator and/or director will provide information on updating and integrating language laboratory equipment with fast changing computer technology. They will understand the need to integrate classroom work with the language laboratory programme and they will advise and inform teachers of changing methodology and its practical application.

It is timely that much current research being completed on language learning relates to the role of listening and speaking in the language learning process<sup>5</sup>.

## 5.4 Our Awareness of the Value of the Language Laboratory as a Learning Aid

The language laboratory is a learning tool not a methodology for learning. It was produced before its time when comparable tools of learning did not exist. The teacher and the textbook were the sole learning resources and they existed without tools of learning until the introduction of the tape-recorder into the classroom. The tape-recorder as an early learning aid was far away from the one-touch record and listen personal walkman tape-recorders available for such a small cost today.

The Keating report which measured the language laboratory against similar *classroom* learning was damning in its appraisal of the language laboratory. The language laboratory was not measured against other *tools* of learning, obviously because sophisticated technologies which have provided us with learning aids such as television, video, computers and modern tape-recorders were not available. From this time we have mistakenly assumed that the language laboratory was a type of mechanical teacher in an automated classroom. The awareness of the

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<sup>5</sup>Texts such as Michael Rost (1990) *Listening in Language Learning* and J. Marvin Brown & Adrian S. Palmer (1988) *The Listening Approach* provide information and teaching ideas for listening while Robin Melrose (1991) *The Communicative Syllabus* looks at the role of speaking in language learning today.

language laboratory has been faulty from its inception and with negative feelings around for so long the issue of those misconceptions has not been clearly addressed.

Changes in teaching methodology have not been clear cut either. There is no one point where a favoured methodology ends and new teaching methods are accepted by the majority of classroom teachers. Because of this, two problems have surfaced in the 1980's and 1990's.

Many of those who have moved from Audio-Lingual methods to a Communicative approach or even further to a methodology which takes into account *how* people learn, have retained the basic misconception that the language laboratory is a teaching methodology i.e. a vehicle for Audio-Lingual style learning. They have changed their *classroom* teaching style to fit a communicative methodology but continue to use the language laboratory *solely* for the drill and practice they used with Audio-Lingual teaching.

The second problem faces those who have moved fully over to a communicative style of teaching but who cannot see how this relates to language laboratory learning because they have an unclear picture of the role of the language laboratory in the learning process. They are left without 'creative' ideas for use. This call for creative ideas often reveals a deeper lack of understanding of the role of learning tools in general and the language laboratory as a learning tool linked to the teaching programme, in particular.

Teachers begin using the language laboratory with training in use of the basic functions it offers. They do not begin with a philosophy for use or an awareness of the value of the language laboratory .

Many questionable philosophies for the language laboratory have been set out in the limited publications since 1960. The language laboratory must exist to help the teacher (Gaarder), to replace the teacher (John), to control the students working as one group (Harding and Rogers). The sudden development of technology has brought about a trend to embrace the new at all costs. In many cases this is done without clear decisions on the role of the new technology.

A philosophy of use must be devised to suit each group using the language laboratory . Our awareness of the value of the language laboratory as a learning tool hinges entirely on this point. A general role for the language laboratory and its place in the 21st century must be supported by an individual philosophy which includes the necessity for this learning aid within a particular school or programme and how it can be used to achieve a set of clearly-defined learning outcomes.

Awareness of the *value* of the language laboratory as a learning tool is difficult to inculcate. Purchase or use of the language laboratory is very rarely an individual choice. A language laboratory is purchased then remains in the institute for many years longer than staff involved in the original decision to purchase.

The language laboratory is part of the block timetabling for many language courses. There is no chance to propose alternative learning tools. The language laboratory exists and is not seen as a high-cost learning tool. Suggestions to replace the language laboratory in one programme with one of the following 'tools' of learning:

- a video library and a class set of monitors;
- a class set of computers for use daily in the classroom;
- daily activity sessions with a group of native speakers;
- three month long exchanges with the target country annually,

would not be considered because of the initial cost of setting up, in most cases considerably less than the purchase-cost of a language laboratory.

However the language laboratory is a learning tool best suited to more than one group of users therefore it is cost-effective and this factor overrides the need for a learning tool suited to an individual course. The current situation truly reflects the opinion of E J John (1997. 295) whom I have discredited for his poor attitude towards the language laboratory :“if we are saddled with one...”

The perceived value of the language laboratory may not arise from direct individual choice

but the wider social situation, which influences teaching greatly, demands a learning tool *such as the language laboratory* or one which can produce similar results. The 21st century will see the culmination of a 50 year period of remarkable technological change and huge displacement and shift of ethnic groups throughout the world. The concept of a global village is reality. The ability to speak one or more foreign languages will be at a premium. Effective communication will be taken for granted and the demand for capable speakers of all languages trained in specialist areas and business and cultural etiquette will peak. A single teacher in a single classroom will be unable to meet the increased demand for better and quicker results in language learning.

Other language learning aids are available but many, such as 'immersion' over a period of time in the target country, focus on the student with excellent self-study skills and learning strategies. Far too often those students develop at a rapid rate in one language area that they favour and neglect others to the detriment of their 'whole-picture' language skills. It is rarely the case that all students have effective self-study skills even in this enlightened age. The language laboratory can provide a subtle control over skills-balance and language focus. Combined with input from the teacher/monitor the students can be trained in improved language learning techniques.

Advanced technology is providing many improved tools for both teachers and students. **Media technology** and improved marketing methods can provide an enormous range of highly effective reading materials. **Computer and satellite technology** can provide authentic cultural material with individual exercises to greatly improve understanding and recall. **Video technology** can provide an infinite variety of visual and audio material for use as a language learning resource and as a motivating factor.

Other than human resources which are rather difficult to use and recycle many times, the modern multimedia language laboratory stands alone in its ability to provide intense controlled practice in all of the above *plus in speaking skills*.

When we become aware of the value of the language laboratory we can then see its availability as a positive thing rather than as a burden. The language laboratory does exist in most



New Zealand tertiary institutes and in some secondary schools. It can be purchased second hand from other institutes. With re-education and training in the six areas I have outlined as being of major importance, the existing language laboratories can be seen as a starting point for the building of a highly effective aid to increasing language skills within a very short time. The six areas are:

- (i) Our ability to use the language laboratory to its full extent.
- (ii) Our ability to effectively manage the language laboratory so that its importance to learning can be realised.
- (iii) Our ability to keep pace with the changing nature of language teaching.
- (iv) Our awareness of the value of the language laboratory as a learning aid.
- (v) The importance of the language laboratory to our teaching programmes.
- (vi) Self-paced, student-centred learning versus teacher control.

Literature within New Zealand needs to reflect a greater value placed on the language laboratory as a learning tool. It must provide guidelines for practical application of new methodology in the language laboratory and in the teaching programme. Without integration between classroom and language laboratory work, changes in teaching methodology will fall behind technological changes as little experimentation and research is taking place in New Zealand or world-wide concerning what should be done in the language laboratory today.

## **5.5 The Importance of the Language Laboratory to our Teaching Programme**

Fifth in placing because it is a concept which cannot be considered before issues (i), (ii), (iii) and (iv) are dealt with, is (v) The importance of the language laboratory to our teaching programmes. This is the main focus of my argument.

Used alone, the language laboratory reverts to a mechanical teacher in an automated

classroom. Used in combination with the teaching programme the teacher in the language laboratory can help students increase all generic skills and target specific ones which are not suited to a classroom practice method.

In many cases the language laboratory is used for no more than one short session per week. Such restricted use of an excellent learning tool is not beneficial to students but until greater acceptance of the language laboratory takes place this allowance will not be increased. In the case where the language laboratory is not being used on a daily basis, integration with the teaching programme needs to have an even greater emphasis placed on it.

Various methods can be adapted to provide this focus. Students listen to a short passage or watch a short video-clip as soon as they enter the language laboratory. They are then required to identify how many of the learned structures from a current language unit they recognised. They can also identify if those structures were used exactly as they learned them or if they were combined with other structures. Many other factors can be discussed: What structures from previous language units were recognisable if any? Did pronunciation differences, external noise or speed of delivery have any effect on student understanding of previously learned work?

Students can be asked to repeat certain structures *exactly* as they heard them or alternatively they can be asked to identify a word or phrase and use it in a similar way to how they heard it used on the tape, allowing for some creative input.

This activity can provide a link between the teaching programme and any listening or information-gap work taking place in the language laboratory.

The teacher can use the external speaker to relay a small portion of the student tape to all students. On the tape can be a natural conversation using ideas from the current teaching unit. The teacher can make the point that this conversation does not contain all the structures and vocabulary from the current unit. It also has (for example) greetings, jokes, feedback and opinions. Students can identify an example of each of the above and with the help of the teacher can identify which areas are important to hear and understand clearly.

A short reading of part of the current teaching unit can be recorded by each individual student onto a tape in the teacher's console. This can be used for individual advice on how to improve pronunciation and it does not need to interfere with any other activity the remaining students are completing in the language laboratory at the time.

These and many other activities can be used as part of each language laboratory session or even every second week so that the link between the teaching programme and the learning tool is re-emphasised all the time.

The historical focus on language laboratory learning in literature has been on the teacher. Writers have worked to answer such questions as:

- How can the language laboratory reduce the work of the teacher?
- What can the language laboratory do that the teacher can't do?
- How can the language laboratory effectively do things teachers don't want to do in the classroom?

I suggest a change in focus away from the teacher and on to the teaching programme:

- How can the language laboratory enhance the skills being developed in the teaching programme?
- How can the language laboratory help students to effectively use the set time available for maximum achievement of the programme's learning outcomes?
- How can the language laboratory provide a learning situation which will encourage peak concentration from the students?

The language laboratory can be used with or without a teacher but until effective programmes for student development of learning strategies have been set in place it is advisable that a teacher monitor the majority of the language laboratory sessions. The focus however is on the role of the language laboratory and how it relates to the teaching programme rather than how it relates to the teacher.

## **5.6 Self-Paced, Student-Centred Learning Versus Teacher Control**

All students are equipped with a language laboratory package. They are fully trained in the use of the language laboratory. They know in theory why they are using the language laboratory and they clearly understand what they are expected to do and what they are expected to achieve in this and every language laboratory session they attend. Help is available in clear easy-to-read guides on hand beside each student recorder.

It is the job of the teacher and the language laboratory personnel to provide the above learning environment for all students.

In an ideal situation, the student inserts a home/school study tape into the student recorder and works on the required activities at his or her own pace, using a dictionary if key words are not understood. If the time given is too short for one individual he/she returns and completes the activities in one of the many self-study language laboratory sessions available throughout the day and evening.

In the above situation the teacher does not need to control any part of the lesson and, indeed, for certain activities where vocabulary and structures are limited, the teacher does not need to attend the lesson other than to provide handouts and make sure a spare tape is available if a student has forgotten to bring the home tape or if the metallic ribbon in the tape breaks.

In a more realistic setting four main factors influence the ideal.

- 1) Student non-attendance.
- 2) Student attending but attempting to avoid completing any more than a sentence or two (often due to poor study skills, poor motivation, frustration, fear or other

learning blockages)

- 3) Student not understanding enough key words to selectively hear the information required to complete the activity. This is often compounded by misinformation from friends.
- 4) Student's continued ignoring of instructions and choosing of a less-demanding response. An example of this is a basic pattern familiarization drill. The instructions are: Listen to the English sentence. Attempt to give the Japanese equivalent. You may stop the tape to do so. Listen to the Japanese model. Practise the pattern many times until it can be fluently produced within the time given. The student listens to the English sentence, silently waits for the Japanese model then repeats the Japanese model and moves on to the next sentence.

Students who do not use the language laboratory well for the above reasons can be helped by language laboratory style learning. The teacher/monitor can immediately identify under-achievement and establish the more obvious causes of it.

If the language level of the student doesn't match that of the material on the tape it can be beneficial to have two groupings within the class. The overburdened teacher does not need to provide new material for a second grouping. It may be sufficient to work through the tape at a slower pace with increased guidance and help with unfamiliar vocabulary. In the case of students who fail to follow instructions, reference can be made to the initial language laboratory package where type of activity, expected procedures and expected learning outcomes have been detailed. Close monitoring of individual student performance is not desirable unless a problem does arise but it is certainly possible in the language laboratory to work closely with one student without interrupting the progress of the rest of the class.

In a successful, complete language laboratory programme which complements and builds on a teaching programme, there will be a mix of self-paced student-centred learning and teacher-controlled learning, heavily weighted towards the former. Some testing situations or recording of

student responses will require full teacher control. The often neglected skill of immediate response to any foreign language stimuli can be developed and encouraged when students relinquish control over the 'record' button. Unless teacher controlled speaking tasks take place many students will prepare what they wish to say, then record it one sentence at a time, recapping and rerecording if they are not happy with what they have said. This is a common method adopted by students who prefer a passive learning style and they rarely develop an understanding of the differences between spoken and written language or the need for oral practice and constant revision so that precision and accuracy become natural and fluency increases.

Controlled, or even teacher-monitored language laboratory lessons with self-paced work do little to develop a student's sense of responsibility for his/her own learning progress. Students must be encouraged to use the language laboratory by themselves, in their own time<sup>6</sup>.

Students can be provided with a home tape and a 'homework' tape (to be submitted to the teacher). The 'homework' tape is one method of providing unobtrusive attendance motivators if it is made with interactive and communicative exercises and spaces for the students recorded answers. Such tapes could provide students with extension material and/or basic revision material with the emphasis on oral response.

The advantages would be a constant process of feedback and correction along with heightened student-centred learning, leading the way to a 'library' style learning option as they became familiar with the learning style.

The disadvantages are, as with all language laboratory work, the time it would take to develop and perfect the tapes. The preparation of special 'Test Tapes' which record the students voices on the master track of the tape and therefore allow for the marking of the tape outside the language laboratory is one option but this function of the AAC language laboratory is one which few teachers master because it is not included in initial training sessions.

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<sup>6</sup>Ideas developed from personal communication with Professor Kiyoharu Ono, Massey University.

The type of work suggested here is an 'ideal' learning situation. With commitment and vision it could be completed in teams or with the aid of paid or volunteer native speakers. Financial grants and periods of leave are often obtainable for such projects.

In the same manner and on a lesser scale, minor assessments could be completed by students in a language laboratory situation. These could be in the form of listening comprehension; describing a picture; recalling material previously learned by looking at picture/graph/table stimuli; question and answer.

Using the language laboratory in this way - giving students responsibility for the results they gain but monitoring the work output with marks and grades is an effective method of increasing language laboratory use and at the same time increasing student awareness of the language laboratory as a learning tool. It is a step towards self-access learning.

Indeed self-access or library-style learning has a large following in tertiary institutes. Using a language laboratory as a lending library is an effective method of increasing use outside of peak-times. It allows the individual student to benefit from a learning tool to the extent he/she wishes and it may help in some way to improve the quality of language laboratory learning when the class use is limited to half or one hour per week.

However, as with any type of learning which relies completely on the individual for success, few participants have the skills or learning strategies for maximum achievement. Students may spend many hours working in a way that is of no benefit to them at all unless care is taken to monitor their progress and prepare them adequately for the specialised type of learning they will be doing.

Therefore, just as effective use of the language laboratory is dependent on effective training, organisation, management and preparation, library-style learning has a similar set of requirements with an entirely different focus and content. student-centred learning is outside of the range of this research but it is inextricably linked and is part of a necessary development

when considering the future of the language laboratory and how it will be used in the 21st century.



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## Chapter 6 Conclusions & Implications

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The language laboratory is an effective learning tool. In its earliest days and its most simple design, the language laboratory was used for a variety of stimulating activities supplementing classroom study (refer Kitao 1995. 4 in this dissertation).

If certain maintenance conditions are met, the mechanical problems which plagued the recordings in the early 1950's no longer exist and with computerised language laboratories all processes have been sped up until there is instantaneous movement along a tape ribbon to find a marked place or to edit work.

We can add further technological advances to the original learning aid. Video technology, feedback machines, satellite broadcasts etc..

The role of the language laboratory is to enhance and refine, to test and develop language acquisition in learners encouraged to communicate by the meaningful materials offered to them and the way those materials are managed. The language laboratory must be used in combination with classroom study and other learning tools because it can significantly increase the intensity of individual practice and the exposure to cultural ideas already taking place in a controlled classroom situation.

**The language laboratory equipment produces a learning environment which:**

- requires each student to speak and increases the intensity of that speech;

- removes the students from the temptation to use non-target-language with their peers;
- allows for pair work and communication with others.

**The material fed into the language laboratory:**

- can stimulate the students to seek further information from their peers;
- can stimulate the students to solve problems with real interest and application;
- can provide practice and extension of ideas or points of grammar already learned;
- can provide a variety of materials from a variety of speakers for intense listening practice;
- can provide suggestions for improved student learning strategies.

**The teacher present in the language laboratory:**

- can monitor students work in detail. This fact alone is very valuable and virtually impossible in a noisy classroom when all individuals are speaking or small group or pair work is taking place;
- can keep a check on progress in pronunciation and language ability and can keep a record of this progress on stored tapes , videos etc.;
- can counsel and help individuals without interrupting the flow of the lesson.

The teacher can, and in most tertiary institutes does, increase the classroom language ratio by making use of the language laboratory.

Language laboratories in New Zealand range from simple listening posts through various models of Tandberg and Sony equipment rarely less than ten years old, to language laboratory housings updated to hold full computer systems. None that I have seen have a 'humanistic atmosphere'. All are merely functional, although the rooms are carpeted and soft straight-backed chairs are provided.

The perfect multimedia language laboratory to suit an era of technological change does exist. It is unrelated to the above unplanned products of internal change existing in most New Zealand institutes.

The room design of the 'ideal' multimedia centre is, according to Kazunori Nozawa (1994:29) of the Toyohashi University of Technology, where this centre exists,

"fresh and innovative" and has a "clear space in the room...for physical activities such as small group work."

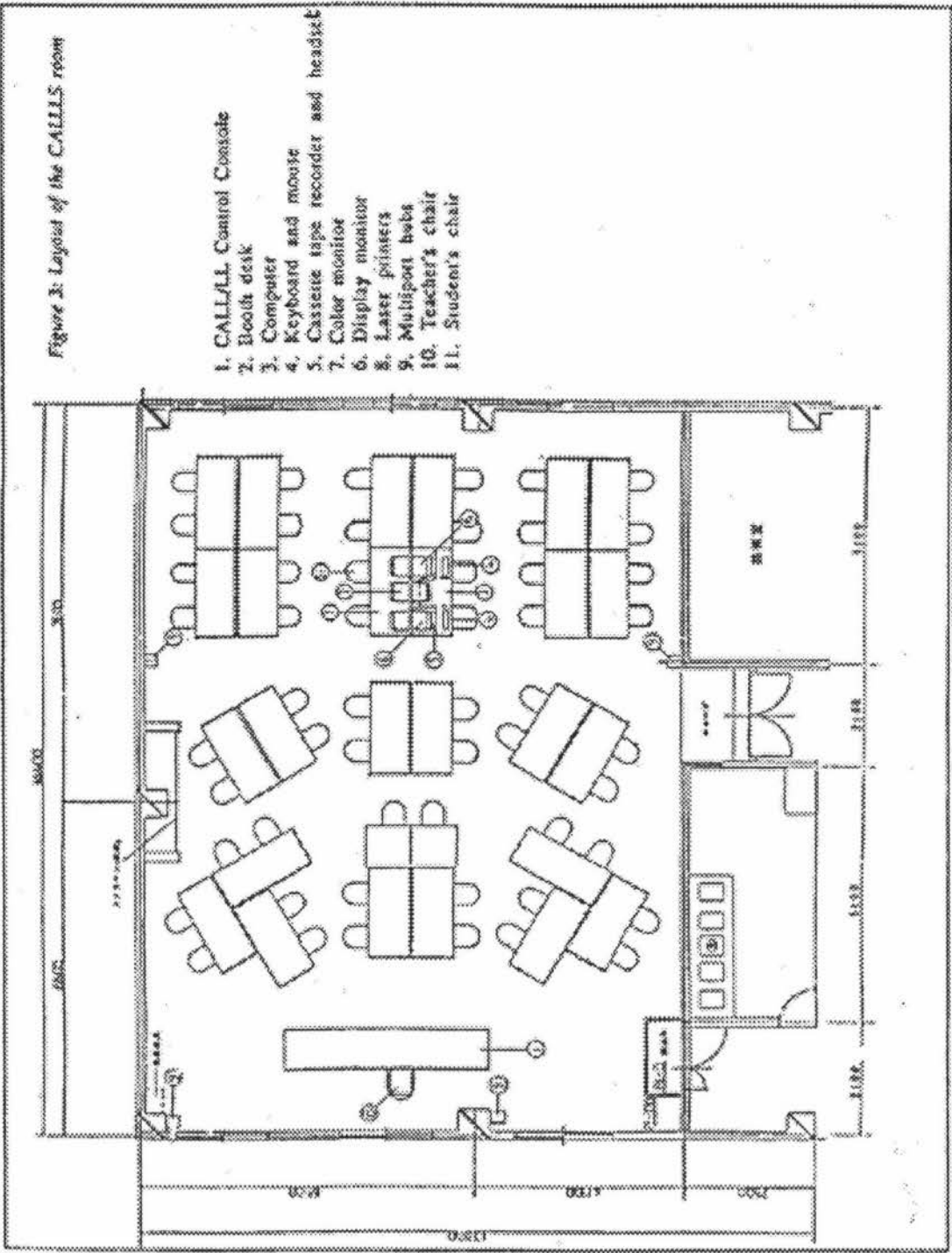


Figure 40: Multimedia Centre Design

The equipment consists of:

- (i) a computer set with two 14 inch and colour monitors for the teacher;
- (ii) 54 computer sets with 14 inch colour monitors for the students;
- (iii) a set of local area network (LAN) system (a server, one 17 inch monitor, one electricity backup, one 5.25 inch MO disk drive with a set of system LAN software and 27 RGB monitors for the students);
- (iv) a set of peripherals (an A4 colour laser printer and an A4 size colour image scanner for the teacher, Five A4 size laser printers for the students);
- (v) application software including 55 sets of Quickmail;
- (vi) a set of LL control console that has instructions in Japanese and English and interactive communication and random access functions with NTSC/PAL colour style VHS and 8mm videos, four 4 track two channel stereo cassette tape-recorders, a NTSC colour style LD player and projection panel, one NTSC colour 9 inch monitor and a video caption;
- (vii) 54 sets of LL equipment for the students (desks and monitors are 27 sets);
- (viii) additional LL related equipment (an audio mixer, four loud speakers, and a stereo amplifier);

To set up the above centre it would cost approx. New Zealand \$1.8 million dollars. Is \$1.8 million the boost to a wasted and neglected language learning resource that we need in all New Zealand tertiary institutes?

It certainly is a very well-planned and ideal long-range future picture. It shows us how future technology and the language laboratory concept can be combined in a bright multimedia future. It is not, however within the financial power of New Zealand institutes to consider the purchase and setting-up of such state of the art centres.

For New Zealand tertiary institutes the pressing need right now is to take the resources that exist and with a multifaceted plan of concerted action, work towards the above or a similar ideal

with a tight plan that has clear goals and a clear methodology. It means working with all levels of management throughout an institute to avoid ad hoc and 'double' purchase of equipment for different areas.

Working towards a future goal allows us to look more closely at factors of effective language laboratory management. We can begin to take the idea of a 'humanistic atmosphere' seriously when the existing grey walls and slightly musty smell do not signal the end point of our plan. In ten or twenty years we can assume that the language laboratory will be rehoused in another building or even replaced. If careful long-term planning and budgeting has already been set in place for this eventuality, then:

- the seating layout can effectively be changed from rows to carefully-considered groups;
- the walls can be painted restful pale (or fashionable) colours;
- the room can be wired for soft background music;
- bright posters/art works and notice boards can be added;
- the room can have its own name and logo.

Consider first the existing language laboratory and its placing in your institute.

Then consider a multimedia language laboratory called perhaps

**Leir Lowe**

**The Flame of Teaching and Learning**

To the students it would remain the already familiar 'LL'.

A simple and considered room design would be enhanced by soft colours. One-touch recorded classical music would set the mood as students settled and accessed their work.

The importance of adjoining rooms or spaces cannot be underestimated in this plan. One

door must lead to the technician's office and storage and recording rooms. This must have a separate entrance outside of the language laboratory as well. Attached to the door of the office is a clear timetable showing the whereabouts of the technician *at all times*. A further door could lead to a student self-access centre or study room. From this door students could come in and out to use a set number of booths in 'Free Study' mode without feeling constrained about disturbing the class or classes already at work in the centre. As in the Toyohashi multimedia language laboratory clear spaces need to be set aside for group work. These can be bright, comfortable and attractive.

The classroom teacher does not expect to be consulted on room design. It has long been understood that, in most institutes, finances control design-outcomes rather than the desire to build a better learning environment.

Because of this fact, the philosophies of learning and role outlines for the language laboratories that we have so carefully prepared are an insufficient tool to take us into the 21st century and to support a move to new housings for the language laboratory equipment. We must return to Eppert's (1971) 'partnership between teachers and school superiors'. Each participatory role in language laboratory related business must be very clearly defined and we should expect and demand more highly qualified and focused participants. If a language laboratory, a recording room and a computer suite are available for teacher use then these three areas should be run with a professional approach. The job description of one must apply to all three equipment areas including moving ahead with technological changes.

If, for example, the recording room is not well-run and qualified personnel are not available, then an agreement with a recording studio in the local community could be made.

This research has shown that language laboratories are ineffectively used and there is some unproven evidence that supporting facilities are not used effectively either.

The model for effective language laboratory use (page 50) must be initiated in all institutes

and highest priority must be given to the organisation of all personnel involved (including teachers) and the exact role each is to play in the co-ordinated functioning of the multimedia centre for language learning.

Policy-making concepts such as effective timetabling, effective training and effective after-hours access with centralised and clear communication between all those concerned as well as clear advertising, help and guidelines for use, available to all users, is not an unobtainable dream if an effective system is put in place with qualified and committed personnel to manage it.

The classroom teacher or programme leader faces a huge burden in time and management of the language laboratory. Suitable taped materials and software are not available with current textbooks. Any process of change should not, therefore, begin with the classroom teacher. The focus must first be on the full model for effective language laboratory use. The less effective the full organisation in any institute, the greater the burden on the classroom teacher.

Our teachers must work with passion to provide the high quality language learning environment expected in these times of global movement. Passion, however, can be wasted on spending hours correcting or making small changes on an audio tape without modern equipment or without adequate training in application of the new equipment. It can be wasted working without guidelines on making and recording materials, or working in a poorly maintained and failing language laboratory plagued with mechanical breakdowns just as the earliest language laboratories were.

The passion we have must be directed toward a wider vision of co-operative language learning. We must work with our superiors, other institutes, even with our target-language countries. This vision could not be considered when advanced learning tools and superior technology were not available. Language laboratories and those who operate them are now in limbo. Too many factors have combined to produce a situation where we proudly show our visitors the language laboratory suite in the mistaken belief that *having one* means effective language learning is taking place behind the facade.



The 40 year debate about the usefulness or otherwise of the language laboratory has finished and the task of making effective use of the sophisticated resources available to us has begun. The introduction of superior systems which reflect technological change must be carefully planned with the philosophy of language laboratory use clearly in mind or some of the benefits gained from intensive work with audio tapes may be lost. If the language laboratory is managed, not by a single technician or a group of teachers, but by a network of trained personnel, with clearly defined complementary roles, then the process of revision and change may be shortened. It is imperative that community and institute-wide resource-sharing and co-operation take place or the language laboratory will always remain the sole property of the language teacher and will be separate even from the computer laboratory situated on the other side of the corridor not four metres away. The move towards more effective use of language laboratories in New Zealand tertiary institutes must not stop with a single model of effective use set down on paper. Policy makers must be forward looking and innovative, guiding talented staff members toward co-ordinated application for financial grants and resource development positions. Perhaps when this is taking place we will begin to see dialogue featuring the language laboratory and the multimedia centre in New Zealand-based publications and much needed research on the value of modern tools of learning will be encouraged.

The research question put forward in this paper was: How effective is language laboratory use in New Zealand tertiary institutes today?

It seemed worthwhile to research language laboratory use (i) for personal reasons, as I wished to restructure Japanese language courses with greater emphasis on oral and aural skills-development and this involved increased use of the language laboratory in combination with classroom learning and (ii) to encourage public interest in the role of the language laboratory as New Zealand faces the difficult changeover time where increasingly fast technological changes offer institutes many choices of effective learning aids. In particular the role of the language laboratory as part of a digital and multimedia future should be of interest to all educators.

I surveyed a sample of universities and technical institutes throughout New Zealand on four

main areas of language laboratory use: Training, Preparation of Materials, Organisation and Management, Integration with the Teaching Programme. The questions under each of these headings provided answers to the six issues I had isolated as being of importance:

- (i) Our ability to use the language laboratory to its full extent.
- (ii) Our ability to effectively manage the language laboratory so that its importance to learning can be realised.
- (iii) Our ability to keep pace with the changing nature of language teaching.
- (iv) Our awareness of the value of the language laboratory as a learning aid.
- (v) The importance of the language laboratory to our teaching programmes.
- (vi) Self-paced, student-centred learning versus teacher control.

The results of the survey clearly revealed widespread ineffective use of the language laboratory as well as ignorance of its wider function in an institute. It was necessary at this stage to discuss the factors necessary for improved language laboratory management and use.

The model of effective language laboratory use (page 50) set out areas that make up the 'wider picture' of language laboratory technology and suggested a method of general organisation. The base plan identifies areas such as 'Future Planning' and 'Research' in which it would be appropriate to make decisions about the future of the language laboratory technology. Suggestions for further research arising from this dissertation are:

- Methods of keeping student's oral presentation skills at a high level while waiting for the link between the present effective language laboratory and a fully interactive digital future where computers can recognise human speech and provide intelligent conversational interactions.
- Observation of students at work in the 'effective' language laboratory: attitudes to their work, quality use of time, amount of oral interaction (with peers and/or with material on tapes)
- Development of learning strategies which will encourage improved student application in the language laboratory as compared to strategies needed for

classroom study.

- A research base which defines the training needs of staff as the increased speed of technological change impacts on classroom teaching in all areas from Xerox copiers to computers used for administration purposes.
- A general guide needs to be developed on preparation of teaching ideas. This should include many 'creative' ideas with full detail on how well they were accepted in the language laboratory, whether they suited different groups and what changes could be and were made to each idea to suit different teaching conditions.

# *Appendices*

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# Appendix 1: Survey Question Sheet

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## Factors Contributing to Effective Language Laboratory Use Survey Question Sheet

All questions are to be answered by the person surveyed. Information for the answers may be provided by other staff members or by students.

The questions are divided into three Parts

- Part I Questions on *Training* (in language laboratory use and administration)
- Part II Questions on *Preparation* ( of material for use in the language laboratory)
- Part III Questions on *Organisation* and *Management* of the language laboratory
- Part IV Questions on *Integration* with classroom programme

The Language Laboratory (LL) referred to, covers machinery designed to facilitate listen, respond and record activity as an aid to foreign language learning.

As detailed by Rivers (1981) a Language Laboratory may be any one of the following:

- Level 1 - Listen-Respond Laboratory.  
This is a single tape-recorder with amplification. It may have the following refinements:
  - 1) an accoustically treated room
  - 2) headphones plugged into the recorder
- Level 2 - Audio Active Listen Respond Laboratory with Activated Headphones  
This has the addition of a microphone and activated headphones for each student. It may have the following refinements:
  - 1) tape-recorders installed in separate acoustically treated booths
  - 2) wiring of main console so group conferencing and recording of individual programmes can take place
- Level 3 - Audio Active Comparative Listen-Respond-Compare Laboratory  
This has the addition of individual recording facilities (dual track tape-recorders). It may have the following refinement:
  - 1) starting and stopping of all recorders can be actioned from the console
- Level 4 - Multimedia Computerised Laboratory  
This is a full feature AAC language laboratory which can expand to a multimedia resource. A wide variety of multimedia functions such as computers, telephone dialling, individually monitored videos etc. can be wired into the existing equipment.

# Appendix 2: Questionnaire Master

## Part I : Questions on Training

1. In your institute is there any training for teaching staff in the use of LL functions?

Yes ☐

No ☐

Go straight to Question 6

2. Who conducts the training?

The company supplying the LL ☐

The technician ☐

The LL Director/co-ordinator ☐

Fellow Tutors ☐

Administrative Staff member ☐

Other (please explain) ☐

3. Is training in the use of LL functions

optional ☐

compulsory ☐

Go straight to Question 5

4. (Answer only if the training is optional) Have you personally taken up the offer?

Yes ☐

No ☐

5. What form does the training (optional or compulsory) take?

oral explanation of functions	<input type="checkbox"/>	_____
oral explanation of functions with written follow-up	<input type="checkbox"/>	_____
written explanation of functions	<input type="checkbox"/>	_____
written explanation of functions with oral follow-up	<input type="checkbox"/>	_____
other (please explain)	<input type="checkbox"/>	_____

6. Is the LL in your institute equipped with:

a user friendly instruction manual	<input type="checkbox"/>
an incomprehensible instruction manual	<input type="checkbox"/>
an instruction manual and clear instructions for tutors	<input type="checkbox"/>
no instruction manual but clear instructions for tutors	<input type="checkbox"/>
nothing at all	<input type="checkbox"/>

7. Are the tutors in your institute trained in the following LL related areas:

use of video monitors	<input type="checkbox"/>
copying of video tapes	<input type="checkbox"/>
use of cassette tape demagnetisers	<input type="checkbox"/>
use of professional recording equipment	<input type="checkbox"/>
use of computers	<input type="checkbox"/>
current language teaching methodology	<input type="checkbox"/>
editing of tapes	<input type="checkbox"/>

8. Do you know how to use:

the basic range of LL functions (manual/automatic programme transfer from master console; use of intercom)	<input type="checkbox"/>
the full range of LL functions (group conferencing; student pairing; dual tape programme transfer; recording a master tape; ad hoc programming etc.)	

☐

the basic range of LL functions plus selected other functions (please specify)

☐

9. How do you feel about actually using the LL functions you know how to use?

I am always comfortable, never uncomfortable operating the functions I know

☐

I am mostly comfortable, occasionally uncomfortable operating the functions  
know

☐

I am usually comfortable, sometimes uncomfortable operating the functions I know

☐

I am always uncomfortable operating the functions I know

☐

10. In your institute is there any training for students in the use of LL functions?

Yes ☐

No ☐

→ Go straight to  
Question 12

11. What form does the student training take?

a simple diagram of the student cassette player with labels

☐

explanations of the functions they will use throughout the course

☐

explanations and practice in the functions they will use

☐

explanations of what the LL is for (what can be achieved by its use)

☐



explanations of <u>how</u> to achieve maximum results through LL use	<input type="checkbox"/>
guidelines for taking responsibility for own learning	<input type="checkbox"/>
other (please give details)	<input type="checkbox"/>

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12. Do you feel training of staff and students in the use of LL functions is:

necessary	<input type="checkbox"/>	(please say why) _____
unnecessary	<input type="checkbox"/>	(please say why) _____
irrelevant to the type of work you do in the LL	<input type="checkbox"/>	(please say why) _____

---

13. How do you feel about the staff and student training available in your institute?

highly satisfied	<input type="checkbox"/>	(please give details if you wish) _____
satisfied	<input type="checkbox"/>	_____
dissatisfied	<input type="checkbox"/>	_____

---

Part II : Questions on Preparation

1. What language do you teach? \_\_\_\_\_
2. What level do you teach? (If more than one level choose the one which has the most LL hours and answer all questions for this part about that one level)  
(Use either Beginners, Intermediate or Advanced and specify the type of course  
Year One University, Year One Diploma Course, Beginners Evening Classes etc)
- \_\_\_\_\_

3. In the LL do you use

- |  |                          |
|--|--------------------------|
| all commercially-made tapes                                      | <input type="checkbox"/> |
| all personally made tapes  | <input type="checkbox"/> |
| mixture of commercial and personally made tapes                  | <input type="checkbox"/> |
| all spontaneous material recorded onto student tapes from source | <input type="checkbox"/> |
| other (please give details) _____                                | <input type="checkbox"/> |

4. If personally made tapes are used, are the voices recorded on the tapes:

- |  |                          |
|--|--------------------------|
| non-native speaker staff members         | <input type="checkbox"/> |
| non-native speaker outsiders (paid)      | <input type="checkbox"/> |
| non-native speaker outsiders (voluntary) | <input type="checkbox"/> |
| native speaker staff members             | <input type="checkbox"/> |
| native speaker outsiders (paid)          | <input type="checkbox"/> |
| native speaker outsiders (voluntary)     | <input type="checkbox"/> |

5. How much time on average would you spend preparing for each LL session?

For a \_\_\_\_\_ minute session in the LL, I spend (on average)  
\_\_\_\_\_ hours \_\_\_\_\_ minutes preparation.

( include making material, organising tapes etc., reading over material and any other form of preparation you do)

6. Is there a difference between the time spent preparing a classroom lesson and that spent preparing a LL lesson?

Yes, I spend more time on classroom lesson preparation

☐

Yes, I spend more time on LL lesson preparation

☐

No, I spend about the same amount of time for each

☐

7. Is the prepared LL material :

used by all students simultaneously

☐

for individual (library-style) use

☐

different material for 2 or more groups within the class

☐

a mixture of the above (please give details)

☐

other

☐

8. Does your prepared LL material contain:

music

☐

instructions for the students

☐

jokes

☐

personal references to individual students

☐

songs

☐

one type of activity (e.g. only drills or only listening comprehension)

☐

more than one type of activity

☐

learning outcomes for that particular lesson

☐

material which does not require the use of headphones and recorders

☐

9. What activities take place in your LL sessions?

listen/speak drills	<input type="checkbox"/>
listen /write problem-solving	<input type="checkbox"/>
listen/repeat exercises	<input type="checkbox"/>
listen/speak answering questions	<input type="checkbox"/>
listen/write answering questions	<input type="checkbox"/>
listen /speak interpreting	<input type="checkbox"/>
listen/write information gathering, sorting	<input type="checkbox"/>
listen/speak information giving	<input type="checkbox"/>
listen/discuss group problem-solving	<input type="checkbox"/>
listen /speak reporting information to others	<input type="checkbox"/>
look/write answering questions about videos	<input type="checkbox"/>
look/speak discussing culture with video stimulus	<input type="checkbox"/>
other (please give details) _____	<input type="checkbox"/>

10. How do you feel about the materials you are currently using in the LL?

highly satisfied	<input type="checkbox"/>	(please give details if you wish) _____
satisfied	<input type="checkbox"/>	_____
dissatisfied	<input type="checkbox"/>	_____

11. What factors do you feel are necessary for improved LL material design in your institute?

more time for preparation	<input type="checkbox"/>
more native speaker help	<input type="checkbox"/>
more outside help and advice	<input type="checkbox"/>
more guidelines on what can be done in the LL	<input type="checkbox"/>
more knowledge of current trends	<input type="checkbox"/>
more training in use of various LL functions	<input type="checkbox"/>
other	<input type="checkbox"/>

Part III: Questions on Organisation and Management

1. Is there an overall policy/descriptor or other form of outline for LL use in your institute?

Yes☐

No☐

→ Go straight to Question 3

↓

2. Who provides the outline?

an individual tutor

a group of tutors

the LL director/co-ordinator/committee

the technician

the Programme Leader/ Head of Dept

someone outside the institute

other (please give details) \_\_\_\_\_

\_\_\_\_\_

☐  
☐  
☐  
☐  
☐  
☐  
☐

3. Prerecorded tapes (on a take home tape exchange basis)  
(answer only if this applies to your course)

Who	LL director	tech-nician	tutors	stu-dents	no-one	other
purchases blank student tapes						
rewinds student tapes each week						
demagnetizes student tapes each week						
makes/chooses materials						
records material onto student tapes						
checks tapes have been recorded						
collects tapes from students each week						
labels the students tapes						
distributes tapes to students each week						

4. Material recorded onto LL cassettes during LL session  
(answer only if this applies to your course)

Who:	LL di- rector	tech- nician	tutors	stu- dents	no- one	other
purchases blank master tapes						
chooses material to be recorded						
records material onto master tapes						
collects master tape and takes it to LL						
transfers material onto cassettes						
organises storage of used master						
makes copies of master tape						
labels the tapes						

5. How do you feel about the above division of roles (in Questions 3 and 4)?

highly satisfied	<input type="checkbox"/>
satisfied	<input type="checkbox"/>
dissatisfied	<input type="checkbox"/>

6. Do you, or others in your institute use any student LL attendance 'motivators'?

compulsory attendance	<input type="checkbox"/>
grades awarded for LL work	<input type="checkbox"/>
grades awarded for LL attendance	<input type="checkbox"/>
attendance checks (roll/name list)	<input type="checkbox"/>
other (please explain) _____	<input type="checkbox"/>
_____	

7. Please give details of how much time your classes spend in the LL:

same use	mins per day	days per week
varied use (give average)	mins per day	days per week (on a booking system)
varied use (give average)	mins per day	days per week (individual programmes)
other	<hr/>	

8. Is the LL available to individual students after-hours (i.e. outside of scheduled LL time)?

yes	<input type="checkbox"/>
no	<input type="checkbox"/>
unsure	<input type="checkbox"/>

Part IV: Questions on Integration with Classroom Programme

1. Which of the following activities are best suited for which place, in your opinion

	class room	LL	either
presentation of new material			
grammar drilling			
pair work (role play etc.)			
listening exercises			
explanation of grammar			
communicative group and pair activities			
group discussion/debate			
interpreting/translation practice			
essay writing			
other activities you do (please give details)			

2. Is the material you use in the LL

- the same (textbook/handouts) as you use in the classroom☐
- different (textbook/handouts) from that used in the classroom☐
- generally the same (textbook/handouts) but sometimes a different type of exercise☐
- the same (textbook/ but a different type of exercise☐

3. If your LL sessions were stopped how would this influence your programme?

- It would have a very positive effect☐
- It would have a positive effect☐
- It would not have any effect☐
- It would have a negative effect☐
- It would have a very negative effect☐



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