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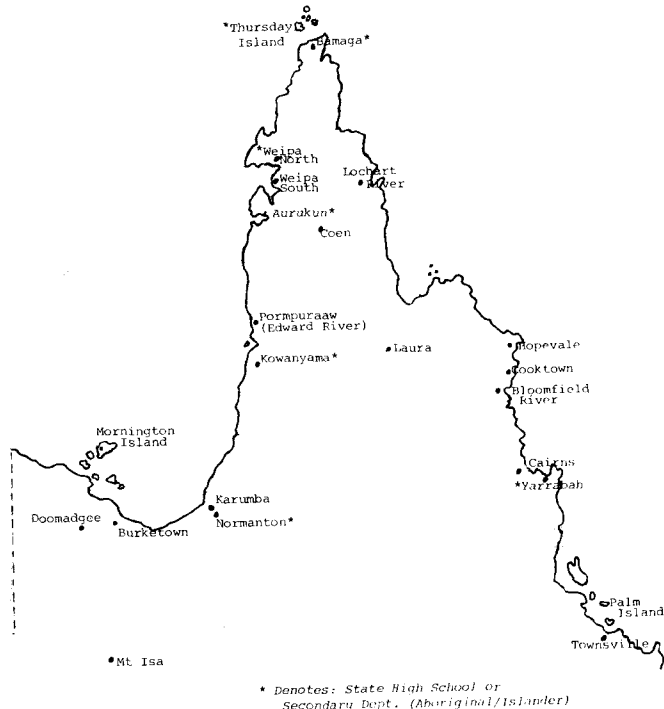
ACROSS AUSTRALIA.....

FROM TEACHER TO TEACHER

MANUAL ARTS PROGRAMS AND GRAPHICS TEACHING IN ABORIGINAL/TORRES STRAIT ISLANDER HIGH SCHOOLS AND SECONDARY DEPARTMENTS IN NORTH QUEENSLAND

*N. McGarvie

These schools are generally grouped together for practical and geographical purposes, although they cover a broad spectrum from remote Community Primary Schools with Secondary Departments catering for Years 8, 9, and 10, through Aboriginal/Islander Community High Schools to Secondary Departments or High Schools in relatively remote country areas with a significant proportion of Aboriginal or Islander students. Schools included are: Aurukun, Kowanyama, Doomadgee, Mornington Island, Yarrabah, Palm Island, Thursday Island, Bamaga, Weipa North and Normanton.



* Neil McGarvie, Advisory Teacher, Aboriginal/Islander Secondary Education, Queensland Department of Education.

In July 1977 an in-service seminar was held in Cairns for the Manual Arts teachers in these schools. This followed recognition by the Secondary Inspector for Indigenous Students, the Manual Arts Inspector and the Manual Arts Advisory Teacher of a need for the teachers to pool the work being done and the strategies which had been developed, in comparative isolation, in these schools. Teachers were issued with forms to record their projects in a photographic and written format for display at the seminar.

During the course of the seminar it became apparent to the participants that the common feature with all highly successful projects was the relevance of the produced article in that particular community. This factor also had a large influence on student interest and motivation. Due to the many different historical factors associated with the various communities and areas it was found that successful projects from one area were not necessarily accepted well in other areas. As examples : Aurukun, with its history of men involved with stock work and its proximity to the water, had developed strands in the program of leatherwork and outboard motor maintenance; Domadgee showed more interest in motor mechanics; Thursday Island featured spears, nets and other fishing gear; while all centres showed more interest than mainstream schools in the free-form carving of timber.

Manual Arts in these schools have generally been tradesman entry trained teachers with a practical independence which suited them to the remote school and its particular needs. They had responded to the needs of the Communities and had their students involved in relevant projects within the workshop situation and in the wider community. Included in the out-of-classroom activities were the building of playground equipment, barbeques, fowl houses, park benches and seats, notice boards and home maintenance and tanning of hides for leather. Popular wood-bias classroom projects included :-

go-cart, free-form wood carving, colourful and useful acrylic articles, ports (suitcases), small cupboards, stools and a fishing module - construction of rod, reel, lures, gaff-hook and landing net. Poker work decoration was found to be very popular to enable students to individualise any timber projects.

Metal-bias classroom projects included electrical circuits and test-boards (matching an object with its name, or similar pairing, to light a lamp if correct), constructing tin-plate moulds for candle casting and using a metal turning lathe to make a fishing spear. A range of projects suitable for primary school students (pre-Year 8) had also been developed and these were generally of a toy-type nature,

quickly made to satisfy any non-delayed gratification characteristic in the younger children.

However, although many projects reflected the needs of the pupils and their Communities and the different learning styles being encountered, there were still many articles in school programs being made purely as a discipline to introduce the student to particular hand skills seen as necessary in traditional Manual Arts.

A general consensus was forthcoming from the seminar participants that every effort must be made to develop a range of projects, useful and desirable to the target Communities, which would attain the various behavioural objectives through intrinsic interest "ego involvement" and success experiences.

In the area of graphics or technical drawing the results, with a few exceptions, were poor. Student motivation to produce technical drawing was almost non-existent, no relevance was perceived for the subject, measurement was a large problem, and practically no students were deriving any pleasure or benefit from this area of the curriculum.

It was suggested that the model of "technical drawing", particularly from a trade-oriented education, needed to be extended to cover a wider range of graphical literacy with higher student interest. Development of a new approach to graphics was seen as a vital need.

Much discussion centred around different learning styles and characteristics of the students and the need for teachers to be aware of these, to develop strategies to "key-in" to them and build on them. Most important was the need for the child to be able to relate to the teacher, to the workshop surroundings, and to the actual work produced in a real, warm manner. The practice of taking photographs of the student with his work and encouraging students to decorate their workshop surroundings by painting, etc., and thus to feel part of both, were strategies noted as having been successful. Teacher attitude and the level of expectation the teacher held for the students (and the Community generally) were also noted as being of great importance and effect. The valuable contribution made by teaching aides from the local Community in the areas of communication, class control, and the sensitization of the teacher was one area of significance which needed further development in some schools.

Following the 1977 Cairns seminar, a network was established in the following year encompassing all the Manual Arts staff in these northern schools. Teachers who developed, modified or discovered any

different or successful project or idea sketched it and sent it to the Manual Arts Advisory Teacher in Townsville. The project or idea was then drawn and copied and sent to all the schools. As well as successful and new ideas, this also had the effect of lessening the professional isolation of the teachers.

Over a period of two or three years a 'bank' of suitable projects was established by the above method and by schools submitting photographic records of their programs annually. The areas where most innovation appeared in the practical program was in the use of P.V.C., acrylic and acrylic mirror. The single most successful project originated in the Northern Territory Department of Education; (projects and ideas have been gathered from many states through subject associations and personal contacts) it was the P.V.C. fishing reel made on a wooden former. As most Communities are situated close to the sea or a river, the number of reels which can be made is almost limitless. Various teachers have developed the original reel to include a handle and a combined carrying and tackle box. This last unit is only made possible by the use of hot-air welding machines in these schools. Another notable and general success over all these schools has been the use of mirrored acrylic to make an infinite variety of mirrors: pocket, on a stand, mounted on cupboard doors, etc.

Further in-service seminars in Cairns in 1978 and 1979 selected the most suitable and successful projects from this 'bank' and grouped them into pre-Year 8, Year 8, Year 9, and Year 10 classifications, plus enrichment activities, such as leatherwork, used in particular schools.

The period of time which teachers spend in these schools averages about two years and the establishment of these programs has meant that more continuity is achieved, and that a teacher new to the area does have a definite program to follow.

The syllabus common to all Queensland Secondary Schools, the Board of Secondary School Studies syllabus, is also accepted as the framework for programs in these schools. Much of the program development in Manual Arts in the Community schools has been directed at development of relevant projects applicable to the local situation, which do lead students towards the stated objectives in the syllabus. Most schools, however, also have components of Manual Arts outside the syllabus which were previously taught in that particular area, which are seen by the students and the Community as being important, and have been noted earlier. So, in addition to the areas normally included in mainstream Manual Arts programs these 'local' components

are retained and encouraged - for example:

leatherwork, outboard and normal motor maintenance,
building, fishing nets, etc.

Pressure is not being exerted to drop this content, but rather to develop it, with more local involvement.

The Board of Secondary School Studies is being used as a subject framework so that the students' program of assessment is similar to that in other Queensland schools and so some comparability is established for the student wishing to attend school elsewhere. In further education away from the Community in the technical area, some boys from Bamaga have completed apprenticeships through TAFE Cairns, and one such tradesman is planning to enter the Mt Gravatt C.A.E. (Brisbane) tradesman entry Manual Arts Teacher Training. Of course, the above comments refer only to further education in the technical area; this is paralleled by students entering such institutions as the Townsville C.A.E., reflecting the steady rise in standards over all subject areas.

Although the development of the practical workshop program in Manual Arts has been steady and impressive due to the high interest and involvement of the teachers in these schools, perhaps the advances in the more abstract area of graphics or technical drawing have been more dramatic. This has been especially so in the more recently established secondary departments (e.g. Aurukun and Kowanyama, 1977, Mornington Island, 1978, etc.). Some success had been achieved in one or two of the longer established secondary schools and a program of worksheets for graphics in Years 9 and 10 had been developed and used effectively by a teacher on Thursday Island. However, the standard approach to the subject in most secondary departments had achieved less than satisfactory results.

In 1978 work was begun on a set of introductory worksheets for graphics in Year 8 in the Community schools. They were drawn by the Manual Arts Advisory Teacher Aboriginal/Islander Education in consultation and co-operation with the Manual Arts Inspector and the trialling teachers in the schools. In the first year, the sheets were used in a limited number of trial schools and produced on Fordigraph. The worksheets were corrected and modified in the first trial year from teacher feed-back and then printed by off-set press for 1979 and used in all schools. In 1979 they were converted to third-angle projection to key-in with the new Year 9 syllabus in 1981. They have gained good acceptance by teachers and students backed by good results.

Broadly, the philosophy used in the preparation of the introductory worksheets was to build on the strengths of the students to ensure they should enjoy graphics and see it as a relevant and desirable skill. Some of the strengths recognised as relevant were :-

well-developed powers of observation of the environment;
a strong sense of colour; and graphical creativity as
illustrated by the ability to sketch/draw in other than
a standard Technical Drawing style.

Other factors needing consideration in the worksheet preparation were:-

the possibility of measurement difficulty due to factors in the students' educational background (in fact, early investigation revealed a basic metric mismatch with the primary school using the centimetre as unit and manual arts using the trade system of millimetre units!); the need for concrete models of the objects being drawn (year 8 students, in concrete operations stage, have great difficulty abstracting a 2-dimensional drawing as representing a 3-dimensional object, and the presentation of the complete object suits the learning styles more than the introduction of component parts such as line by line drawing); and the need for relevant objects from the child's experience as the drawn objects.

To satisfy these various factors, the present set of 47 worksheets for each student being used in the schools is printed in a three colour format and students are encouraged to use colour on all worksheets for face and plane identification and for general decoration and embellishment.

A centimetre grid system was adopted (the centimetre being more readily imagined than a millimetre) so that students who have difficulty with measurement can also have a success experience and complete the drawing while learning the necessary measurement skills at the same time.

Models which are the same size as the drawn objects are used, complete with the centimetre grid markings, and each student is supplied with a model *in his hand* for the drawings.

About every six worksheets there is included a free-hand lining-in sheet which has dotted pictures of high interest objects - horse, crocodile, motor-bike, 4-wheel drive vehicle, aeroplane, etc.

After lining-in the students are encouraged to relax and to exercise their creativity by decorating and embellishing their drawings. Thus the rearing horse generally grows a saddle and rider plus a snake in the grass causing the rearing, and the DC3 plane is coloured in Bush Pilots Airline ensignia and with B.P.A. registration numbers.

Sketching of the regular objects drawn in isometric, oblique, perspective or orthographic views is also encouraged on plain sheets. Sketching is not considered an 'introductory soft option' but a necessary course objective.

This introductory program is now serving as a good introduction for Year 8 students who will move into Year 9 to do the related/workshop graphics offered in the new Queensland syllabus. Also, with some supplementary work in second semester Year 8 in areas such as plane geometry, constructions, etc., it is a satisfactory introduction for students planning to progress to a standard graphics course. The worksheets cover pictorial views, orthographic projection, simple 2-point perspective, lay-out and roll-out development, and sketching.

Perhaps the most significant feature of this continuing program development is that it has been done on a regional basis, using the expertise and experience of teachers who have met with success in these schools. The entire program of development has illustrated to these teachers the difference between the Communities, but it has also developed an appreciation of the common features and needs they do have and the real possibilities of learning from others in the area.

The practical input from teachers, teacher aides, and Education Department personnel has been complemented by advice and guidance from many other sources, for example, Aboriginal Studies staff at Townsville C.A.E and interstate Aboriginal Education staff (particularly the Northern Territory.)

One over-riding factor aiding the success of the developing program both in the practical and graphical areas has been the steady improvement of facilities supplied by the State Education Department for these schools.

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