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ABSTRACT

This paper reviews and analyzes the research in rural education in Australia in recent decades. Research undertaken in other countries is examined where comparisons, differences, or explanations are useful in understanding the Australian context. Following an introduction to the Australian education system and summaries of demographic features of rural areas and schools, key concepts emerging from the literature are discussed. These concepts include rurality, isolation and remoteness, rural education, and distance education. The literature review is structured around four major themes. The theme of schooling covers teachers (recruitment, retention, training for rural areas, and affective factors); students (achievement, dropout rate, and education of minority groups); school-community relationships (community participation, school closing, school size, rural lifestyle, and rural school characteristics); and accommodation of rural students in boarding schools. Theme 2, technology, covers geographic isolation, technological innovation, and distance education. Theme 3, educational delivery, encompasses equal educational opportunity, curriculum, decentralization, service delivery, and educational models. Theme 4 examines distinctions between rural education and education in rural areas. This paper concludes with 23 research questions. Recommended research priorities are rural definition, teacher preparation, curriculum design, community participation, access to services, secondary education for isolated students, and educational provision to facilitate gender and cultural equity. Contains over 200 references. (SV)

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# PART I

## "THINK TANK" INTRODUCTORY PAPER

### STEVE CLARK

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# RURAL EDUCATION - THE STATE OF THE ART

## INTRODUCTION

In the beginning there was quantity. *The Public Schools Act* of 1866 promulgated government concern for the education of all children in New South Wales (Turney, 1980). A century later, and still relevant today, Francis Keppel (1966) named the first revolution in education — the revolution of quantity. 'Everyone was to be provided the chance for an education of some sort' (cited in Darnell, 1981). That revolution, in Australia today, is almost complete. It was typified by the establishment of one teacher schools in the first decades of the twentieth century catering for as few as six pupils in South Australia to at least ten in Queensland and to as many as forty in Western Australia (Browne, 1927).

*...most of the states expressed a rather complacent pride in the one teacher school ... (which) have made and continue to make an important quantitative contribution to the education of children in remote districts. (Turney, 1980)*

Keppel's (1966) second revolution — equality of opportunity is not only well underway but provides the conditioned stimulus to which Departments of Education and researchers continue to respond. In Australia, historically, that response has been twofold: the consolidation of small schools and the provision of correspondence tuition.

Although New South Wales began to consolidate as early as 1903 the other states were cautious of the costs involved in daily conveyancing (Turney, 1980). By 1930 the movement had gained in acceptance. 'It was based on the conviction that the educational, material and social advantages offered by the consolidated school outweighed the benefits obtainable in the small district school.' (MacLaine, 1973 cited in Turney, 1980)

Correspondence tuition was made available to children who lived in places inaccessible to school facilities. Its introduction is attributed to S.H. Smith who in 1916 began formal and official correspondence education of primary children (Campbell, 1967 cited in Turney, 1980).

*In countries of the western world the revolution for the concept of equality of opportunity has successfully neared conclusion. Equality of opportunity comes close to being a universally accepted concept, even though definitions may still vary and problems of implementation persist. (Darnell, 1981, p36)*

The next turn of the wheel according to Keppel (1966) would be a revolution in quality. The types of questions asked in education would change from: how many of this do we have or need; to, what do we want schools to do for our children; and, how can we develop their learning? In Australia as in other countries, educational systems, while having mechanisms for collecting and reporting quantitative educational facts, have limited mechanisms to collect information on the quality of their systems (Start, 1978).

This latest revolution can be successful contends Darnell (1981), but only if the principal stakeholders in education agree on the essential purposes of their schools, (Start, 1978) and 'if the means to achieve quality are selected, developed and deployed from the perspective of the people they are intended to serve.' (Darnell, 1981, p36).

## THE GENERIC NATURE OF RESEARCH

Keppel's quantity, equality, quality revolutions suggest the generic nature of research into education in rural areas around the globe. The Centre for Educational Research and Innovation (CERI) under the auspices of the Organization for Economic Co-operation and Development commissioned the *Basic Education and Teacher Support In Sparsely - Populated Areas (SPA)* project in 1976. In detailing the international context of the study, Maxwell (1981) wrote that,

*...there were sufficient common concerns and circumstances to justify the establishment of an international study within OECD auspices and while there were variations around the theme, there were, as well, prevailing trends and forces in OECD countries which prompted the study. (p 20.)*

The universality of the problems encountered when countries attempt to develop an education provision in rural areas, and the type of research undertaken by such countries has been observed in the literature (Meyenn, 1985; Darnell, 1981; Sher, 1981; Nachtigal, 1982; Maxwell, 1981).

It is the aim of this paper to analyse the research in rural education in Australia in recent decades. Reference is made to research undertaken in other countries where comparisons, differences or explanations are useful in understanding the Australian context. The analytical structure of the review is comprised of eleven descriptor terms which have been grouped into four themes. Each theme represents a collection of common or similar topics which have been extracted from a review of the literature. The review was based on manual searches of the Australian and Canadian Education Indexes in addition to static and on-line computer searches of the ERIC database, British Education Index, Dissertation Abstracts, CAB Abstracts, Psych. Literature database, the European Education Index and Medline. The diagram in Figure 1. below outlines the four themes and their corresponding descriptor terms.

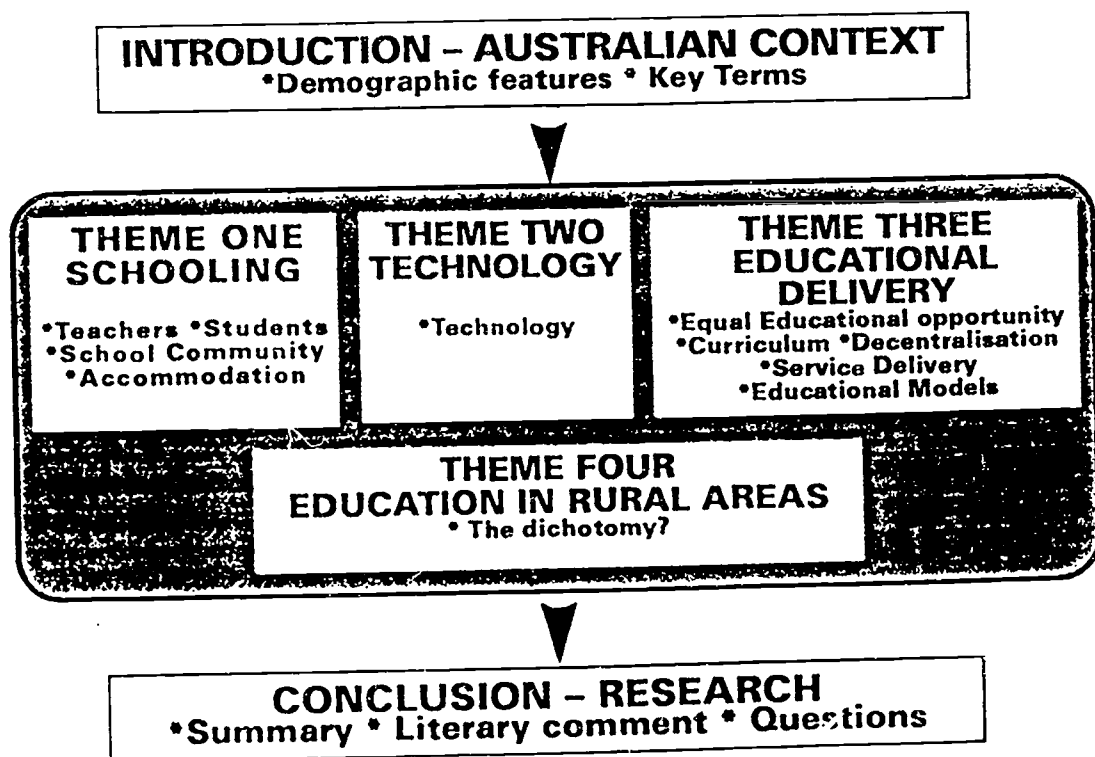
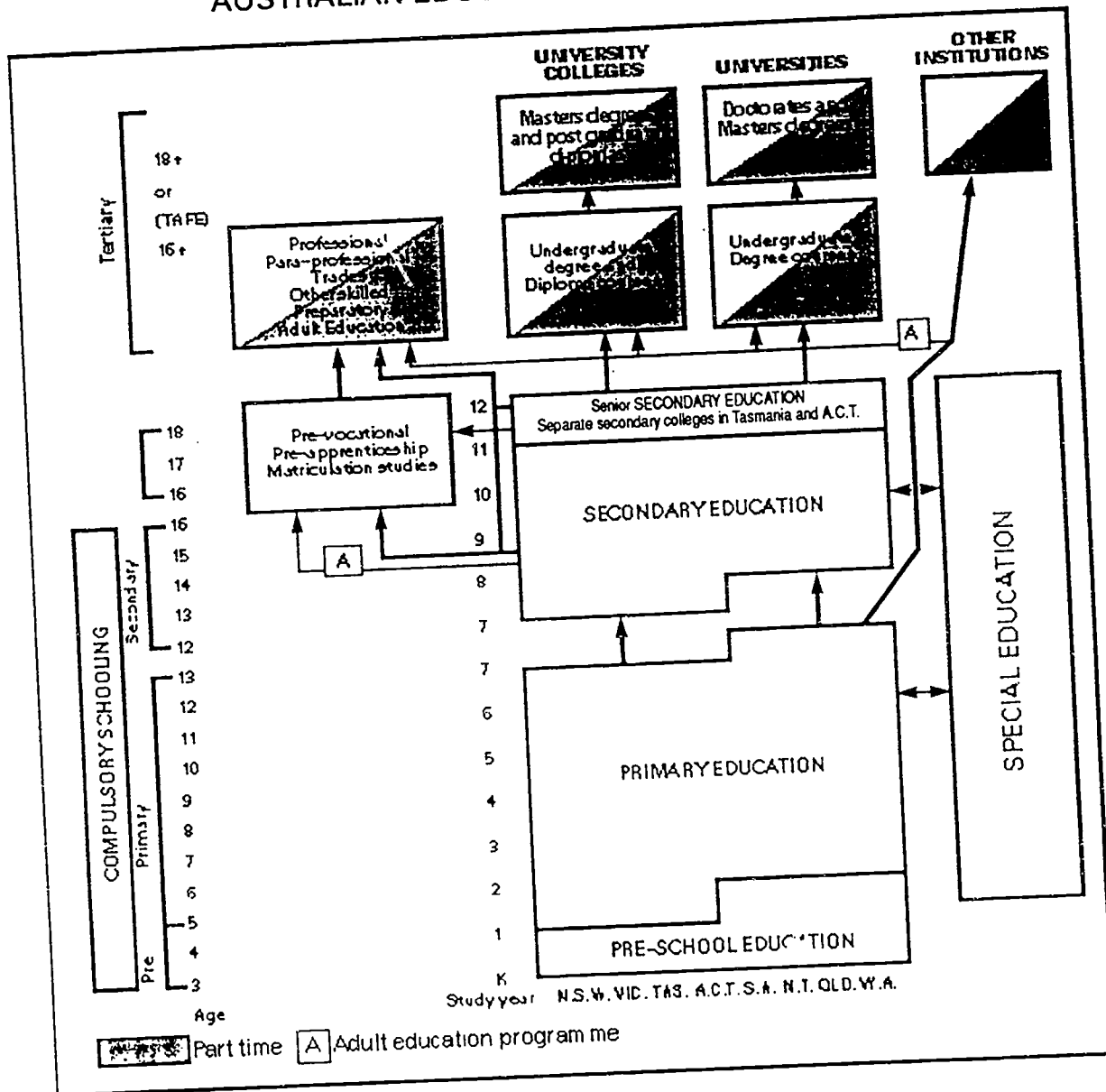


Figure 1 Structure of literature review

## THE AUSTRALIAN CONTEXT

This section is prefaced by a brief overview of the Australian Education System and relevant demographic features

### AUSTRALIAN EDUCATION SYSTEM



**Figure 2** The Australian Education System

This system as outlined in Figure 2, is complex and diverse, consisting of a series of levels that cater for different age groups (The Australian Encyclopaedia, 1988). Schooling is generally compulsory between the ages of six and fifteen years and is centred around Preschool, Primary and Secondary Institutions at different grade levels across states (Table 1. - Schooling in Australia, 1989).

**Table 1** Schooling Structure In Australia

S.A. , N.T.		N.S.W., VIC. TAS. & A.C.T.		QLD. , W.A.	
S E C O N D A R Y	YEAR 12	S E C O N D A R Y	YEAR 12	S E C O N D A R Y	YEAR 12
	YEAR 11		YEAR 11		YEAR 11
	YEAR 10		YEAR 10		YEAR 10
	YEAR 9		YEAR 9		YEAR 9
	YEAR 8		YEAR 8		YEAR 8
P R I M A R Y	YEAR 7		YEAR 7		YEAR 7
	YEAR 6		YEAR 6		YEAR 6
	YEAR 5	YEAR 5	YEAR 5		
	YEAR 4	YEAR 4	YEAR 4		
	YEAR 3	YEAR 3	YEAR 3		
	YEAR 2	YEAR 2	YEAR 2		
	YEAR 1	YEAR 1	YEAR 1		
	PRE-YEAR 1	PRE-YEAR 1			

Pre- year is called Reception in S.A.and Transition in N.T.

Pre-Year is called Kindergarten in N.S.W.and A.C.T.and Preparatory in Vic. and Tas.

Most students living in Australia progress through the 'system' of grades by either attending a government or non-government school or by the provision of correspondence lessons through a school for Distance Education. Such schools support rural and isolated families.

### Demographic Features

Latest figures available (1987) show that there are 10 000 schools in Australia with a total enrolment of over 3 million students serviced by nearly 200 000 teachers (DEET, 1989). Rural Australia, in 1986, accounted for 5400 schools and catered for 1.2 million students. At that time this represented 39% of total school enrolments (Commonwealth Gov., 1989).<sup>1</sup> In 1987 there were 2823 schools with fewer than 100 students, 45% of which enrolled fewer than 35 students (DEET, 1989). Apart from acknowledging the size of the Australian education system, it is apparent that rural schools represent a significant portion of that system.

<sup>1</sup> Definitions of rural in this context is as provided by CSC, 1987.

Rural - urban population migration occurs on an Intra-state and Inter-state level. The Impact on rural economies and the Implications for the provision of education are closely monitored and assessed both by government officials and service organisations. Harrold and Powell's (1987) report to the Commonwealth Schools Commission provides a relevant assessment on the topic,

*...compared with earlier rural recessions such as that of the 1960's, the current rural recession has seen less migration to the cities and more Intra-regional migration ... this is because, unlike the 1960's when the cities offered good employment prospects and were the main locations for tertiary education facilities, In the 1980's the metropolitan areas have levels of unemployment not much lower than the rural areas and educational opportunities in rural centres have increased ...the important factors that mitigate against a rapid population decline would appear to be a set of developments that give greater protection to household income, the improvement in rural economies in terms of the diversity of activity and services provided, the decline in the strength of the labour market, and a group of social and preference factors favouring a rural lifestyle. (p 29)*

Table 2. shows that,  
*...between 1976 and 1981 centres with populations of 50 000 - 99 999 experienced most growth, but that considerable growth also occurred in areas of smaller population. In contrast, population growth in centres with populations of 100 000 or more was fairly slow between 1976 and 1981. (CSC, 1987, p12).*

**Table 2**  
**Population change in settlements of various sizes in Australia, 1976-1981**

Type of settlement #	Population 1981	Percentage change 1976-1981
Rural	1 963 982	11.8*
Under 1000	447 319	13.4*
1000-2499	422 115	11.4*
2500-9999	1 003 425	11.5*
10 000-24 999	799 627	13.1*
25 000-49 999	505 761	12.0*
50 000-99 999	606 213	17.5*
100 000-249 999	681 804	5.7
250 000-499 999	681 804	3.0
500 000-999 999	258 956	6.2
1 000 000-2 999 999	2 634 191	4.0
<b>Total</b>	<b>14 576 335</b>	<b>7.6</b>

\* Above national average rate of growth # Population size categories as at 1976

Reports that the Australian rural economy performed badly during the 1980's are supported by writers in the field (Reid, 1988). Background information on the rural economy is provided by the Commonwealth Government's statement, *Economic and Rural Policy* (1986),

*...the sectors real net income is expected to be down 21%, to the second lowest level since records began in 1950-51. It looks set to fall further ... such developments come just three years after farm incomes fell to their lowest levels on record in 1982-83, as a result of drought ... many farmers have not had time to recover and now face serious financial problems. (p 6.)*

Further,

*...the difficulties are unevenly spread, and are worst in the grain, sugar, dairy, sheepmeat and some horticultural industries. Returns are more satisfactory - though by no means buoyant in the wool, beef, fishing and forestry industries. In much of Eastern Australia, however, farmers are again beginning to feel the adverse effects of dry conditions. (p 6.)*

There are no windfall solutions to current economic problems. Reid (1988) argues, 'the most promising solutions require community-wide actions to adapt to change and to exploit the creative opportunities for economic growth'. He eludes to a link between rural development and broader school responsibilities.

Such a link, between rural education and economic development, is well documented in the literature (Encyclopaedia of Educational Research, 1982; Hobbs, 1979; Rosenfeld, 1983; Sher, 1977; Warren, 1977; Randell, 1981; Brown, 1987; CSC, 1987; Meyenn, 1985; Whitfield, 1981; Brown and Maisey, 1980; Solstad, 1981). Educationally the central themes of this link are curriculum development and school - community relations. That the Country Areas Program has developed structures for a high degree of community involvement and fostered sharing networks among schools is supported by Randell (1981). However, this view may soon be modified as a result of recent developments. Mosher (1971) meanwhile, distinguishes between essentials for development and accelerators of the process.

*...only if the essentials (favourable prices, access to markets, availability of transport, extension services and research) are available to stimulate rural development do other factors, the so-called accelerators, gain in importance; and amongst these accelerators is education. (p 4361)*

The parameters of an education - economic development link may not be as clear as some would articulate.

*...It is an old and widely held belief that education can contribute to economic development but, ... neither educators nor economists have a recognized theory of how it happens. (Ranson, 1988)*

*...even in cases where a positive association is revealed, great care should be taken before imputing the notion of causality. (Colclough and Hallak, 1976)*

Although it is accepted that education in rural areas has a fundamental impact on local development, the relationship and dimensions are equivocal.



## KEY CONCEPTS EMERGING FROM THE LITERATURE

### Rurality.

*One of the most difficult tasks encountered in discussing 'non-urban' or 'rural' is that of definition ...it has different meanings when viewed historically, statistically or philosophically. (Warren, 1977, p 4.)*

Researchers have inundated the literature in support of Warren's statement (Sher, 1981; Nachtigal, 1982; The Encyclopaedia of Education, 1971; Diez Prieto, 1988; Helge, 1985; De Young, 1987; Darnell and Higgins, 1983; Tamblyn, 1975; Whitaker, 1983; Rios, 1988; Mathews and Vanden, 1986; Peters, 1983; Friedland, 1982; Luloff, 1984; Jordan and Hargrove, 1987).

Internationally, 'ruralness like beauty, lies in the eye of the beholder,' (Sher, 1981). Using population statistics, the Scandinavian countries define rural as open countryside with fewer than 200-300 residents. In France, Germany, Greece, Iceland, The Netherlands, New Zealand, the United States and Yugoslavia the number of residents increases to a range from 1000-2500. In Austria and Belgium fewer than 5000 residents define rural. While in Italy, Spain, Portugal and Switzerland the number dramatically increases to fewer than 10 000 residents. Australia and the United Kingdom use a range of criteria based on socio-economic as well as population statistics (cited in Sher, 1981).

*The obvious conclusion to be drawn here is that there is no single definition of rural or sparsely populated which is meaningful in an international context. (Sher, 1981, p 22).*

Helge (1985) goes further when she suggests that 'quality research to assess the effectiveness of rural education has been hampered by inconsistently applied definitions of rural' (p 1.). Such inconsistencies are not limited to empiricism. There are basic philosophic differences in constructing a rural definition.

Broad components of rurality have been suggested by Luloff (1984) as ecological, occupational and cultural and by Davis (1987) as social, cultural and professional. Charles (1968) and Nachtigal (1982) pertain that rurality occurs along a rural-urban continuum 'with the degree of rurality depending upon environmental, occupational and socio-cultural considerations' (Charles, 1968, p 1). The key to these distinctions seems to lie in relationships that exist between people, external conditions and the environmental context. As stated rather superficially in The Encyclopaedia of Education (1971).

*...the key to any rural-urban definition is not in numbers of people, rather, it is in relationships between people and between people and the land.*

In a more complex sociological concept of rural Whitaker (1983) maintains that conceptions of rurality are multidimensional and as such require multidimensional typologies.

Before considering several working definitions of rurality it is necessary to consider the point made by Rios (1988). She believes that defining the concept rural depends upon the background and need of the researcher be they demographers, policymakers, sociologists, journalists, legislators or educationists. Rios postulates two categories of definitions - qualitative and quantitative. (Transposing 'Australia' for 'America' provides a relevant contrast). She states,

*...agencies and researchers need quantitative measures that can be easily manipulated, sorted and compared. Others who are closely involved know that their part of rural America is qualitatively different from other rural areas.....it is difficult to capture qualitative*

measures in ways that readily translate to legislation, policy or management. Further, rural America's insistence that it is not only different, but has differences within itself, is both its strength and its weakness. The inability to present a unified, powerful rural America to legislators and other policymakers ensures that rural issues, such as education, will continue to suffer from a lack of recognition and resources (p 1.).

Australian research has tended to define rural using a variety of descriptors:- population density and distance (Scott, 1969; Dunnell, 1980); community size and degree of isolation from the sole major metropolis within a state (Lake, 1985); educational regions, population structure, ethnic groups and economic base (Duck, Webb, Cunningham & McSwan, 1988); Country Areas Program (CAP) area, distance from urban centre, economic base, employment opportunities and population density (French, 1981); Commonwealth Taxation Department zones (Brentnall and Dunlop, 1985); and by default, defining urban and therefore anything that remains as rural (Education Commission of New South Wales, 1983; Commonwealth Schools Commission, 1987).

In the Schools Commission study *Schooling in Rural Australia* (1987), Rural Australia was defined as being all of the nation excluding the greater metropolitan regions and generally areas within 50km of those regions. Figure 3. represents the demarcation lines used to distinguish metropolitan, provincial and remote areas.

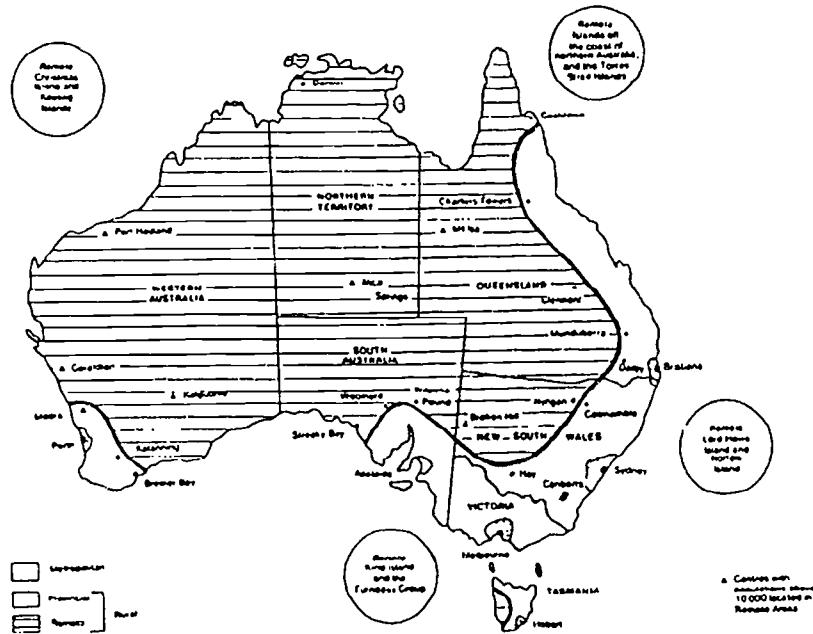


Figure 3 Definitional map of rural Australia from *Schooling in rural Australia*

It is obvious even from the few papers cited, that researchers have been idiosyncratically creative in producing functional definitions of rurality. Unfortunately differential definitions at best, make difficult any comparison of outcomes and at worst, emasculate research findings due to the inconsistencies applied when establishing frames of reference from which research is generated.

Current research by David McSwan and Jack Walton (1990) at the Rural Education Research and Development Centre may address the need for a consistent, statistically viable definition of rural Australia. Using *Schooling In Rural Australia* (1987) as a referent (Figure 3.), they have constructed a definition based on access to Higher Education facilities. Thus 'a rural student is defined as a person who,

a). *lives in the area defined by the Schools Commission (1987) as remote.*

or

b). *lives in an area defined by the Schools Commission (1987) as provincial but where post codes in the opinion of critical consultants would mean that such a student would not have daily access to a University or CAE.'*

In this definition, critical consultants refer to senior supervisors and managers of mail centres throughout Australia.

A most interesting piece of research conducted for the Country Areas Program by Griffith and Tiong (1989) also has the potential to be used as a national benchmark. They provide a modified formula using 1986 census data to define rural. 'The total population within certain specified distances from major population centres of 5 000 or more and 10 000 or more was used by applying graduated weighting factors to the population, based on these distances'. (p 2, In press)

Isolation and Remoteness. The Macquarie Dictionary (1987) defines Isolation as 'to place or set apart; so as to be alone' and remote as 'far distant in space; out of the way'. The impact of these concepts on the quality of an individual's lifestyle may not be fully comprehended unless experienced first hand. As Pearl Logan (1989) writes,

*... all of us who have lived in remote areas know the real traumas of coping with problems on our own. Isolation is not purely psychological - there are the physical elements of time and cost in trying to span long distances - with inadequate means of communication or travelling great distances on indifferent roads (p 6.).*

Pearl Logan has experienced what writers generally refer to as the multifaceted dimensions to Isolation. Some of these listed by Higgins (1985) include 'geographic, ethnic/cultural, language, social, economic, professional and exceptionality'.

In the educational research literature the terms Isolation and remoteness are interrelated such that an area defined as remote is also deemed to be geographically isolated. Remoteness is therefore defined in terms of space, time and distance while Isolation not only includes remoteness but all the other factors associated with being 'set apart'.

Remoteness is a problem unique to the provision of education in rural areas.

Rural Education. One can not define rural without rural education according to Tamblin (1975). 'They are inextricably interwoven, for those very factors which describe rurality very much determine rural education' (p 1.). One point that remains common among researchers is rural education defined as that which prevails in the area designated by their particular study as 'sparsely populated', 'rural', 'small rural', or 'remote' (Kraemer and Sturgess, 1967; Holmes, 1981). What these authors may in fact be referring to however is not rural education but education in rural areas.

Recent literature, less concerned about defining the boundaries of rural education, has concentrated on defining a rural education per se. Put succinctly, Darnell and Higgins (1983) argue that,

*... It is now recognized that education in rural areas is not a discrete object that can be labelled 'rural education'. This suggests that in the past we were deluded into looking at rural education as a single commodity and we have been seeking a single concept or principle of rural education that may be deployed unilaterally ... there is no single theory, principle, concept or notion that is universally appropriate to education in non-urban settings. (p 31.)*

The notion of a difference between 'rural education' and 'education in rural areas' will be discussed in a later section.

#### Distance Education.

*The term distance education covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefit from the planning, guidance and tuition of a tutorial organisation (Holmberg, 1977).*

In addressing both the concepts and terminology of distance education, Keegan (1980) firstly differentiates between the forms of distance education, identified by their use of technical media as the basis for the learning materials (Figure 4.). Secondly, while content with Holmberg's (1977) learner focused definition above, he lists the main elements he considers essential in composing a definition of distance education,

- the separation of teacher and learner which distinguishes it from face-to-face lecturing
- the influence of an educational organisation which distinguishes it from private study
- the use of technical media, usually print, to unite teacher and learner and carry the educational content
- the provision of two-way communication so that the student may benefit from or even initiate dialogue
- the possibility of occasional meetings for both didactic and socialisation purposes
- the participation in an industrialised form of education which, if accepted, contains the genus of radical separation of distance education from other forms. (Keegan, 1980, p 33).

For the purposes of this paper Holmberg's (1977) definition quoted at the beginning of this section is accepted.

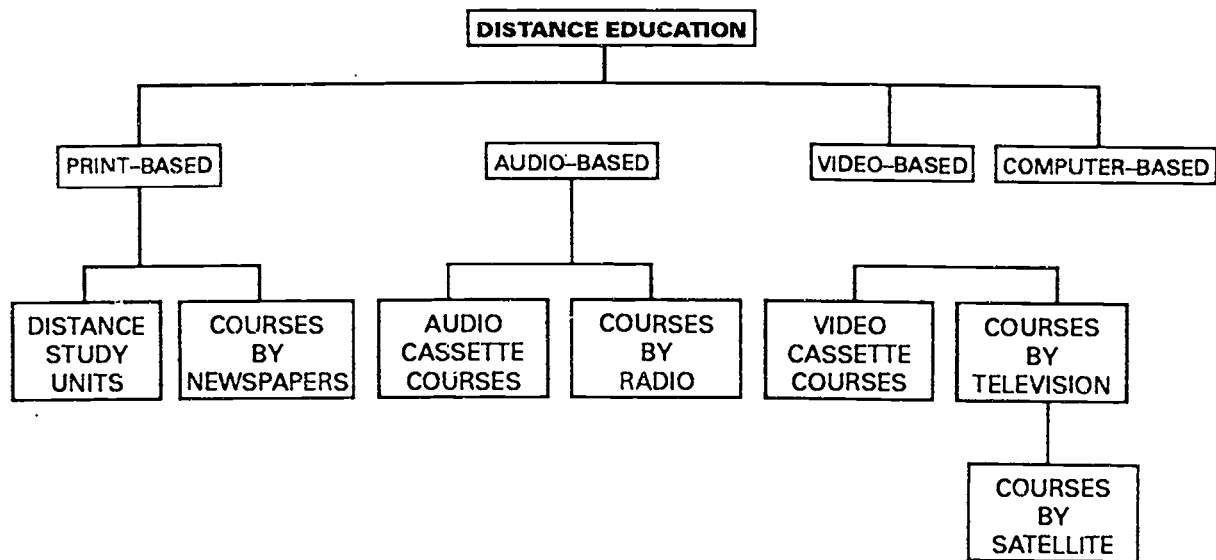


Figure 4 The forms of distance education (Keegan 1980)

This introduction has attempted to set the scene in Australian education in rural areas by briefly drawing the attention of the reader to the framework of the Australian education system set against the population distribution in rural areas. Within this context some relevant concepts associated with these areas have been explored. It would appear that further reflection is required to determine definitions which will be more useful to researchers and policymakers. What is rurality? Which geographical areas can be called rural? Is there a continuum of rurality? Should education associated with rural areas be considered under an overall heading of 'rural education' or 'education in rural areas'? Further research is also required to ascertain the appropriate extent of local school involvement in community economic development. Entrepreneurial activity by schools is not new. How this is approached in small sometimes isolated communities is a matter for discussion.

## THEME ONE: SCHOOLING

The components of this theme relate to the broad aspects of schooling provision in rural areas and include teachers, students, school - community relations and accommodation - boarding arrangements. The writer realizes that some readers may feel that this theme is too all encompassing and that it could better be served by at least two themes (for example schooling and community). The problem is acknowledged: members of the 'Think Tank' may quite well suggest some rather different treatment.

### **Teachers**

The research literature on teachers can be classified under three headings: recruitment and retention, training, and affective factors. A common feature of the literature in this area is the replication of findings and recommendations. On pedagogical grounds, researchers unequivocally share more similarities than differences.

Recruitment and Retention. The retention rate for rural teachers has historically been low (Williams and Cross 1985). Bessant (1978) labels rural teaching service an 'apprenticeship' for urban teaching. A convenient method for Education Departments to staff rural schools, Bessant says, is to follow the now established pattern of two or three years country service followed by the opportunity to return to an urban area. In Queensland, teachers in rural areas are required to serve three years in order to receive full transfer entitlements. This can mean that schools change one third of their teaching staff annually. Following the cessation of bonding student teachers, 'implicit demands that a willingness to accept country appointments should no longer be a condition of employment, continue to be made by teachers' (Connor 1973). The Karmel Committee (1971) on the other hand, supported mandatory country service to attain equal provision of teachers in areas of varying population density.

Explanations for teacher reluctance to accept rural appointments have been widespread and generally consistent. They include financial rewards and degree of support (Allred and Smith, 1984; Matthes and Carlson, 1986; Kleinfeld and McDiarmlid, 1986); limited inservice, assignment to more grade levels, lower budgets and salaries (Matthes and Carlson, 1985; Barker, 1986; Horn, 1983); greater costs of living, standards of housing, restricted access to study and social life (Muse, 1980; Deschamp and Beck, 1979; Haughey and Murphy, 1985); and minimal incentives and rewards (Reed and Busby, 1985). The single most important reason given for prospective teachers' reluctance to accept country appointments however, is the fear of isolation from family and friends in an unknown place (Watson, Hatton, Squires and Grundy, 1987; Haughey and Murphy, 1985; Deschamp and Beck, 1979; Barker, 1986; Meier and Edington, 1983; Watson, 1988). Watson *et al.* (1987) go on to add that,

*...the great majority of respondents valued the good qualities of country life - lower stress, healthier lifestyle, lower pollution, less pressure on time. But these attractions were outweighed by a desire for proximity to familiar people and places.*

Further they found that,

*...fear of isolation is sufficiently deep seated to make large numbers of young teachers accept the disadvantages of temporary appointments - no promotion or superannuation benefits - rather than risk being sent to an unknown location.*

Two models of providing teacher services to schools are postulated by Ankrah (1982). *The rural deficit model tends to encourage the use of compulsory posting and incentives (presumably to compensate for some inherent rural weakness), whereas the rural challenge model searches for better ways of preparing teachers for services in remote rural schools.* (p 1.)

Among the latter initiatives, Ankrah (1982) mentions the recruitment and preparation of local teachers. Cusak (1974) maintains potential teachers already exist among married locals and single women, only some of whom prefer to remain in large centres after training or updating.

The issue of incentives provided both to recruit and retain teachers serving in rural areas has managed to maintain momentum in educational circles, albeit slowly. Writing in the *Queensland Teachers Journal* in 1969, J.D. Storey assured members that 'the Queensland Teachers Union is at present negotiating in an effort to obtain a system of allowances commensurate with the remoteness of an area'. The *Ahern Report* on isolated children and isolated schools (1979) made a similar statement by recommending a re-examination of Education Department policy with respect to the selection of teachers for service in remote schools and the regulations governing service and conditions. Again in 1986, the *Ministerial Advisory Committee on Distance Education* recommended, among other things, an improvement in physical living characteristics, enhanced provisions for induction, pre-service sensitivity awareness, the compilation of instructional techniques and materials, and the clustering of schools to permit viable sharing of resources.

Teacher incentives remain on the rural agenda, if for no other reason, to recognize the contention that teachers provide an important element of continuity in rural schools (Howse, 1988). Perhaps in the future, teachers, schools and communities will be matched to accentuate the inherent strengths each component impinges on the rural educational milieu. Or perhaps more realistically, the complex staffing of rural schools in a centralised bureaucracy like those in the Australian States, will inevitably continue to find it difficult to respond to localised, individual levels (Meyenn, 1985).

Training. A feature in the *Melbourne Age* (1-7-86) reported Cohen (1987) as stating, *...today's students are the brightest and most talented generation ever produced and today's teachers are the most highly qualified and many of the most committed in Australia's brief history. But I believe that we have still a long way to go in providing them with adequate professional teacher education* (p 47).

The number of writers published in the field of teacher training, despite what some describe as general research paucity, attest to the belief that 'the teacher is the key to the quality of rural education' (Matthes, 1987). Most educationists would no doubt agree that Matthes quote is equally valid without the word rural (e.g., Humphreys, 1972).

The need for both pre-service and inservice specialised training for teachers, who are presently or likely to be teaching in rural areas, is well documented (Sher, 1981; Oelschlager and Guenther, 1983; Muse, 1980; Nelson, 1983; Guenther and Welble, 1983; Barker, 1986; Barker and Beckner, 1985; Massey and Crosby, 1983; Baker and Ambrose, 1985; Meier and Edington, 1983; Grippin, 1985; Amodeo, 1982; Donaldson, 1982; Horn, 1981; Lake, 1985). Collectively these papers purport that:

- a). few institutions of higher education (and less than 2% of nearly 14 000 faculty members in a Barker and Beckner, 1985 study) have programs designed specifically for rural education, and
- b). teacher training programs are unresponsive to the needs of prospective rural teachers. (Cited include unawareness of rural life, no practice teaching multi-grades, and limited curriculum adaptation).

Watson (1988) found that 88% of N.S.W. teacher graduates and 84% of W.Aust., graduates, in 1986 and 1987 respectively, received no rural component in training.

Two pieces of identified research question specialised training. Amodeo (1982), in reviewing 265 rural schools across nine American states, found 'nearly 80% of the principals and teachers had no specific preparation for rural teaching ... 41% (of whom) felt such preparation was not appropriate'. Young (1981) argues for a generic perspective,

*...If the professional life of a teacher is seen as a whole rather than piecemeal then the role of the teacher education institutions is one of induction into modes of thinking and skills without attempting to train for a 'finished product' (p 173) ... the greatest danger lies in an over emphasis upon special training for rural education to the exclusion of more general considerations which are professionally important to teachers in all areas (p 174).*

An impressive article on teacher training titled *Teacher Education as the Sabotage of Excellence in Schooling* was written by Cohen (1987) who maintains,

*...teacher education has become highly efficient in at least three ways: helping students to prepare specific lesson goals, handle traditional subjects areas and content matter and thirdly, in the use of routine teaching strategies. In certain 'training situations' this may be perceived as adequate. But for schools with characteristically wide ranging abilities, interests and talents amongst their students, teachers will want to move way beyond these teaching achievements (p 48).*

Table 3. depicts Cohen's review of six of the major teacher education emphases, and shows their total mismatch with the requirements for excellence in schooling.

**Table 3** Mismatch between major teacher education emphases and requirements for excellence in schooling (Cohen 1987)

MAJOR TEACHER EDUCATION EMPHASES	REQUIREMENTS FOR EXCELLENCE IN SCHOOLING
• Highly developed technical skills	• Teachers with well-developed humane and caring outlooks
• Subjects/contents of disciplines (3 of 4 years in most end on Dip. Ed. programs)	• Growing need for students to receive personal and pastoral care (often zero)
• Large-scale application of age/stage theories	• Teacher sensitivity to individual talents/excellence of individual children
• Compartmentalisation of curriculum into subject areas	• School-based curriculum decision-making as whole-staff, whole curriculum enterprise
• Didactic lectures dominate	• Modelling of personalised learning approaches, small group activities, negotiation and contracting of curricula
• Solely academic selection criteria.	• Increasing the need for provisions of non-academic curricula.



The threads from the teacher training section of the literature imply a pedagogical shift in emphasis. From an empathic sensitivity of student needs and an ability to contribute to the devolution of authority to schools, teacher graduates require at the minimum it seems, an awareness of the community, local expectations, and the creative adaptation of resources.

Teacher training programs designed to give non-rural students the knowledge, background, skills and attitudes necessary for successful rural teaching and living' (Williams and Cross, 1987) tend to emphasize early pre-service field experience to rural schools (Donaldson, 1982; Watson, Hatton, Squires and Grundy, 1987; Lake, 1985; Haughey and Murphy, 1984; Northern Illinois University, 1971). Programs also focus on providing information and developing personal links (Watson *et al.*, 1987; Williams and Cross, 1987; Blackwood, 1987); experience teaching multi-grade classes (Haughey and Murphy, 1984); developing students' abilities in curriculum organisation and professional ethics (Oswald, 1983); diversifying selection procedures and content areas, revamped theoretical bases, modelling individualisation and personalisation, and the development, implementation and evaluation of curriculum decision making (Cohen, 1987); and finally in accessing the experience of various stakeholder groups in rural education - parents, teachers, principals and support personnel (J.C.U. course in progress).

Affective factors. The affects (feelings, attitudes and emotions) that teachers bring to a rural school appear to be both moulded by experience and training and by the anticipations of the way they will interact in the community. Replicating a previous Sergiovanini study, Leavitt (1986) concluded that,

*...as long as a teacher experienced personal success, and was recognized for the success, he/she derived satisfaction from work (in rural schools) ... (and) the interpersonal relationship with (rural) students allowed for such feelings of personal success.*

Young teachers can sometimes be viewed negatively by the public, but when looked at objectively, benefit country schools and communities in the majority of cases (Doecke, 1987). They are often described as inexperienced, progressive in orientation, ambitious, keen and actively involved (Scott, 1969; Doecke, 1987).

In the next section the heart of education, the student, will be examined.

## **Students**

The ingredients of the literature on students include achievement, retention, and the education of minority groups.

Achievement. Twenty-one years ago Haller (1969) asserted that 'by and large, non-metropolitan people are the most poorly educated'. Comparative research on rural-urban student achievement levels has been conducted since with relatively consistent outcomes, despite considerable differences in methodology. In 1969 Scott reported that 'the rural children sampled tend to have a significantly lower mean intelligence quotient than the urban children studied'. Scott's findings are supported by Watkins (1978) who found that 'proportions of pupils with low educational attainment appear higher in rural areas'.

A body of later research in this area reports positive, minimal or no significant difference in achievement levels (Melnick, 1987; Coladarci and McIntire, 1988; Moreau, 1987; Dolly and Katz, 1986; Edington, 1979). It is fair to add that definitions of 'achievement' and the tests used to ascertain comparisons vary greatly over time. Edington and Koehler (1987) make the point,

*...current educational research efforts are examining rural/urban differences in achievement, appropriateness of rural/urban achievement measures, effects of parents and community on the attainment of rural students, and how well rural students succeed in higher education. To accurately assess the small, rural school's impact on students, rural-urban comparisons must be made on students who are matched by origin, background, and access to information. Recent composite results find little difference in the academic achievement of rural and urban students or in their desire to attend college (p 1).*

'In the final analysis the present situation is that current research is not able to prove categorically that either group achieve better results consistently' (Doecke, 1987). This may to a large extent be due to an enriched stimulation in rural areas through the media, resource provision and educational practice that twenty-one years ago was less available to rural than to urban areas.

Two factors which may contribute to achievement levels are academic learning styles and student attitude. In a study on *Learning Style Variations between Rural and Urban Students*, Cox (1988) found 'rural students scored significantly higher in serious, analytical, and active practical learning characteristics ...as well as being more observation centred and fact oriented'. To the question of attitude, Sinclair (1983) found learned helplessness and external locus of control in students in inner city and geographically isolated areas, a representation of which appears in Figure 5.

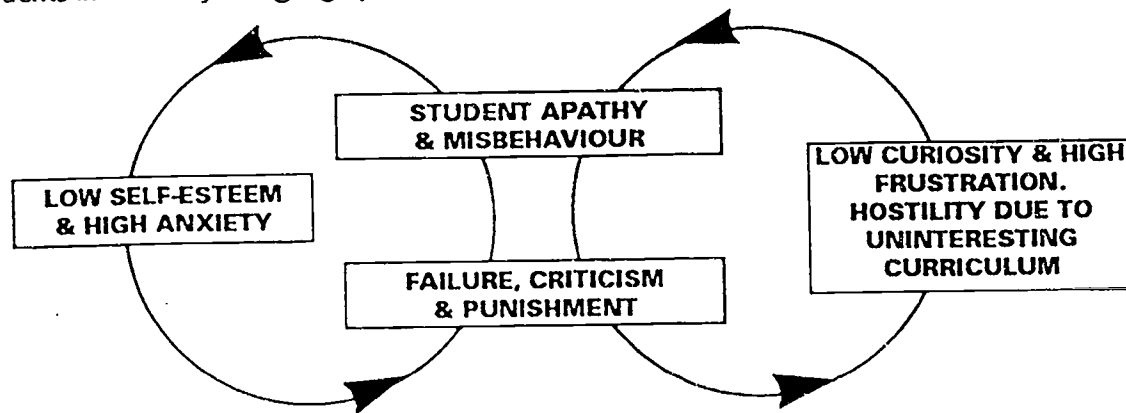


Figure 5. The cycle of learned helplessness (Sinclair 1983)

The 'learned helplessness' described by Sinclair (1983) was demonstrated by workshops conducted in two P-10 rural schools by Staunton and Clark (1988). Using repertory grid methodology a relationship was apparent between lack of student motivation to succeed and a negative mental set on the community and future aspirations. Cosby (1979) believes this negative attitude is rural pervasive and attributes negative connotations from the mass society toward anything rural, as contributing to a general negative attitude to rural areas. Future research may illuminate a form of self fulfilling prophecy on behalf of rural students somewhat akin to Sinclair's representation.

**Retention.** The retention of students from compulsory to post-compulsory secondary years has been of particular interest to Education Departments and researchers alike. Post-secondary retention has been related to parental expectations (Odell, 1988); parental expectations and peer group pressures (O'Neill, 1981); family social and economic status, ethnicity, rurality, school system, gender and family wealth (Williams, 1987); socio-economic background, family size, community origins, availability of educational facilities, birth order, sex, language, ethnicity, significant others and information access (Deosaran, 1975); family background and parental influence, educational and occupational aspirations and expectations of the student, financial and emotional costs to families, early school experiences and school offerings (CSC, 1987); and family expectations and geographic isolation (Brown, 1985).

The continuation of students from secondary to tertiary education has been discussed by Brown (1985). He refers to non-academic factors, such as the transition from a rural community to a college community, as impacting upon the rural student dropout rate. Anderson's (1974) study indicated that graduates of the smallest high schools withdrew from college in significantly greater numbers than did graduates from larger high schools. This is of particular concern in a large mining town in Queensland situated remote from centres of higher education. Of the students who gain entry to University of Queensland from this town (the furthest university from the town), a higher percentage return home after one semester, having fulfilled all course requirements, than from any other location. The university attributes this to homesickness.

Retention rates in Australia are provided by DEET (1989). Table 4. provides retention rates by sector for selected years 1971 to 1987 and includes the criterion used for calculation.

**Table 4.** Apparent retention rates by sector, selected years, 1971 to 1989 (DEET 1989)

Percentage retained to:	1971	1974	1976	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
<b>Year 10 - All schools</b>	80.8	82.1	86.6	88.8	89.4	90.5	91.4	92.9	94.3	93.8	93.8	94.1	95.2
Males	81.9	82.0	86.5	88.3	88.5	89.5	90.3	92.0	93.9	93.4	93.3	93.2	94.5
Females	79.7	82.2	86.7	89.5	90.4	91.5	92.6	93.8	94.8	94.3	94.3	95.1	95.8
Government	78.5	79.6	84.9	87.1	87.3	88.5	89.2	90.7	92.4	92.3	92.1	92.0	93.8
Non-Government	88.7	91.0	92.6	95.2	96.8	97.1	98.8	99.8	99.9	98.5	98.5	99.9	99.4
Catholic	82.4	86.0	88.9	91.5	92.9	93.5	95.3	96.1	96.5	95.5	95.8	96.3	96.3
Other	106.4	105.2	102.6	105.5	108.0	107.0	107.8	109.2	108.5	105.2	105.3	107.7	106.0
<b>Year 11 - All schools</b>	46.0	47.7	52.0	53.4	53.0	54.0	55.2	57.4	63.6	65.5	66.7	68.3	71.0
Males	49.1	48.2	51.4	51.1	50.4	50.8	51.6	54.2	61.7	63.6	64.8	65.7	68.1
Females	42.7	47.1	52.6	55.8	55.8	57.3	59.0	60.8	65.6	67.5	68.9	70.9	74.0
Government	42.1	42.8	47.5	48.8	48.0	48.7	49.7	51.6	58.3	60.6	61.7	63.2	65.9
Non-Government	59.2	64.7	67.9	69.6	70.8	72.2	73.5	76.1	79.9	80.2	81.2	82.4	85.0
Catholic	45.6	51.7	56.3	58.4	59.5	60.9	62.8	65.7	70.1	70.5	72.0	73.3	75.5
Other	96.0	100.9	100.3	100.9	101.8	104.2	102.7	104.4	105.1	104.1	103.0	103.4	106.0
<b>Year 12 - All schools</b>	30.6	32.9	34.9	35.1	34.7	34.5	34.8	36.3	40.8	45.0	46.4	48.7	53.1
Males	34.1	34.1	34.6	33.1	32.4	31.9	32.0	32.9	37.5	42.1	43.5	45.6	49.4
Females	25.9	31.6	35.3	37.3	37.2	37.3	37.8	39.9	43.9	48.0	49.5	52.1	57.0
Government	25.9	27.3	29.6	29.6	28.9	28.4	28.5	29.6	33.7	38.4	39.9	42.3	46.8
Non-Government	46.1	52.5	54.0	54.5	55.4	55.1	56.9	58.5	62.5	65.3	65.7	67.4	70.4
Catholic	33.9	39.1	41.5	43.1	44.1	44.8	45.6	47.5	51.3	54.6	55.1	57.4	60.3
Other	81.7	90.3	88.9	85.5	87.1	87.9	89.2	88.5	92.9	92.7	92.2	91.2	93.4

(a) These rates are measures of the tendency of members of student cohorts to remain in school from the first secondary year to the third last (Year 10), second last (Year 11) and final year (Year 12) of secondary schooling. To calculate the apparent retention rate, at the Australia level, of the student cohort group who are currently (1987) in Year 10 from the commencement of secondary schooling, the total number of students in Year 10 in 1987 is divided by the sum of students in Year 7 in New South Wales, Victoria, Tasmania and the Australian Capital Territory in 1983 and those students in Year 8 in Queensland, Western Australia, South Australia and the Northern Territory in 1984 (since those years represent the commencement of the secondary school system in the respective States - see page vii) and convert the resultant figure to a percentage. The retention rate thus derived is called an apparent retention rate because the method of calculation does not explicitly take account of net changes to the school population due to migration and death, nor of those students who spend more than one year in the same grade.

Queensland schools progression and retention rates were compiled by Kearney (1989). *Progression rate* relates the number of students in year level N to those in year level N-1 in the previous year while *retention rate* is a simplified method of showing the survival of a particular cohort as it progresses through its schooling. Kearney (1989) draws the following interstate conclusions,

... \* progression rates of 59% for Years 10-12 and 86% for Years 11-12 for Queensland Government schools, are second only to those of the Australian Capital Territory, for 1986-87.

\* retention rates for government and non-government schools in Queensland are first in rank for Australian States and Territories, for Year 8 to 10, second for year 8-12, and fourth for Year 8-11.

\* Queensland government schools displayed a retention rate from the first year of secondary school to Year 12 of 56% which is also second only to that of the Australian Capital Territory in 1986-87. Retention rates for all schools to Years 10, 11 and 12 at 99.1%, 73.1% and 62.5% are well above the Australian averages of 95.2%, 71% and 53.1%. (p xi).

The particular point to be made from these figures is that retention rates have increased during the last decade, and continue to do so.

Minority groups. Radford (1939) made a remarkable statement that if applied today would cause considerable turmoil in terms of service provision. He said,

*...if we take five as the starting age for Grade One and age seven in this grade as indicating retardation, 21% (of students) are to be considered retarded ..... retardation is not therefore a serious problem (p 65).*

The education of minority groups, in the literature concerning rural education, focuses predominately on the provision of services to both disabled student and aboriginal student populations. Nachtigal (1982) makes the point that 'these special populations should not be penalised for where they live'. Quoting incidence figures from 1979/80, Berry and Langford (1989) maintain that 12% of all children in Australian schools were considered disabled.

*...It is generally agreed that fully satisfactory ways to meet the needs of these students in remote areas have yet to be found ..... the principles and practices identified as the most appropriate in providing for the needs of disabled students in rural areas are also likely to apply to other special needs groups, and thus would have wide application (CSC, 1987)*

The CSC (1987) report also proposed 'that this is an area for urgent inquiry'.

### **School - Community**

The relationship of school and community is discussed under the following headings: working together, school closure, school size, rural lifestyle and rural school characteristics.

Working together. 'Community participation is important in rural education: that is, that the community has a central place in the educational decision-making process' (Listening and Responding 1984, cited in Doecke, 1987). The interaction and involvement of parents and the wider community with the local school is supported by a number of writers and institutions in various degrees. Nachtigal (1982) views the rural school and community as an integrated social structure while Whitfield (1981) and Fuller (1988) draw a link between community participation and student achievement.

*... Involvement of school with parents and community and vice versa, thereby promoting a greater total cohesiveness of intentions, attitudes and aims, benefits conventional educational performance (Whitfield, 1981).*

The Queensland Department of Education's *Working Together Kits* were introduced into schools in 1989 as recognition that 'education is a shared community responsibility and for high-quality education, all stakeholders should be actively involved in decisions about schooling' (Matheson, 1989). A process of inducting school communities into the strategies and stages inherent in successful working together relationships was undertaken across the state throughout 1989 at a Regional and District level. Similar programs have been described by Toy (1987) who sets out in his book a rationale and model plan for school - community relations.

The whole picture is not rosy however. Several authors are guarded about parent participation. In their paper on *The Lack of Parent Participation in Rural Schools*, Dolly and Page (1983) reported that most parents (in their study) refused to serve as volunteers and did not complete school based training programs. Bessant (1978) refers to local participation being confined to fund raising and Meyenn (1985) points out that,

*...if rural improvement is to be taken seriously then parent and community involvement is essential ... (but)...if decisions are required at the local level then there must be commensurate authority to make them (p 69).*

The most cynical view is espoused by Sher (1985),

*...what I have witnessed is that we professional educators want community participation as long as it remains 'manageable' (that is under our control) and so long as it furthers the programs, policies and practices we have created. Community participation most often has been used as a means to legitimate and ratify our good ideas ... we're even happy to include relatively 'safe' parents and community representatives on various committees - again so long as we professionals retain de facto power over what ends up happening ... a sense of impotence among parents and community representatives is created as a direct result of our claims as professionals to special powers that equip us to understand best what their children need and how those needs can best be satisfied ... many rural parents do not participate in school affairs either because they feel intimidated or because they see it as a sham ... the issue is not whether there should be parental participation and community involvement in the rural schooling process - I take that as a*

*given in any avowedly democratic society. The contentious issues involve the nature, area and extent of such involvement. What is the proper amount of decentralisation of authority and devolution of power to local communities in relation to the education of their children. Equally important, who is legitimately empowered to decide what amount is 'proper'? (pp. 59/60).*

According to Vaughn (1984) the responsibility for school - community relations rests with the school principal. No doubt some principals would agree. The task however, seems not to reinforce in whose office 'final' decisions are made, but to empower a representative school community committee to locate the boundaries of devolutionary decision making within the school and in the context of a large and complex interrelated school system.

School closure. 'If they close their rural schools, they close their rural communities' (Jess, 1985). Rural school closure is an enormous decision and one which engenders an emotive response from the community threatened with losing their school.

Parent opinion from the Riverina Region of New South Wales cited by Meyenn (1985) suggests 'that it is by no means automatic that rural parents want their children to attend local community schools'. Some rural parents were concerned about teacher quality and the appropriateness of the curriculum which they related to school size.

Johnston (1981) argues that 'future closures of primary schools will be much more variably argued on individual cases ... (considering) ... attitude of local public, public use of premises, and quality of relationship between school and community'.

The importance of a lobby group to recognize rural people as a 'viable, credible, significant, vital, important and worthy minority' and to present alternatives to 'inevitable' small school closures is put forward by Baskerville (1981). He mentions the United States organisation P.U.R.E (People United for Rural Education) which is similar to the Australian I.C.P.A (Isolated Children's Parents Association).

Four conceptual frames of reference most frequently used to decide on school closure have been defined by Boyd (1987).

...I). Romantic - Traditional *reflects references to the one room school houses of long ago contrasted to the new modern, less personal buildings.*

II). Urban - Idealistic *accepts urban institutions as synonymous with progress, seeing smaller schools as obstacles.*

III). Rational - Technocratic *assumes a modern (larger) school would be more cost effective and reasonable.*

IV). Democratic - Localist *supports the opportunity smaller schools provide for a personalised, family-like education (p 1.)*

Boyd (1987) maintains the Rational - Technocratic argument, often reflected by administrators and government policy makers, was the most powerful and offered the prime justification for closing schools.

School size. Research on optimal school size (discussed more fully in Section 3.0) begins with the agreed premise that small schools are more expensive (per capita) to run than larger schools (Sher, 1981; Darnell and Higgins, 1983). Early research in the area according to Coladard (1983) reveals inferential errors, naivete, intellectual puritanism and rational extravagance - It focused on optimal school size and pupil achievement. While Coladard (1983) states that small is superior in terms of achievement, more recent studies show no direct correlation between enrolment size and pupil achievement (Green and Stevens, 1988; Edlington and Martellaro, 1988). Current evidence may in fact suggest that our present conceptions of optimal school size could alter due to increasingly sophisticated telecommunications and a continued educational reform movement (Swanson, 1988). The Japanese language taught from Townsville to Proserpine via interactive computer and audio transmission is evidence at hand.

Rural lifestyle. In a paper on the *Factors of Geographical Isolation Affecting People who care for Young Children*, Jeremy (1982) lists 18 characteristics of isolation.

- \* economic situation
- \* geographic location
- \* lack of education
- \* limited services
- \* poor communication
- \* lack of telephone
- \* lack of transport
- \* language and cultural barriers
- \* social situation
- \* feeling of inadequacy
- \* low self esteem
- \* lack of confidence
- \* loneliness or boredom
- \* lack of motivation
- \* no friends or relatives close by
- \* poor health
- \* climatic conditions
- \* children with special needs.

Such characteristics of a rural lifestyle, epitomize the heterogeneity of the rural milieu.

*While people in rural communities tend to be more alike than people in large cities, rural communities across the country tend to be more unlike each other than large cities across the country; therefore local conditions need to be carefully considered in all State and Federal policies (Rosenfeld, 1981, p1.)*

A major report on the needs of Inland Australia arose from the *Needs of the West Conference, 1984*. The proceedings, edited by Gregory (1987) consistently reported communication (telephone contact and the availability of technology), education (the costs and disruption to life), health and roads as the most challenging concerns of a rural lifestyle.

Rural school characteristics. When delineating the characteristics of rural schools, writers generally include the conventional strengths and weaknesses associated with being small. The assumption is always that urban schools are therefore not small or perhaps not 'as small' as those found in rural areas.

For ease of interpretation the literature based characteristics of rural schools are presented in tabular form as listed in Table 5.

**Table 5.**

**STRENGTHS**

Family like atmosphere  
 Intimate student/teacher knowledge  
 Cross age contact  
 Small class size  
 Parent/Community Involvement  
 Organisational flexibility  
 Academic progress  
 Teacher knowledge of family background  
 Curriculum relevance **Meyenn, 1985.**

Basic human relations  
 Versatile personnel  
 Pupils participate in planning  
 School integral part of community **Nachtigal, 1982**

Community education **Warren, 1977**

Models for effective schools **Barker, 1986**

Provide community stability **Sher, 1981**

Smaller school districts  
 Slower pace  
 Less pressured environment  
 Opportunities for leadership development  
 Less formal interactions among teachers, staff and community  
**Encyc. of Ed. Research, 1982**

Student self reliance encouraged  
 People share facilities and resources  
 Community share cultural activities  
 Students more receptive and responsible  
**Gilmore, 1982**

School is community focal point  
**Boylan, 1988**

**WEAKNESSES**

Restricted curriculum  
 Special needs not catered for  
 Lack of competition & Academic stimulation  
 Lack of peer stimulation  
 Poor buildings and resources  
 Multi-grade classes difficult  
 Transition to large Secondary school difficult  
 Same teacher for several years  
 Teachers lack support & professional contact **Meyenn, 1985**

Itinerant staff  
 Poor administration  
 Insufficient finance  
 Community apathy **Sasser, 1975**

Region depends on single industry  
 Students travel farther to school  
 Less vocational guidance  
 Families lower income **Hall, 1968**

Limited attitudes and aspirations  
 Pecking order for kids of nomadic professionals  
 Hidden poverty  
 Outsiders alienated  
 Few leisure activities  
 Limited job opportunities  
 Few specialist staff

No incentive for insular student to succeed  
 Limited choice of school type  
 Rapid turnover of teachers  
 Teachers varying experience **Gilmore, 1982**

Narrow range of subjects **Dengate, 1988**

Higher rate of student dropout **Davis, 1985**



Although Interpretations of such a diverse list of rural school characteristics is difficult, a common trend appears to be evident. Human resource interactions based on open communication among teachers, parents, students and the wider community are generally considered the strengths of the rural school. Limited curriculum offerings and inadequate resource provision (human and material) seem to constitute the weaknesses.

Nachtigal (1982) maintains that 'many of the deficiencies of small schools relate to size and therefore cannot be eliminated by definition. If the school cannot get bigger, it cannot get better'.

The elements listed in Table 5, form an important link in the discussion on rural education contained in Section 4.0. Do the weaknesses associated with rural schools constitute disadvantage, discrimination or difference?

### **Accommodation**

If there is a paucity of published research in rural education, the most neglected area concerns the accommodation of students in order to attend school. Discussion in this section is taken from views of the service receivers - the rural and isolated families, with particular reference to R.H. Treweeke on behalf of the Isolated Children's Parents' Association.

The ICPA was formed on 30th April, 1971 at Bourke. It now represents a large rural and isolated minority across Australia. The Association, in Oct 1971, defined an isolated child as one who for geographic reasons has not reasonable daily access to an appropriate school (Treweeke, 1977). For these students, living away from home to attend Secondary school is based on three premises:

a). primary education should be provided in the home if possible and the characteristics of secondary education away from home are accepted (not however all the associated costs) (Treweeke cited in Beevers, 1981)

b). 'parents frequently believe that schools in rural areas can not provide the cultural milieu that is to be found in most metropolitan areas' (Braggett, Hatchard and Boylan, 1988)

c). 'many mothers in the bush do not find the prospect of teaching their own children attractive, even at primary level, and the thought of continuing on to secondary too daunting to contemplate' (Treweeke, 1977).

The decision reached by families to access secondary education away from home is the first of two major choices. The second involves the form of accommodation preferred from four alternatives. Treweeke (1977) summarized these alternatives as: boarding school, setting up a second home, private board and hostels. Each has unique features appealing to parents,

*...boarding schools - offer what many consider the highest standard in pastoral care. Students attend school and live at the one institution. The major drawback is high cost.*

*second home - often involves primary children. Mother and children move to town and father remains on the property. Places great strain on marriages and is often not economically viable (700 families involving 1600 children opted for this solution in 1975).*

*private board - appears more popular in some areas. Figures are difficult to obtain.*

*hostels - constitute the major Institutional alternative to Independent Boarding Schools. Concerns exist over physical facilities, suitable staff and their motivation, and isolation from the schools they serve. Some hostels try to fulfil some educational purpose as well (Treweeke, 1977: 220-221)*

The need for educational boarding facilities can be seen to extend as far into the future as one cares to look' (Treweeke, 1977).

While parents accept the present reality of providing accommodation for secondary education, the ideal position is to have the same choice as those living in city and provincial areas - attending the local High School or paying tuition at a private school. As Treweeke (1977) concludes, 'that would have to be one of the tallest orders presented to anyone to fulfil'.

In 1990 Queensland has fifty non-government boarding schools catering for 9,360 students 80% of whom are from rural areas of Queensland and 4% are Aboriginal and Torres Strait Islanders.

In spite of Treweeke's comment parents are still faced with the prospect of having to educate their children away from home. This is becoming increasingly difficult because of the high cost involved. Governments should perhaps be provided with accurate data on boarding school costs so as to adjust allowance schemes for isolated people (McShane, 1983). Boarding school authorities are finding it increasingly difficult to operate in view of rising costs. The Commonwealth Schools Commission Study (1982) identified high wage costs as the main cause for high deficits in boarding schools.

These are significant concerns for both boarding school authorities and isolated parents.

In summarizing Theme One an analogy can be drawn between schooling and a machine. Just as the machine's operation is dependent on the function of each working part, so too is schooling dependent on teachers, students and school/community relations. Each component thus functions relative to the successful working of others. Successful schooling can only occur when teachers, students, and the community work together to ensure quality education and to continually evaluate the conditions under which quality education is deemed to flourish.

There are a number of distinctive areas in this theme which suggest the need for further research. While cross-sectional studies support pre-service teacher training in rural areas, no longitudinal research has been conducted to enable such training to be interpreted or modified. The efficacy of teacher induction programs into more isolated educational regions do not appear to have been evaluated apart from a quantitative validation of fewer requests for early transfer.

The concept of parental and community participation into school decision making has gained official status throughout the states. The time is perhaps right to now formalise the sharing of strategies that have been developed both statewide and nationally so as to avoid the duplication of unnecessary anxiety and to build on the successes of others.

## THEME TWO: TECHNOLOGY

Consider the following quotations.

*There can be instant and inexpensive inter-communication throughout the world. The libraries of the world can be brought to the remotest village, school or home. Here ends isolation, the traditional curse of rural society ...while the potential for rural revitalization is there, the realization of that potential is not inevitable (Kitchen, 1988).*

*Television, video, telephones, satellite communication, daily city newspapers to most towns in Australia, better roads, air travel and all the rest of the changes in the last 50 years, have meant that the concept of isolated people being 'isolated' in the true sense, or in the sense that they once lived in an era when the mail arrived only weekly or fortnightly, no longer stands (Doecke, 1987).*

Many people living in rural and remote places would be quick to argue that the technological potential to 'end' isolation has not come to fruition. The Principal of the Distance Education Centre in Mount Isa reports that of the 150 families enrolled with the Centre, none receive daily mail deliveries - in fact most have a weekly or ten day service. That is, weather permitting. In the wet season some families lose mail contact for up to two months. Telephone services to rural and isolated homes also misrepresents reality. Many families contend with a manual party line shared among three or four other users while others have no outside world accessibility except an atmospheric condition dependent HF radio.

The point being made is not one of technological inadequacy, mankind has developed sufficiently advanced technology, almost beyond the limits of comprehension; rather it is a complex array of variables the combined effect of which inhibit not only avant-garde innovations but the basic items of communication from reaching isolated families. Not the least of these variables is cost. In the current economic situation, many rural isolated families simply can not afford the cost of technology.

The literature on educational technology is concerned with justifying its existence, present usage, implications for development and future directions.

Hawley (1985) established that 'based on a cost per unit of gain in conceptual development, adjunct microcomputer assisted instruction was found to be more cost effective than traditional instruction'. Computers are functionally viable in word processing, which allows the fast preparation of reports and instructional materials to be distributed via modem throughout a district; in electronic mail for communication among schools and administration; for on-line cost effective discussion with educational consultants; and in enriching, maintaining and developing the learning process (Trueblood and Flanagan, 1984).

While computer competency and knowledge has been demonstrated in students (Marshall and Bannon, 1986), some educators in rural areas have been reluctant to fully grasp the computer

nettle. This may indicate that resistance to change is not only based on the need for training and support but on attitudinal factors. Archer (1988) found the impact of the computer on rural education has been rather small with most use based on the improvement of basic skills. 'They have not been used to any great extent to address the problems peculiar to rural education - isolation and small size' (p 1.). Barkers (1985) research however, argues that emerging educational technology (e.g., electronic whiteboards, satellite TV, microcomputers) can adequately meet curricular needs of smaller schools, thus combining the advantages of smallness with important breadth in curriculum possibilities (cited in DeYoung, 1987).

Programs designed to extend curricula into previously uncharted areas are often on the cutting edge of technological innovation. The Queensland School of the Air Satellite Trial set up in January 1986 at the Mount Isa School of the Air (SOTA) used audio, interactive video, and computer data transmission with learning materials specially developed for use with satellite communications technology (Fasano, Hall and Cook, 1988). The project aroused national interest. Fritsch and Kuffner (1989) discuss adapting distance education techniques for small classes using personalised computer generated letters and computer modem transfer in tutorials. Prof. Richard Smith at James Cook University is presently instigating courses to the Torres Strait using computer authorware to write courses, store on CD Rom and access using local hardware, on site tutors and interactive audio links.

Some precautionary discussion on the use of technology has been provided by Higgins (1983; 1985). He maintains that satellite communications technology has the potential to be misunderstood.

*If material transmitted reflects political and social uniformity derived from the notion that the population is homogeneous rather than material inspired by the diverse, heterogeneous population that actually comprises rural regions, satellite communications could become culturally biased and stifling rather than balanced and enriching (Higgins 1983, p 31).*

In contrast to Higgins, Hosie (1988) questions the viability of delivering education to Schools of the Air (SOTA) and Distance Education Centre (DEC) students by satellite due to the small number and particular circumstances of the students involved.

Future directions of technological innovation seem to centre around the format of delivery of technology. Australia could have its own educational television network according to Greg and Hedberg (1988). 'The network would be based on consortia of educational institutions, community groups and other agencies'. Kitchen (1988) and Higgins (1985) argue for multi-directional media control such that remote residents both have a voice in the media industry and the chance to utilize technology to educate those living elsewhere about their particular environment. Then, 'for the first time, remote residents may be in a position to make what they want to see (or at least have a choice) rather than just to receive it from elsewhere' (Higgins 1985, p 239).

The executive summary of Fasano's (1988) report on *Information Technology and Educational Services* states that,

*... the set of innovative and experimental activities in rural education stands in sharp contrast with the large scale picture ... selected programs in the report show how computers and computer based telecommunications technology is used creatively to enrich the learning environment and the educational opportunities for rural students. Costs, usually high, and lack of clarity of long term commitments on the part of education authorities emerge as important issues to consider in relation*

*to the future of these programs and their contribution to 'technology transfer' processes to main stream rural education.*

The report concluded with three recommendations that adequately summarize the Issue of technology in education in rural areas. These included,

...i). provide adequate resources to the schools and adequate knowledge and expertise to the teachers.

ii). encourage analytical and evaluation studies on the innovative and experimental programs in rural education. This will allow accurate reflections on the large investments involved in setting up activities and programs.

iii). address the 'technology transfer' issue such that feedback on innovative and experimental programs is generated and extended to the larger scale rural education (Fasano et al, 1988).

Fasano's recommendations will ensure a carefully monitored introduction of technological innovation to schools. This, however, has the potential to occur in areas represented by technologically adept administrators. If new computer and communications technology is to be widely accepted it will require either de-mystifying or else in-service education time to familiarize and train the 'technophobics' within all systems. Feedback on practical developments within schools is required on an intrastate and interstate level.

## THEME THREE: EDUCATIONAL DELIVERY.

This theme encompasses five areas: equal educational opportunity, curriculum, decentralisation, service delivery, and educational models.

### **Equal Educational Opportunity.**

A Definition. There are two typical responses to Darnell's (1981) question, "What is the purpose of equality of educational opportunity for rural residents?" The first cited by Benson (1961) is a moral justification.

*The one universally accepted criterion of a public activity is that it affords equal treatment to all. With respect to schooling, this implies that any two children of the same abilities shall receive equivalent forms of assistance in developing these abilities (p.62).*

The second response appears aligned to the first,

*Whether schools in forming communities provide an education comparable to that provided by schools in towns and cities arises from the recognition that students graduating from rural schools will be obliged to compete with those graduating from urban school if they are to obtain employment and be successful in the work they choose (Humphreys, 1971, p. 39).*

There are a number of questionable assumptions however, on which Humphreys' statement appears to be based. Is success in work contingent upon urban employment? Or worse, if students in rural areas tended to remain in rural areas, would that signify a concomitant devaluing of education in rural areas? Before such questions can be approached, it is necessary to derive a statement of equality of opportunity that is 'rural specific'. Darnell (1981) has done just that. His selection of eight concepts of equality of opportunity is listed below.

1. ...The foundation system concept requires a satisfactory minimum offering, expressed in money to be spent, which shall be guaranteed to each pupil. Many complex formulae have been derived to satisfy the feature of guarantee, but they are all based on the fundamental idea that certain minimums are essential for all, regardless of local resources.
2. The minimum-attainment concept of equality of opportunity requires that every student shall receive educational resources until he/she reaches a specified level of achievement. This approach requires greater expenditure for some students than for other.
3. The levelling concept requires that resources should be allocated in inverse proportion to the ability of each student. In effect, his approach compensates for shortcomings of some pupils and is typically provided in categorical compensatory programs. The

Australian Schools Commission adopts this approach in its disadvantaged schools program.

4. The idea of competition as an approach to equality suggests distribution of educational resources to students according to their talent. In this definition, equality is an individual focus rather than a social focus. It simply means the more able students deserve more education, regardless of wealth or parents ethnicity or location.
5. The idea of equal-dollars-per-pupil approach assumes there is no reason for one individual, rural or urban, gifted or handicapped, to be granted more resources than another. Ability is not considered a reason for differential allocation of funds.
6. The classification definition derives from the concept that specific education programs are more suitable for students with certain specified characteristics than for students without such characteristics.
7. The concept of full-opportunity assumes that students may differ in their ability to learn, and every person should be given the opportunity to develop their abilities to the fullest. In this concept the cost of every individual's education would vary.
8. The concept of fiscal neutrality requires that a student's education should not depend upon where he lives and what his parental circumstances are. Because of its should not feature this concept is sometimes called the negative definition of equal opportunity (p. 31-32).

In the Introduction to their book *Equality of Educational Opportunity*, Miller and Gordon (1974) base their assertions on the minimum attainment concept. They state that, ...where what children bring to the school is unequal, what the school puts in must be unequal and individualised to insure that what the school produces is at least equal at the basic level of achievement (p. 26).

However, because there is no single definition for rural, and because rural environments encompass different kinds of population, Darnell (1981) maintains no one concept of equality of education is suitable. His composite definition, while claiming rural specificity, is valid across all educational settings, it states:

...schools should provide the opportunity for every student to develop personal abilities to the fullest, regardless of the ability to learn, regardless of the ultimate level to be attained, regardless of where the student lives, and regardless of a person's parental circumstances (p.32).

It is clear, that the value of education does not depend on locality. By accepting equality of opportunity as meaning an equality in students to learn, it matters not whether students wish to remain in rural areas, or compete for university entry within the largest city. The school's mandate remains constant.

Sameness. The OECD, SPA project mentioned earlier in this paper,

*...drew a distinction between equality as meaning that every student should receive the same (in terms of specialised services, financial resources, curricular offerings, etc) and equality as meaning that, with the constraints of available resources, students should receive the particular opportunities and specific services they need to fully realise whatever potential they may possess (Sher, 1981, p. 18).*

Nixon (1981) labels the definition of equality as sameness, as simplistic. In the "Australian tradition of schooling, however, equality and uniformity have become synonymous" (Bessant, 1978). If this is the case "then rural schools will inevitably suffer ... because the cost of providing the same facilities to the small schools as are provided in large schools becomes prohibitive" (Meyenn, 1985).

Access to resources however is not a panacea for equality of opportunity. A number of writers report the lack of statistical relationship between per pupil expenditures and achievement (Deaton & McNamara, 1984; Humphreys, 1972; Monk, 1982). As Behrens (1978) says,

*...differences in resource provision could not explain differences in educational attainment...the differences of country students lay more deeply embedded in the social content of country areas (p. 1).*

There is no debate that rural areas are different from urban areas. How different? That is the contentious question. The point is, if they are different finances and resources ought not be distributed equally but equitably. Darnell and Higgins (1983) make the point when they say,

*...formulae designed for staffing and financing rural schools need to be weighted in a manner...that acknowledges the principle that provision of uniform and similar amounts of resources may, in fact, be to treat rural pupils unequally (p. 30).*

Within the context of Distance Education Beevers (1981) says:

*...there was an attempt to ensure that there was no disadvantage to isolated children by making them equal to children in town. Correspondence schools used it as their design principle and tried hard to ensure that isolated children were given the same as town children, that their education was equal. What ought to be established is not a policy of equality but of equivalence....Distance means difference. Isolated children are not simply the same children in a different place; they are different, and the whole design philosophy needs to be different (p. 34).*

Gender Equity. Gender equity is an area requiring more research. Few references are cited due to a paucity in the literature. Holder (1982) reports "traditional values regarding females in non



traditional skill/trade areas are highly resistant to change within rural education systems". Clarke (1984) found from his survey in Gippsland, that while girls and women in theory have access to a wide range of adult education opportunities, the major perceived barriers to participation were distance, time, child minding, transport, cost, farm routine, husbands' objections, and a lack of confidence.

Such issues need to be explored in more detail and replicated in various settings.

System Produced Change. An educational policy with the potential to develop equality of opportunity through equity is the k-10 (or P-10) policy. Boylan (1988) in his research on the provision of education in the New South Wales central school, remarked that,

*...with a flexible approach to staffing within the school, teachers with a particular curriculum expertise and interest can be used at various levels...The outcome of this flexibility and curriculum development is a well organised and structured set of learning experiences for the children as they progress through the central school (p. 44).*

Perhaps the only sure way to evaluate systems produced change is to become involved in the system. To this end, Barker (1986) suggests that rural schools be represented on task forces and study groups to insure that mandatory guidelines and requirements acknowledge and allow for differences between large city school districts and small rural ones.

### **Curriculum.**

*Half a century ago, Radford (1939) claimed:*

*...It is impossible any longer to regard the curriculum as a fixed body of information passed on by tradition and uniformly imposed on all children irrespective of geographical location and other circumstances...many students of education have been impressed by the apparent need for constant 're-discovery' and re-statement of this aim in some new form. In its laudable desire to conserve what is of permanent value in our human tradition education has a fatal capacity for adopting fixed ideas and routine methods, and thereby contact with the pulsating and developing reality of life itself (p. 5).*

Design. In Australia, curriculum design is balanced on what could be called a 'see-saw' paradigm. At one end is the centralised production of curricula and syllabi by respective State Education Departments; and on the other, local school or local area based curriculum development. Radford (1939) makes the point that the 'see-saw' should never be static but in fact be capable of re-defining the balance between centralised and local curriculum development according to location and perceived need.

The present balance in most Australian states appears to change between Primary and Secondary schooling. Primary curricular policy is distributed through Departmental syllabi which are open to adaptation and change at the school and to some extent individual teacher level. Secondary schools on the other hand, individually or in groups write a subject program proposal which is generally ratified by a Government statutory authority.

Newby (1981) remarks that,

*...underneath the assumptions of learning theory that guide syllabus design, lie certain practical assumptions about the way they will be used...*

- a) *children of similar age and level of intellectual development will be grouped within a single class.*
- b) *teachers will devise their own organisation of syllabus content to account for time allocated to subjects, individual student needs and resources available.*
- c) *teachers will provide the learning activities for their students.*
- d) *most children will complete the syllabus content for their school year in one calendar year.*

The extent to which these assumptions are fulfilled depends largely on the teacher and the support mechanisms available to the teacher. There has also been a realization in the last decade that syllabi should reflect developmental flexibility rather than a lock step system of objectives

A question of curricula and syllabi design that continues to encourage debate is the generalizability of the curriculum across urban and rural areas. Sher (1981) maintains that,

*...an urban school curriculum is not appropriate for the needs of rural students coming from small communities rather than from cities....what's more, as long as rural schools emulate an urban model of education, ...they probably will be second rate (p. 61).*

Sher (1981) lists the general features of a curriculum suited to the unique needs of remote rural communities as follows:

- i) *... strong foundation in the teaching of basic skills and essential facts;*
- ii) *an emphasis on practical skills;*
- iii) *training in self directed study and the development of initiative;*
- iv) *a focus on the community;*
- v) *an orientation to familiarize students with the outside world;*
- vi) *attention to the futures of students.*

A close inspection of these features reveals they are not as rural specific as Sher would have us believe. Urban curricula is also grounded in basic skills; it is sound pedagogy to emphasize practical, hands on vicarious learning experiences regardless of setting; self direction is fostered through process rather than product teaching; and the outside world is individually defined with regard to previous experiences. What Sher has highlighted is the need for a sufficiently flexible curriculum policy supported by quality, relevant resources, that is adaptive to local needs.

Local Relevance. What is the purpose of the curriculum in rural areas? Treweeke (1981) warns policymakers to,

*...beware of reinforcing already existing insularities. In rural towns and isolated areas there is the difficulty of reconciling conflicting curricula demands for those who wish to enter the local, generally unskilled or semi-skilled workforce, and those who wish to*

*complete tertiary training and then return to their home area or else seek employment elsewhere.*

In contrast to Treweeke's position Doecke (1987) and Meyenn (1985) argue that no such dichotomy exists.

*...education needs to begin from and relate to the experiences of the student. With that in mind then, it is difficult to argue that rural students suffer educationally as long as the education they are getting begins with and relates to their environment and experiences, provided that the education then goes beyond this experience (Doecke, 1987, p. 31).*

In order to reconcile both these positions, assumptions must be made that

a) educational resources reflect local relevance and  
b) subject offerings provide students with sufficient choice to enable future aspirations (such as local employment or tertiary preparation) to be met. On the former point, Sher (1985) maintains that,

*...any schools' curriculum is inherently reductionist. It takes the whole world of experience, of information, of reality, and winnows it down into little specialised, segmented packages. The curriculum is the education system's statement as to what is vital for young people to know to lead successful adult lives. ...looking at rural school curricula around the world I have seen that it is relatively rare for rural children to see themselves in the curriculum, or to see their parents in the curriculum, or to see their community or their economy or their values or their lifestyles reflected there (p. 57; see also Easton, 1985).*

That subject offerings are more limited in rural compared with urban secondary schools is well documented (Encyclopaedia of Educational Research, 1982; Steele, 1985; Monk, 1986; Barker, 1985).

Curriculum Challenge. It appears then, that curriculum development for education in rural areas is based on two particular factors (local relevance and subject choice) that have not as yet been fully realised. This does not mean that educational authorities are not aware of such issues. To the contrary, Departments of Education are continually refining curricula offerings to schools in order that the 'see-saw' balance between centralised and school based curriculum development is capable of addressing the demands of a changing society.

The challenge for curriculum developers, based on the principle that education in rural areas is different from education in urban areas, is to develop a curriculum that,

- acknowledges there is a difference
- supports resources, both commercial and regionally produced, that reflect the culture and lifestyle of the area in which they will be used
- extends the experiences of students beyond their local community
- explores a similar basic content to equip students to successfully function and adapt in society
- promotes the individuality of students and professionalism of

- teachers and parents to address individual needs and
- caters for the diverse range of student aspirations through an enhanced array of subject offerings (utilizing community and technological innovations).

### **Decentralisation.**

History. Since the last quarter of the nineteenth century, and especially after World War 2, the seemingly relentless concentration of population into the state capitals and provincial cities has alarmed and disappointed many Australians (The Australian Encyclopaedia, 1988). "Decentralisation is arguably the best known of the officially sponsored and popularly endorsed responses to this concern" (p. 967). Its origins can be closely traced to some of the early efforts made by Australia's colonial administrators to define the connections between rational resource management and town and regional planning, and also to the more successful popular demands throughout the nineteenth century for a more equitable disposal of the public lands (p. 967). As policy, the most obvious challenge decentralisation has always contained is the re-distribution of people and resources from a settled fringe containing the vast majority of the population to less settled inland areas.

During the 1960's and early 1970's decentralisation was accorded only secondary policy priority (p. 968). Toward the mid 1970's however, 'decentralisation became a particularly attractive slogan for the rural based members of parliament, and it became political heresy to question the economics of decentralisation' (Bessant, 1978).

Consolidated schools. The idea of using transport to consolidate small schools by bringing the pupils into larger and better equipped central schools was an educational concept born in the same era as that of decentralisation. Together both concepts form a stark contrast. Consolidation originated in 1864 in the United States but was not introduced to Australia until 1935 (Australian Encyclopaedia, 1965). It was based on a realization that central schools could provide advantages that "...were denied to small schools, namely specialized teachers, good facilities for physical education and medical treatment, more varied courses and a wider community" (p.352).

In 1968 Deetman (cited in Hind, 1981), the then Director of Education in Western Australia, explained his objective of consolidation as providing country children, apart from those in very isolated areas, with a reasonable standard of secondary education. He elucidated three phases,

- 1) close one teacher primary schools and bring children to a central point
- 2) convert the 'central' school to a junior high school
- 3) establish a separate high school at the central location.

Opponents to consolidation have become both more vocal and prolific in the last two decades. Hobbs (1981) remarks that "while consolidation significantly changed rural education it did not produce parity with urban schools". He cites Sher (1971) who said "the wave of consolidation which urbanised rural American schools was strongly encouraged by professional educators and administration often over the protests of rural communities who lost their schools in the process".

The most prominent advantage attributed to consolidation is cost effectiveness which grew from the theory of economies of scale. Sher (1981) defines economy of scale as the reduction of unit costs as size increases. This is a simple and much abused concept according to Sher because arguments for school consolidation tend to ignore or discount the reality of offsetting diseconomies of scale; that is, new or enlarged costs attributable to increased size of operations.

One of the problems in examining economies of scale according to Hind (1977) "arises from

no clear consensus as to the aims and objectives of schooling, thus rendering the measurement of educational output in any truly meaningful sense virtually impossible". Results from his research to determine the extent to which the cost per pupil of primary schooling in New South Wales varies with school size suggests,

*...maintenance costs decrease with an increase in enrolment to 200. Administration and instructional cost economies are exhausted by 100 enrolment, and diseconomies occur in both areas beyond an enrolment of 600 (p. 296).*

Hind's conclusion that in sparsely populated rural areas the economies from consolidation are rather limited, is well supported in the literature (Hind, 1981; Sher & Tompkins, 1976; Hobbs, 1981; Dunne, 1978).

Present Trends. Decentralisation continues as educational policy in Australian states. Initiatives focus on the provision of higher education courses to rural areas, the development of centres for open learning (Hedberg, 1988), and the devolution of the decision making to Regions, District and school communities.

The present reality however, remains dependent on funding. Decentralised services, regardless of the consolidation issue, tend to be expensive - according to Birks (1981), 36% more expensive for rural as against metropolitan schools (in Western Australia). It seems as long as education in rural areas is discussed in monetary terms, rural schools will be different from their urban counterparts to a greater degree than they would otherwise be.

The final point on decentralisation is left to Darnell (1981) who draws a distinction between decentralisation as a tendency and as an event,

*... decentralisation as a tendency connotes an 'allowance' of greater control bestowed upon the consumer at the pleasure of the parent agency. Decentralisation as an event connotes arrival at a specific state. The event has a defined end and a planned beginning, but the tendency has a defined beginning with no specific end other than to find that point where consumer pressure to decentralise is reduced. The granting of autonomy outright, as contrasted with the award of it in increments of indefinite size and duration, results in a different relationship between central and local rural areas. (p.35).*

### **Service Delivery**

Structure. Educational provision in Australian states is commonly based on a four tiered structure involving Head Office, Region, District and School. In recent times Departments of State Governments have undergone substantial review procedures, the results of which in Queensland precipitated an Education Department re-structure and an evaluation of the responsibilities previously associated with each tier. Predictably, personnel within Departments that undergo organisational and structural change have to adapt to new processes, directions and personalities. The results evident in this State have encompassed a growing awareness that education is a dynamic, responsive, adaptive and fluid enterprise. 'Culminating' structures can no longer afford to be rigid but must balance education tradition with a future technology. The acceptance of a corporate management philosophy among states has engendered a devolution of decision making authority to regions districts and schools.

Services to schools. Through negotiation, regions and districts facilitate services to the community that include:

- Pre-compulsory, Compulsory, and Post-compulsory Education Programs;
- Special Programs;
- Health, Welfare and Community Services; and
- Educational Administration.

Traditionally, services to schools are provided by a multiplicity of consulting groups (e.g., Guidance Officers, support teachers, therapists, gender equity, multicultural, gifted and talented, C.A.P., aboriginal/Islander, religious education, health liaison, alcohol and drugs, human relationships, road safety). It is usual that each group consults with a school community within the area of its expertise according to needs either identified by the school or through an external method of needs identification. This process, as could be reasonably assumed, is inherently capable of addressing the same need, on a number of fronts, by a variety of personnel, at either different or same day visits to a school.

An innovative method of service delivery to the school community has been adopted by one Queensland Education Region. Consulting groups are co-ordinated under a Support Service umbrella such that school communities are regarded as systems; the focus of service then becomes a systems approach to problem solving that involves consultants and school members prioritizing areas of need and then working together to effect change. Instead of a number of groups working on a number of needs, frequently replicating service, a target group of consultants and school/community members work on one need at various levels within the school structure. One important element of this approach, as Maxwell (1988) supports, is the articulation of a system's in-service offerings allowing control to rest with the school.

Training. Morrison (1985) reports that rural living produces drug abuse, domestic violence, depression and teenage pregnancy just as frequently as does urban living. Services to support schools and rural communities dealing with these problems rely on specialist personnel. A number of researchers indicate that just as teachers benefit from pre-service training in rural education, so do support personnel providing a service to rural communities (Cole & Ranken, 1981; Horner & O'Neill, 1981). In many districts throughout the country, local professional development focuses on inducting support personnel to the characteristics of the rural lifestyle and the inherent problems associated with service delivery in rural areas. These include transportation, access to other professional networks, case load, community acceptance, maintaining confidentiality and referral to other agencies.

Programs. Three programs that bring students parents and teachers together for mutual support and sharing of ideas are mentioned. The Foster Schools Support Scheme is an initiative funded under CAP. It operates in Queensland in designated PCAP (Priority Country Area Program) areas to establish networks among schools (particularly at the administrative level) for practical support and information sharing and to utilize the experience of larger school systems and of principals.

Jenner (1981) reports on the central resource service to isolated schools in the Northern Territory. The service aids in the production of local materials, prepares lists of books and films without words so that local vernacular languages can be added, and secures area material for its diverse lending library.

Multiple school camps and festivals are organised in all states providing the opportunity for students from rural areas to mix with other students, develop music, art and recreational skills, and allow teachers and parents the opportunity for professional in-service training.

Services managed and delivered from schools are highlighted in the following section.

## Models

The educational model on which education in rural areas has usually been based is labelled

the 'one best system model' (Nachtigal, 1982). It implies that the "problem with the education system are the same regardless of where the schools are located and the solutions are equally appropriate for cities and small towns" (Nachtigal, 1982, p. 21).

Tamblyn (1975) is critical of the 'one best system model' in rural areas and is succinct in identifying weaknesses when he says,

*... the inability of rural areas to support educational programs is readily reflected in their inadequate facilities and instructional materials, disproportionate numbers of unqualified teachers, high teacher turnover rates, lack of effective special services, higher drop out rates, inadequately prepared graduates, high unemployment rates and few taxable resources (Tamblyn, 1975, p. 1).*

The above thinking according to Sher (1985),

*... is the dominant view of rural schooling which leads to a deficit model that focuses on what rural schools and communities lack by comparison with metropolitan schools and that emphasises strategies to 'fill in the gaps' and to compensate for all the disadvantages! (p. 58).*

The alternative model Sher maintains,

*... can be found in a set of genuinely rural visions of education. What these visions have in common is a positive, provocative attitude toward rurality, smallness, diversity and community involvement. They see what rural schools and communities have, instead of only what they lack, where rural schools have succeeded instead of only where they have failed, and what their potential is, instead of only what their problems are (p. 58).*

A number of considerations have been outlined in the literature that, when viewed in the present context of educational provision to rural areas, provide the focus for an improved educational model. Some of these considerations are listed below:

- 1). *Any attempt to change the educational scene in rural areas, without concurrent effort to effect change in the social, economic and political areas of community life, will have very limited impact (Warren 1977, p. 6).*

- 2) *The locus of control for defining rural education problems should be returned to the community, with outside agencies playing a facilitating role not a dictating one. Also, the criteria for deciding if a problem is in fact a problem ought to be more firmly rooted in local conditions and not in a preconceived set of standards uniformly applied to all school systems regardless of size and location (Nachtigal, 1982, p. 303).*
- 3) *Community education is seen as a mechanism with great potential for revitalizing rural education and rural society (Warren, 1977, p. 7).*

Some writers focus on the program oriented components of community education - including local resource use in programs for school age children; remedial, recreational, enrichment, cultural and vocational programs in schools; adult vocational and recreational programs; the delivery and co-ordination of community services; and the promotion of community involvement (Darren, 1977; Bloomquist, 1988; Encyclopaedia of Education Research, 1982; Farley, 1980; Venn, 1967). Other writers focus on the process oriented components of community education - which include co-ordination among groups and organisations to avoid duplication of services; needs assessment of individuals and the community; mutual ideas sharing and group problem solving (Darren, 1977; Whitfield, 1981; Australian Department of Primary Industries and Energy, 1988).

- 4) *Multigrade, multicourse learning centre approaches to school organisation that decouple the course/class equation and allow small schools to offer a diverse educational programs (Sederberg, 1983).*
- 5) *The establishment of a business partnership between rural schools and the local business community (Warden, 1986) to promote school entrepreneurial endeavours.*

Such considerations, as previously stated, have the potential to improve the present urban dominated model for educational provision in rural areas. It is not suggested that policymakers should include all the above when reviewing state education structures. Collectively however, they provide the impetus for change, to extend the strengths of education in rural and isolated areas.



Theme Three encompassed a multitude of issues and concepts that surround the delivery of education to rural areas. The dominant underlying issue, that of access, although not overtly mentioned in much of the literature, is inherent in each of the descriptor terms discussed in this theme. Equal educational opportunity presumes access to education by all sectors of the community in all locations. Equity of opportunity presumes educational justice to all sectors of the community. Access to the curriculum was seen to include local relevance and the balance between centralised curriculum production and that produced within a local area. Decentralisation and service delivery provide a framework from which access to programs and services can be delivered. An educational model developed with rather than for people in rural areas ensures access to quality education.

Each of these concepts, although invariably discussed together within research articles, have tended to attract policymakers' attention independently rather than interdependently. One of the problems of decentralisation, for example, is the provision of the appropriate resource support mechanisms that local empowerment requires to meet the raised expectations of the community and school personnel. This problem in the author's opinion does not appear to have been satisfactorily solved. Further research should aim at synthesising the interrelatedness of factors such as curricula design and service delivery structures with the devolution of control. In the current climate of Departmental restructuring the opportunity for evaluative, visionary research should not be underestimated.

## THEME FOUR: RURAL EDUCATION OR EDUCATION IN RURAL AREAS

Warren (1977) posed the question, "Is there such a thing as rural education?" In 1978 Bessant followed up by asking, "Is the Australian rural community sufficiently different to warrant a different type of schooling?" Both writers would agree on the complex nature of issues surrounding such questions.

Ten years ago the literature on this topic, whether rural areas should have a discrete model of schooling (rural education) or a model grounded in general educational provision (education in rural areas) was dichotomous. Since that time educational research has tended to draw less of a distinction; rather than defend a polarised view, educationalists voice support for a generic educational model (education in rural areas) with the proviso that it incorporates many of the features one would attribute to a rural education.

It is intended to begin the discussion on this topic by examining the dichotomous viewpoint. Information has largely been extracted from two excellent articles, one by Barber, (1981) and the other a critique of Barber's work written by Evans (1981).

### Education in Rural Areas

### Rural Education

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| <p>1. A rural curriculum assumes a stable society with fixed roles and occupations. This is not the case.</p>                   | <p>1. General curriculum not appropriate for different people in different locations.</p>   |
| <p>2. Rural, urban and suburban locations are heterogeneous. Therefore need core common curriculum.</p>                         | <p>2. Differences exist between rural and urban areas, and rural and rural areas. They should be treated differently.</p>   |
| <p>3. Policymakers don't see the salvation of rural areas entirely in terms of a separate educational approach.</p>             | <p>3. Policymakers don't deny that rural/urban differences exist.</p>   |
| <p>4. General Education provides freedom of choice and social mobility.</p>   | <p>4. Rural Education may determine the consequences for rural productivity and impart technical knowledge to rural youth.</p>  |
| <p>5. Increasing resource quantity not positively correlated with increase in attainment. Resources distributed by formula.</p> | <p>5. Rural Education suffers qualitatively in terms of:</p> <ul style="list-style-type: none"> <li>- access</li> <li>- drop out rates</li> <li>- teacher inexperience</li> <li>- resources</li> <li>- services</li> </ul> <p>Equal access does not mean equal opportunity.</p> |

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|--|---|
| 6. <i>Granted, education in rural areas modelled on urban system which is not entirely appropriate.</i>  | 6. <i>General Education tends to homogenize. Applicable for urban areas but does not prepare for rural.</i>       |
| 7. <i>Need less relevant education to get to secondary and higher education (maths/science thinking).</i>  | 7. <i>Education should be relevant to the local students, parents and community.</i>                              |
| 8. <i>Goal of education is contribution to society.</i>  | 8. <i>Goal of education is rise in rural welfare.</i>   |
| 9. <i>Post compulsory training for urban/rural specialisation</i>  | 9. <i>Post compulsory training exacerbates problem of educated unemployed. Specialize sooner.</i>                 |
| 10. <i>Decentralise secondary education through local boarding centres.</i>  | 10. <i>Decentralise through lower cost and more prevalent P-10 schools.</i>                                       |
| 11. <i>Non mobility education unacceptable, discriminatory and unfair.</i>   | 11. <i>Minimal literacy and elementary understanding of man and nature insufficient in the country</i>            |
| 13. <i>The themes of modernity are woven into local custom. Individuals must become estranged in some degree from tradition if they are going to participate in bringing a new society to birth.</i> | 13. <i>Traditional values are inherent in rural education. Insular from the ills of the city. Change is slow.</i> |
| 14. <i>A one system of primary education for all reveals a de facto dual system that perpetuates inequality.</i>   | 14. <i>Formalise dual system to provide equal educational opportunity.</i>  |

As mentioned previously the dichotomous view is one of polarity, of extremes. A combined educational paradigm focusing on the strengths of each model is supported by a majority of researchers to which the following quotations attest:

*... we must recognize that there are historical and perhaps even genetical or theological limits to cultural pluralism which must be recognized if communities, regions and nations are to maintain some cohesion through shared concepts and experience. The polarisation of differences, whether between the fit and the handicapped, between male and female, between black and white, between life in the factory and life on the land, between the urban and the rural, without complementary stress upon what is common to each, is a recipe for intolerance, misunderstanding and conflict*

(Whitfield, 1981, p. 12).

*... any alternative, including schooling, has advantages and disadvantages. Neither formal nor non-formal education by itself is an adequate or feasible response to the needs in most developing settings (Evans, 1981, p. 239). ...the problem facing policy makers is not one of choosing either single general systems or dualistic systems, but it is rather that of making whatever mixed system they may have work in ways which support greater equity rather than increasing inequity in outcomes (p. 236).*

Evidence cited throughout the themes of Australian content, schooling, technology and educational delivery presented in this paper, point unequivocally to the author's belief that the "education in rural areas" model of educational provision is the one presently adopted in all Australian States. While it is also the preferred model mentioned in the literature researchers have been quick to recognize the need for diversity and flexibility to be incorporated into the system.

How then, do we get from a set of education policies and practices that tend to view education as a generic endeavour to a set of policies and practices that value and accommodate rural small town culture and rural small schools? (Nightingal, 1982, p. 302).

Disadvantage or difference. Darnell (1981) argues that,  
*...for too long urban dwellers, operating from an intrinsic belief that urban equals greater educational opportunities, and therefore a better education, have attempted to show that rural people are suffering from educational disadvantage".*

The bulk of literature covering rural disadvantage has centred around external factors such as distance, opportunities, and services offered. Doecke (1987) makes the point that,  
*...the extent rural children are disadvantaged educationally needs to be seen less in relation to external factors such as distance and facilities, and more in terms of the curriculum being offered, quality of teachers, and the relationship between curriculum and environment (p. 31).*

Doecke (1987) goes on to question the very basis of disadvantage when he says,  
*...perhaps rural disadvantage was never there - or at least not to the extent claimed....What has been identified as rural disadvantage may in fact be no different from any other form of disadvantage identified in the city or elsewhere....It is very easy to suggest that the cause of some kind of lack of achievement or opportunity is the result of where one lives, when in fact it is related to a much more complex set of features (p. 33).*

The term 'disadvantage' is rejected by Sher (1985) in favour of 'discrimination'. He maintains that, "the fundamental problems for education in rural areas do not relate to rural disadvantage but rather reflect discrimination against schools in rural communities. His basis for rejecting 'disadvantage' is twofold. Firstly,

*...the disadvantaged label carries with it a powerful, albeit subtle, political temptation to blame the victim; thus in being disadvantaged by virtue of being rural, the only way to become advantaged is obviously to become urban (p. 54).*

Secondly, " the term disadvantaged creates a negative mind set which tends to overlook the advantages and positive attributes of rural schools and communities (p. 54).

Sher's reaction to 'disadvantage' is persuasive, however his contention that governments covertly discriminate against schools and communities is unrepresentative of a more moderate literature. A less 'radical' view is espoused by Darnell and Higgins (1983),

*Formal school systems have the legal and financial means to control education programs and they have a pool of specialists available to work on education developments. But they may have little knowledge of local conditions and needs. Conversely, rural residents may intuitively know what they want by way of education for their children but they lack knowledge of the options available to them and the skills to bring these options to bear on the issues (p. 32).*

Over time recommendations have been made in the literature that respond both to Darnell and Higgins (1983) and to Nachtigal's (1982) questions posed earlier. McLean (1981), listed six actions that enable rural community control over what Doecke (1987) later labelled external factors. To remove rural disadvantage McLean says,

- *Involve the community*
- *Identify existent resources*
- *ensure local control and essential delivery systems*
- *localise decision making*
- *modify the general curriculum for local relevance*

Meyenn (1985) added to the list in consideration of a different type of schooling that he maintains appears warranted in rural communities. He includes:

- *the funding of 'rural education' being weighted so that a more realistic attempt can be made to reduce inequality of opportunity*
- *the involvement of local communities in the selection and appointment of staff (referring only to teaching staff not other government instrumentalities)*
- *elements of some pre-service teacher education programs for prospective teachers who want to teach in rural areas.*
- *increased in-service education and professional support for rural teachers*
- *full consultation with a community when a school is being considered for closure and the possible re-opening of new ones*
- *incentives for teachers in more isolated areas*
- *structures be implemented at a variety of levels, that allow for comprehensive representation of rural interests (p. 70-71).*

This theme has attempted to deal so far with the issues surrounding an educational paradigm that is applicable to rural areas. The term 'rural education' is generally used in the literature as a synonym for 'education in rural areas'. The differences that have been listed however, make the terms relatively distinct. Rural education assumes an education only for rural areas, the prime goal of which is to prepare students for life in the rural community. Conversely, education in rural areas is based on a general model of education, applicable to all students living in all areas, and including a component, the size and extent of which is most important, to meet local community needs. There is continuing debate on the degree to which education in rural areas, without significant relevance to the area in which it is placed, disadvantages, discriminates or makes the recipients of the education different from people living in other areas to a greater degree than they would otherwise be.

There is also continuing debate on the parameters of local relevance. Who decides what is appropriate to local people Sher (1985) asked. There is even more contention as to whether the problems normally associated with education in rural areas, are endemic only to rural areas. Bessant (1978) answers his own question, the one posed in the introduction to this theme, by stating,

*...the problem for schooling in Australia is to distinguish the real differences from the imagined, since most problems are common to both rural and urban areas...the particular adaptations and variations needed to accommodate local needs should be examined, just as much for the rural as for the urban areas (p. 130).*

Bessant may in fact be only stating the obvious. If the existing practice of educational uniformity mitigates against the likelihood of the high level of flexibility that being different necessitates (Darnell and Higgins, 1983), that practice is just as inflexible in urban as in rural areas. The reason 'education in rural areas' was selected by governments is that the one structure (the one best system) is supposed to cater for the entire spectrum of educational provision in all areas. That clearly is not the case. Local input has become almost mandatory in all areas of educational provision from the birth of new ideas and structures to their conclusion.

The final point to be made in this theme relates to what previously has not been documented in Australia. Educational researchers and policy makers may have chosen a vision for the education of people living in rural areas, but to what extent are those visions sanctioned by the recipients of that education? Do rural people want rural education, education in rural areas, or a mixture of both? What ingredients constitute an educational model that people living in rural areas (particularly parents and teachers) perceive will meet their needs?

## CONCLUSION: RESEARCH

It is the aim of this section to summarize the topics discussed under the four themes presented in this paper, to comment on the scholarship found in the literature, and to list the research questions, apparent from the issues raised, that may catalyse comment and discussion in order to produce a national research agenda on education in rural areas within Australia.

### Summary

The literature review presented in this paper was structured around four themes: schooling, technology, educational delivery and education in rural areas. Each theme represented a collection of similar topics that arose as descriptor terms throughout the literature. A schematic representation of the themes and corresponding descriptors was provided in Figure 1. (p 3.)

The context for the provision of rural education in Australia introduced a major methodological research concern - the lack of a uniform, nationally agreed definition of what constitutes rural Australia. The economy and economic conditions were discussed in relation to rural communities and a link was supported between local schools and local economic development.

Theme One included teachers, students, school - community relationships and accommodation. Recruitment and retention of teachers in rural areas was seen as of prime importance, particularly the need for specialised pre-service teacher training and an induction program covering school and community expectations upon the graduate teacher's arrival at his/her 'new' school. The provision of incentives to enhance teacher continuity was also discussed.

Quality and accountable education appear to simmer on all political agendas and thus the issue of student achievement, which is often interpreted as the outcome of education. It was found that although methodology in this area varies greatly, correlations between intelligence, academic achievement and place of residence are minimal.

The post-compulsory retention of students has increased steadily during the last decade and continues to do so in all Australian states. Such increases place strain on the provision of specialist services to rural areas. The support for both indigenous students and students with particular needs (gifted to disabled) was an area identified as requiring more intensive research.

The interaction of professional educators with parents and community members has been formalised within the government school system in the last several years. Collaborative structures that focus on local input have been mandated in some areas (e.g., school development plans) and seen to be lacking in others (e.g., school closures).

Rural lifestyle and rural school characteristics have received considerable attention throughout the literature. Human resource interactions based on open communication among teachers, parents, students and the wider community were generally considered the strengths of the rural school. Limited curriculum offerings and inadequate resource provision (human and material) seemed to constitute the weaknesses.

The accommodation of students in boarding facilities highlighted the reality for isolated families of the need to provide a secondary education away from home. The position adopted by the ICPA was discussed in relation to the options available for secondary education.

The theme on technology began with a rejection of the myth that technological communication has all but dispelled isolation in the bush. Innovations of considerable utility are being trialled throughout government departments and while wide spread benefits may accrue in the longer term, basic communications in isolated areas and electronic classroom applications in schools have yet to reach fruition.

Theme Three encompassed a multitude of issues and concepts that surround the delivery of education to rural areas. The concept of equal educational opportunity is strongly debated throughout the literature as providing an even match of education provision (including staffing ratios and resource allocation) between urban and rural areas. The term 'equal' however, assumes a

sameness in need in all locations. Not only are urban areas different from rural areas, each area is different within itself. Schooling provision therefore should be visualized on the needs of local areas, and as such require an equity rather than equality of educational opportunity.

Access was found to be a key underlying feature throughout this theme. Access to the curriculum was seen to include local relevance and a balance between centralised curriculum production and that produced within a local area. The exact balance to be struck is dependent on the central authority's policy on decentralised decision making to school communities. No one has argued for total school autonomy over curriculum. The issue is the extent to which schools are empowered to modify a common curriculum framework, and the level in the system, at which such decisions can be made.

Support services to schools it was suggested, are most effective when they are accessible, co-ordinated and trained to view the school as an integrated system. Systems level change then, is based on a team approach to collaborative problem solving. Access to quality education is provided through an appropriate educational model that recognizes the strengths and weaknesses of the area into which it is introduced. Two such models were discussed in Theme Four.

The provision of education to rural areas in Australia is based on the educational orthodoxy of a generalist rather than specialist model. 'Education in rural areas' in contrast to 'rural education' has been accepted as the form of generalist education provision in all states. The term 'rural education' as outlined in Theme Four, delineated a model that was rural specific. Its prime goal being to prepare students for life in the rural community. 'Education in rural areas' on the other hand, is founded on the concept of a one best system of education for all. Neither model, by definition, is totally appropriate in any setting. 'Rural education' discriminates against the tertiary bound student and the student who does not appreciate or acknowledge the rural lifestyle. 'Education in rural areas' claims generalisability without necessarily adapting to local conditions.

What is starkly obvious throughout the literature, and increasingly present in Australian education policy is the need for a basic, common curriculum framework that is supported by locally relevant resources and flexible enough to adapt to local community needs and expectations.

What is not obvious is the extent to which the practitioners of education, the teachers and parents, sanction the relative components of such a model. Further research is required in this area.

### Literary Scholarship

'Educational research in Australia, following developments in other parts of the world, has passed through several stages' (The Australian Encyclopaedia, 1983). While these have been mentioned in various historical documents, the stages of research into rural education in Australia are less clear. Tomlinson (1986) in his paper on *Issues and Research in Australian Rural Education* has argued that rural education research began with William Radford (1939) in his book on *The Educational Needs of a Rural Community*. Few would disagree.

The scholarship on rural education both in the United States and in Australia since Radford, has been relatively underdeveloped (DeYoung, 1987; Helge, 1986; Stephens, 1985). The latter author goes on to say that 'the literature is meager and much of it lacks sophistication' (Stephens, 1985:167). Explanations for research paucity in rural education Stephens (1985) maintains, are a reflection on the educational profession generally and also peculiar to rural education. He offers seven lines of explanation for this existing state,

... 1. *the long standing lack of appreciation for the demonstrable difference between rural and urban schools;*

2. *rural education has generally lacked the appeal in the academic community comparable to the excitement of urban education;*



3. there is not at present a large number of professionals who have devoted their careers to the continuous study of rural education;

4. there historically has been little networking in the professional and research communities, especially at the national level;

5. unlike urban education, rural education has not been the focus of intense concern in the policy communities because there has not been a widespread perceived crisis in rural education comparable to the perceived situation in urban schools;

6. confusion concerning the domain of rural education has led to a lack of consensus concerning the foci of research that should be conducted;

7. finally, the relatively late emergence of National Research Clearinghouse Organisations that in Australia have tended to maintain a broad focus (e.g., The Australian Council for Educational Research). The Society for the Provision of Education in Rural Areas (SPERA) and the Rural Education Research and Development Centre are more recent organisations whose impact on research in rural areas will continue to grow annually.

Research that has been conducted in rural education in Australia has a number of common features. It tends to be well presented using methodology that is either quantitative or qualitative. It does however follow the particular interests of published researchers. That is, the research is 'ad hoc'. Very little has been developed in any particular area following a state let alone national long term research agenda.

Rural education research, apart from being of interest to a small number of Australian writers, each of whom develop their own research agenda, does not appear to have a philosophic foundation. While research in curriculum areas can be identified for example, as relating to certain philosophical positions, the same can not be said for research conducted in rural education.

Any state of the art review on a section of research literature has limitations. This paper has attempted to highlight the issues that have been identified by research published in the area of rural education. One limitation arose due to the descriptors that were initially used to search various databases. Because 'rural education' was held as a main descriptor, any articles published in non-related fields but actually pertaining to rural areas tended to be missed. It is accepted that considerable recent research has been undertaken in aboriginal education and in the education of women and girls (James, 1989 *Women in Rural Australia*; and CSC, 1987 *The National Policy for the Education of Girls in Australian Schools*) are examples. The fact that few such documents are recorded under rural descriptors does not lessen their importance. It does however highlight the urgent need for a national co-ordinated clearinghouse on research in rural areas in general and rural education in particular.

## Research Questions

1. What constitutes rural Australia? An agreed definition must be capable of quantifiable analysis.
2. What is the relationship between rural, sparsely populated, isolated, provincial, urban and suburban?
3. What services ought to be provided under the umbrella of Distance Education? How does Open Learning differ from Distance Education?
4. How does local economic development impinge on the provision of education in rural areas?
5. What is the local schools role in terms of community economic development?
6. What steps are necessary to recruit quality students into the teaching profession?
7. Are the attributes of a potential quality teacher discernible at the pre-tertiary stage?
8. How is continuity of rural teaching service extended?
9. How is tertiary institution commitment engendered to establish pre-service training in rural education?
10. What are the curriculum requirements for a pre-service course in rural education?
11. How are graduate teachers suitably inducted into rural areas and what forms the content of such programs?
12. How do individual learning styles impinge on rural pedagogy?
13. How do local attitudes impinge on pedagogy and what actions should be taken to address these attitudes?
14. What educational provisions most effectively cater for cultural and gender equity.
15. Based on an appropriate definition of rurality are there significant differences between urban and rural secondary school retention rates? What factors contribute to any difference?
16. What is the nature, area, and extent of school - community participation?
17. What is the proper amount of decentralisation of authority and devolution of control to local communities in relation to the education of their children? Who is legitimately empowered to decide what amount is proper?
18. What are the states and federal funding priorities for the secondary education of isolated students?
19. What are the directions of technological innovation at a national level? What steps are required to co-ordinate inter-state networking on technology?

20. Is equity of educational opportunity attainable across locations? What major steps would be included in an action plan that would facilitate equity of opportunity within five and within ten years?

21. What are the directions of curriculum design for the future?

22. Is the present model of service delivery to schools and the community meeting client needs? If not what changes are warranted?

23. Is rural Australia sufficiently different to warrant a different type of education? By what criteria would a 'different' education be developed?

#### **PRIORITIES FOR FUTURE RESEARCH**

1. What are the research priorities for future research into education in rural areas?

- \* rural definition*
- \* teacher preparation*
- \* curriculum design*
- \* community participation*
- \* access to services*
- \* secondary education to isolated students*
- \* educational provision to facilitate gender and cultural equity.*

## BIBLIOGRAPHY

- A Fair Go: The Federal Government's Strategy for Rural Education and Training. Minister for Employment, Education and Training., and Minister for Primary Industries and Energy., Australian Government Publishing Service, Canberra, May, 1989.
- Allred, W.E., and Smith, R.B., "Profile of Utah Teachers Leaving the Teaching Profession", Rural Educator, 5,(3), Spr 1984, 2-5.
- Amodeo, L.B., Selected Characteristics and Perceptions of Rural School Teachers, Administrators and School Board Members. Paper presented at the Joint Annual Rural and Small Schools Conference (Fourth) and Kansas Community Education Association Conference (Manhattan, KS, November 15-16, 1982), ED238645.
- Anderson, L.O., "Small Rural High Schools and College Completion", Journal of College Student Personnel, 15,(3), 1974, 191-193.
- Ankrah, D.L., "The Deployment and training of teachers for remote rural schools in less developed countries", International Review of Education, 28,(1), 1982, 3-27.
- Archer, W.E., "The Use of Computers in Rural Education", Dissertation Abstracts International, Volume 49/05-A, 1988, 1122.
- Australian Department of Primary Industries and Energy., Education in Rural Australia, a discussion paper prepared for the Rural and Allied Industries Council, Canberra, Australian Government Publishing Service, 1988.
- Australian Encyclopaedia. The Grollier Society of Australia, Sydney, Vol. 3, 1965.
- Baker, R., and Ambrose, B., "The Small Rural School and In-service Provision in Science", Research in Rural Education, 3,(1), Sum 1985, 31-34.
- Barber, E.G., "General Education versus Special Education for Rural Development", Comparative Education Review, 25,(2), Jun 1981, 216-31.
- Barker, B., and Beckner, W., Rural Education Preservice Training: A Survey of Public Teacher Training Institutions in the United States. Paper presented at the National Conference of the Rural Education Association (77th, Cedar Rapids, Ia, October 13-15, 1985), ED261838.
- Barker, B., "Curricular Offerings in small and large high schools: How broad is the disparity? Research in Rural Education, 3,(1), 1985, 35-38. In De Young, A.J., "The Status of American Rural Education Research: An Integrated Review and Commentary", Review of Educational Research, 57,(2), Summer 1987, 123-148.
- Barker, B., The Advantages of Small Schools. ERIC Clearinghouse on Rural Education and Small Schools. Las Cruces, NM: New Mexico State University, ED265988.
- Barker, B.O., An Evaluation of Interactive Satellite Television as a Delivery System for High School Instruction. Paper presented at the Annual Meeting of the Southwest Educational Research Association (10th, Dallas, TX, January 29-31, 1987), ED277534.
- Barker, B.O., Efforts to Improve the Preparation of Teachers for Rural Schools. Paper presented at the Annual Conference of the Southwest Educational Research Association (Houston, TX, January 30 - February 1, 1986), ED265993.
- Barker, B.O., "How much do we know about rural education? What do we need to find out?" Resources in Education, 21,(8), 1986, 124.
- Baskerville, R.A., Increasing Visibility of Rural and Small Schools: Political Organisation - An alternative. Paper presented to the Rural Education Conference (Manhattan, KS, November 16, 1981), ED211288.

- Beavers, R., "New Directions In Distance Education for Children", Developing Education, 8,(6), June 1981, 14-16.
- Behrens, N., The Huon Valley Study: Opportunities and Educational Priorities In a Tasmanian Country Area, Tasmanian Education Dept., Hobart (Australia), 1978.
- Benson, C.S., The Cheerful Prospect: A Statement on the Future of Public Education, Boston: Houghton Mifflin Co., 1965.
- Berry, P., and Langford, P., "Integration and Mainstreaming", in Langford, P., (ed.), Educational Psychology: An Australian Perspective, Longman Cheshire, 1989.
- Bessant, B., "Rural Schooling and the Rural Myth in Australia", Comparative Education, 14,(2), June 1978, 121-132.
- Birks, K.N., "Financing of Rural Education: A state Viewpoint", in Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence, National Centre for Research on Rural Education, University of Western Australia, Perth, 1981.
- Blackwood, L.C., More Like a School Family Than Just a Teacher and His/Her Students. Is a One Teacher School for You.....?, ED306049, 1987.
- Bloomquist, L.E., "Rural Manufacturing Gets Mixed Reviews", Rural Development Perspectives, 4,(3), Jun 1988, 22-30.
- Boyd, T.A., "Irreparable Harm: The Manipulation of Symbols in One School Consolidation Struggle", in Education In Appalachia. Proceedings from the Conference, 1987, ED300185.
- Boylan, C., "Research on the Provision of Education in the New South Wales Central School", Research In Rural Education, 5,(2), Spr 1988, 43-48.
- Braggett, E., Hatchard, D., and Boylan, C., "Patterns of Educational Participation in Rural areas of NSW and Victoria", in Reeves, D.T., (ed.), Rural Communities: Determining their future - the Quiet Revolution, 4th annual SPERA Conference, 1988.
- Brentnall, B., and Dunlop, M., Distance and Disability, A survey of Children with Disabilities in Isolated Areas of Australia, United Church, National Mission, Frontier Services, 1985.
- Brown, D.E., Higher Education Students from Rural Communities: A report on Dropping Out, ED258771, 1985.
- Brown, D.L., Demographic Trends Relevant to Education in Nonmetro America, Economic Research Service (DOA), Washington, DC, Agriculture and Rural Economics Div., 1987, (ED283666).
- Brown, S.K., and Maisey, J.R., Rural Schools within their communities, Studies in Rural Education No.4, Research Branch, Education Dept., Western Australia, Aug. 1980.
- Browne, G.S., (ed.), Education In Australia, MacMillan, Melbourne, 1927.
- Campbell, E., "S.H. Smith: His contribution to the Development of Education in New South Wales," unpublished MEd thesis, University of Sydney, 1967, in Turney, C., Sinclair K.E., and Cairns, L.G., Isolated Schools: Teaching, learning and transition to work, Sydney University Press, 1980.
- Charles, E.B., The Effect of Rurality on the Education of Rural Youth, ERIC Clearinghouse on Rural Education and Small Schools, New Mexico State University, University Park, 1968. (ED019171).
- Clarke, V.L., Rural Women In Gippsland: educational opportunities and needs and employment potential, Victorian College of Agriculture and Horticulture, MacMillan Campus, 1984.
- Cohen, D., "Teacher Education as the Sabotage of Excellence In Schooling", The South Pacific Journal of Teacher Education, 15,(2), Nov 1987, 46-54.
- Coladarci, A., "Paradise Regained: An Apodictic Analysis of the Relationship between School Size and Public Achievement", Research In Rural Education, 2,(2), Fall 1983, 79-82.

- Coladard, T., and McIntire, W.G., "Gender, Urbanicity, and Ability", Research in Rural Education, 5,(1), Win 1988,13-15.
- Colclough, C., and Hallak, J., "Some Issues in rural education: equity, efficiency and employment", Prospects, 6,(4),1976, 501-525.
- Cole, J.T., and Ranken, M.M., "Providing Services to Exceptional Students in Rural Areas: Some Problems", Rural Educator, 2,(3), Spr 1981, 1-6.
- Commonwealth of Australia., "Economic and Rural Policy: A Government Policy Statement", AGPS, Canberra, 1986, In Schooling in Rural Australia. Commonwealth Schools Commission, Curriculum Development Centre, Canberra, 1987.
- Commonwealth Schools Commission., Report of the Working Party on the Living Away from Home Facilities Study (Chairman: M. Miland). Study of Living Away from Home Facilities for Isolated Children. Canberra, 1982.
- Commonwealth Schools Commission.. The National Policy for the Education of Girls in Australian Schools. Canberra Publishing and Printing, May 1987.
- Connor, B., "General Theory of deployment and Interest in money", South Australian Teachers Journal, 5,(5), April 11,1973,14-15.
- Cosby, A.G., Student Attainment in Relation to Rural Education. Paper presented at the Rural Education Seminar (College Park, Maryland, 29-31 May 1979), ED172981.
- Cox, D.E., "Learning Style Variations between Rural and Urban Students", Research in Rural Education, 5,(1), Win 1988,23-25.
- Cusak, J., "Problems of Staffing country schools - the role of women teachers", Pivot, 1,(5), 1974,11-13.
- Darnell, F., "Equality and Opportunity in Rural Education", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence. National Centre for Research on Rural Education, University of Western Australia, Perth, 1981.
- Darnell,F., and Higgins, A.H., "Factors and Issues in Australian Rural Education: A Case for New Perspectives", In R.K. Browne and L.E. Foster (eds.), Sociology of Education, 3rd. Edition, Macmillan, Melbourne, 1983, 25-33.
- Davis, J., "Rurality and Isolation in Education", Rural Educator, 9,(1), Fall 1987,11-14.
- Davis, J.E., "Secondary education in the outback: the Western Australian scene", Education Research and Perspectives,12,(1), June 1985,14-25.
- De Young, A.J., "The Status of American Rural Education Research: An Integrated Review and Commentary", Review of Educational Research, 57,(2), Summer 1987,123-148.
- Deaton, B.J., and McNamara, K.T., Education in a Changing Rural Environment: The Impact of Population and Economic Change on the Demand for and Costs of Public Education in Rural America. A Synthesis of Research Findings and an Identification of Important Policy Issues. Southern Rural Development Centre, Mississippi State, Miss., 1984. ED241210.
- Dengate, R.W., "Teaching in central schools", In Educational Research in Australia: Indigenous or exotic? Unpublished papers presented at the annual conference of the Australian Association for Research in Education held at the University of New England, Armidale, New South Wales, November 30 - December 4, 1988.
- Deosaran, R., Educational Aspirations. What Matters? A Literature Review. Toronto Board of Education (Ontario), Research Dept., 1975, ED127497.
- Deschamp, PA., and Beck, T.M., Teacher Transfers: A Survey of Teachers' Opinions on Factors Influencing Their Period of Stay in Schools with a Low Staff-Retention Rate. Studies in Rural Education No.2. Western Australian Education Department, Perth, 1979. ED186159.

- Diez Prieto, M.P., Teacher Training for Rural Schools Open to the Environment (Sociocultural, Spain). Vol 50/02-C of Dissertation Abstracts International, Publicacions, Universitat De Barcelona, 1988, p.166.
- Doecke, M., "Rural Disadvantage: Is It For Real?" Curriculum Perspectives, 7,(2),1987,31-35.
- Dolly, J.P., and Katz, P.D., "The Relationship of Instructional Practices to Student Learning in Rural Schools", Research In Rural Education, 4,(1), Fall 1986,35-37.
- Dolly, J.P., and Page, D.P., "The Lack of Parent Participation in Rural Schools", Research In Rural Education, 1,(2), Win 1983, 53-57.
- Donaldson, G.A., "One Practitioner's Notes", in Nachtigal, P.M., (ed.), Rural Education: In Search of a Better Way. Westview Special Studies in Education, 1982.
- Duck, G., Webb, E., Cunningham, D., and McSwan, D., Teaching in Rural and Isolated Areas of Queensland, Board of Teacher Education and James Cook University of North Queensland, James Cook University of North Queensland, Townsville, 1988.
- Dunne, F., Small Scale Rural Education: Prospects for the Eighties. Paper presented at the Annual State Convention of People United for Rural Education (PURE) (1st, Des Moines, Iowa, February 2-3, 1978).
- Dunnell, P., Country School Leavers: Studies In Rural Education, Studies In Rural Education No.5, Research Branch, Education Department of Western Australia, August, 1980.
- Easton, S.E., Social Studies and Citizenship Education In Rural America: Process and Product. Paper presented at the National conference on Rural Teacher Education (Bellingham, WA, October 9-11, 1985).
- Edgington, E.D., and Koehler, L., "Rural Student Achievement: Elements for Consideration. ERIC Digest", ERIC Clearinghouse on Rural Education and Small Schools, Las Cruces, N. Mexico, 1987, ED289658.
- Edgington, E.D., and Martellaro, H.C., "School Size and Academic Achievement", The Rural Educator, 9,(3), Spr 1988, 6-11.
- Edgington, E.D., Rural Education - Key Policy Issues. Paper presented at the Interamerican Congress on Educational Administration (1st, Brasilia, Brazil, December 9-13, 1979), ED178235.
- Education Commission of New South Wales, Listening and Responding: A Review of Education In Rural New South Wales, Working Party on Rural Education, December, 1983.
- Encyclopaedia of Educational Research, 5th. Ed., Vol. 4, The Free Press, (Macmillan), 1982.
- Evans, D.R., "The Educational Policy Dilemma for Rural Areas". Comparative Education Review, 25,(2), Jun 1981, 232-43.
- Farley, R., What Is Rural Education? In the Past 50 Years. Paper presented at the Annual Kansas State University Rural and Small School Conference (2nd, Manhattan, KS, November 1980). ED201463.
- French, K., Leaving School In Rural Queensland, Planning Branch, Department of Education, Queensland, January, 1981.
- Friedland, W.H., "The End of Rural Society and the Future of Rural Sociology", Rural Sociology, 47,(4), Win 1982, 589-608.
- Fritsch, H., and Kuffner, D., "Small Scale Distance Education: The Personal (Computer) Touch"; Tutorial Methods for TMA's Using a Computer". Research In Distance Education, 1,(1), Apr 1989, 10-14.
- Fuller, H.J., "Profiling procedures used to initiate school improvement efforts: A qualitative case study of outcome-based education implementation in a rural school district in Texas", Volume 49/08-A of Dissertation Abstracts International, 1988, 2041.
- Gilmore, J.G., "Choice and the country high school". Curriculum and Research Bulletin, 17,(3), August 1982, 29-32.

- Green, A., and Stevens, W., "What Research says about Small Schools", The Rural Educator, 10,(1), Fall 1988, 9-14.
- Gregory, G.N.F., (ed.), "Isolated Communities: A Report on the Needs of Inland Australia", Proceedings of 'Needs of the West Conference 1984', 1987.
- Gretg, A., and Hedberg, J.G., "A national educational television network for Australia: why, how and when", In Steel, J., and Hedberg, J.G., (eds.), Ed. Tech 88: designing for learning in industry and education, proceedings of the 1988 Conference of the Australian Society for Educational Technology, Canberra College of Advanced Education 27-29 September 1988.
- Grippin, P.C., How far is the Ivory Tower from Reality in Preparing Teachers for Rural Settings?, Paper presented at the American Educational /research Association Meeting (Chicago, IL, April 1985), ED258774.
- Guenther, J., and Weible, T., "Preparing Teachers for Rural Schools", Research in Rural Education, 1,(2), Win 1983, 59-61.
- Hall, G.L., "100,000 and Under: Occupational Education in the Rural Community Junior College", American Association of Junior Colleges, Washington, D.C., 1968, ED026037.
- Haller, A.O., Rural Education and the Educational and Occupational Attainments of Youth, New Mexico State University, University Park, ERIC Clearinghouse on Rural Education and Small Schools, 1969, ED029748.
- Hamblin, A.G., "Current Practices of Rural and Non-Rural School Psychologists: A Survey", Dissertation Abstracts International, Volume 43/01-B, 1981, 231.
- Harrold, R., and Powell, R., "Impact of the Rural Economy on the Provision of Educational Services: An Economic Perspective", Unpublished case study report prepared for the CSC, 1987, In Schooling in Rural Australia, Commonwealth Schools Commission, Curriculum Development Centre, Canberra, 1987.
- Haughey, M.L., and Murphy, P.J., "Preparing student teachers for professional appointments in rural schools. Paper presented at a working session of the Associated Teacher Education of Europe (Denmark, September, 1983)", Resources in Education, 19,(6),1984, 122.
- Haughey, M.L., and Murphy, P.J., "Profile of a Rural School Teacher in British Columbia", Education Canada, 23,(1), Summer 1983,4-9.
- Haughey, M.L., and Murphy, P.J., "Why Teachers Stay in Rural Schools: A British Columbia Report", Educational Research and Perspectives, 12,(1), June 1985, 37-45.
- Hawley, D.E., "The Costs, Effects, and Utility of Microcomputer assisted Instruction in a Rural School Division in Canada", Dissertation Abstracts International, Volume 46/11-A, 1985, 3206.
- Hedberg, J.G., "Technology, continuing education and open learning or technology 1 - bureaucracy 0. In Steel, J., and Hedberg, J.G., (eds.), Ed. Tech 88: designing for learning in industry and education, proceedings of the 1988 Conference of the Australian Society for Educational Technology, Canberra College of Advanced Education 27-29 September, 1988.
- Helge, D., "Establishing an Empirically Determined National Rural Education Research Agenda", Research in Rural Education, 3,(3), 1986, 99-105.
- Helge, D., "Establishing an empirically determined national rural education research agenda", Resources in Education, 21,(2),1985.
- Higgins, A.H., "Using Satellites to Alleviate Rural Educational Remoteness", Unicorn, 11,(3), Aug 1985, 237-241.
- Hind, I.W., "Estimates of Cost Functions for Primary Schools in Rural Areas", Australian Journal of Agricultural Economics, 21,(1), April 1977,13-25.
- Hind, I.W., "Some Economic Aspects of the Provision of Educational Services in Rural Areas", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence, National Centre for Research on Rural Education, University of Western Australia, Perth, 1981.
- Hobbs, D., Education in Rural America: Object or Instrumentality of rural Development, Washington, D.C: National Institute of Education, 1979 (ED172966).



- Hobbs, D., "Rural Education: The Problems and Potential of Smallness", High School Journal, 64,(7), Apr 1981, 292-98.
- Holder, B.H., "Sex Equity for Rural American Women", Research In Rural Education, 1,(1), Fall 1982, 21-25.
- Holmberg, B., "Distance education: a survey and bibliography", London: Kogan Page, 1977, In Keegan, D.J., "On defining distance education", Distance Education, 1,(1),1980,13-36.
- Holmes, J.H., "Lands of Distant Promise", In Lonsdale,R.E., and Holmes,J.H., (eds.), Settlement Systems In Sparsely Populated Regions: The United States and Australia, Pergamon Press Inc. 1981.
- Horn, J.G., Higher Education's Response to the Needs of Rural Schools, Paper presented at the Annual Meeting of the American Educational Research Association (Los Angeles, CA, April 13-17, 1981), ED201435.
- Horn, J.G., "NonInstructional Duties of Teachers In Rural/Small Schools", Small School Forum, 4,(3), Spr 1983,10-12.
- Horner, B., and O'Neill, J., "Child Welfare Practice In Small Communities", Human Services In the Rural Environment, 6,(3-4), Sum-Fall 1981,16-23.
- Hosle, P., "Realistic uses of AUSSAT for distance education In Western Australia primary and secondary schools", Distance Education, 9,(1), Mar 1988, 27-47.
- Howse,G.D., "Research on Teachers In Rural Areas", In Educational Research In Australia: Indigenous or exotic? Unpublished papers presented at the annual conference of the Australian Association for Research In Education held at the University of New England, Armidale, New South Wales, November 30 - December 4, 1988.
- Humphreys, E.H., "Equality? The rural - urban disparity In Ontario elementary schools", Education Canada, 11, March 1971, 34-39.
- Humphreys, E.H., "Inequality and Rural Schools: Results of Surveys In 1967 and 1969", The Alberta Journal of Educational Research, XVIII,(2),June 1972,111-123.
- James, K., (ed.), Women In Rural Australia, University of Queensland Press, 1989.
- Jennex, G., "Central resource service to isolated schools: Northern Territory, Australia", In Library service to isolated schools and communities, Blackburn Vic: Research Publications, July 1981, 23-31.
- Jeremy, J., "Factors of geographical Isolation affecting people who care for young children", Australian Journal of Early Childhood, 7,(1), Mar 1982, 16-20.
- Jess, J.D., Local Leadership and Quality Rural Education, Paper presented at the National Rural Education Forum (Kansas City, MO, August 12-14, 1985), Department of Education, Washington, DC, ED258784.
- Johnston, R.S., "The Survival of the Small School", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence, National Centre for Research on Rural Education, University of Western Australia, Perth, 1981.
- Jordan, S.A., and Hargrove, D.S., "Implications of an Empirical Application of Categorical Definitions of Rural", Journal of Rural Community Psychology, 8,(2),Win 1987,14-29.
- Karmel, P., (Chairman), Education In South Australia, Report of the Committee of Enquiry Into Education In South Australia, 1969-70, Gov. printer, Adelaide, 1971.
- Kearney, K., Progression and Retention Rates: Queensland Schools 1970 to 1988, Demography and Manpower Branch, Department of Education, Queensland, 1989.
- Keegan, D.J., "On defining distance education", Distance Education, 1,(1),1980,13-36.
- Keppel, F., "The Necessary Revolution In American Education." New York: Harper and Row, 1966. In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence, National Centre for Research on Rural Education, University of Western Australia, Perth, 1981.

- Kitchen, H., "Education appropriate for Rural Communities on the Threshold of the 21st Century", In Reeves, D.T., (ed.), 4th Annual SPERA Conference: Rural Communities. Determining their future - the Quiet Revolution. 1988.
- Kleinfeld, J., and McDiarmid, W.G., "The Satisfaction of Alaska's Isolated Rural Teachers with Their Work Life", Research In Rural Education, 3,(3), Spr 1986, 117-120.
- Krahmer, E., and Sturgess, A.W., What Is New In Rural Education. North Dakota University, Grand Forks. College of Education, 1967. (ED014344).
- Lake, M., The Preparation of Beginning Rural Primary Teachers In Western Australia, unpublished PhD. Thesis, University of Western Australia, 1985.
- Leavitt, T.R., "Factors which Affect Satisfaction and Dissatisfaction of Teachers In Rural Schools (Nevada; Arizona; Utah)", Dissertation Abstracts International, Volume 48/06-A , University of Nevada, Las Vegas, 1986,1367.
- Logan, P., Appeal Brochure. Rural Education Research and Development Centre, James Cook University, Townsville, 1989.
- Luloff, A.E., The Cultural Component of Rurality: Determinants and Structural Stability over Time. Paper presented at the Annual Meeting of the Rural Sociological Society (47th, College Station, TX, August 22-25, 1984. (ED248079).
- MacLaine, A.G., "Australian education", Novak, Sydney, 1974, In Turney, C., Sinclair K.E., and Cairns, L.G., Isolated Schools: Teaching, learning and transition to work. Sydney University Press, 1980.
- Marshall, J.C., and Bannon, S.H., "Educational Computing In Rural Versus Urban Settings", Research In Rural Education, 3,(3), Spr 1986, 131-135.
- Massey, S., and Crosby, J., Preparing Teachers for Rural Schools. Paper presented at the Annual Meeting of the American Educational Research Association (Montreal, Canada, April 11-15, 1983), ED228025.
- Matheson, I., (Chairman), Ministerial Advisory Committee on Distance Education, Report to the Hon. L.W. Powell, M.L.A. Minister for Education, Queensland, Sept 1986.
- Matheson, I., "Foreword to 'Working Together'", in Working Together, Department of Education Queensland, Publishing Services, 1989.
- Mathews, A.M., and Vanden-Heuvel, A., "Conceptual and Methodological Issues In Research on Aging In Rural versus Urban Environments", Canadian Journal on Aging, 5,(1), Mar 1986.
- Matthes, W.A., and Carlson, R.V., Recruitment and Staff Development of Teachers: A Rural Perspective. Paper presented at the annual conference of the Rural Education association (77th, Cedar Rapids, IA, October 12-15, 1985), ED270280.
- Matthes, W.A., School Effectiveness: The Teachers' Perspective. Paper prepared for the National rural Education Research Forum (Lake Placid, NY, October 16-17, 1987). ED301367.
- Matthes, W.A., and Carlson, R.V., "Conditions for Practice: Why Teachers Select Rural Schools", Journal of Rural and Small Schools, 1,(1), Fall 1986. 25-28.
- Maxwell, C., "Quality In the Absence of Quantity: Education In Sparsely Populated Areas of Developed Countries", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence. National Centre for Research on Rural Education. University of Western Australia, Perth, 1981.
- Maxwell, T.W., "Inservice: four Innovative programs In a small education system", In Educational Research In Australia: Indigenous or exotic? Unpublished papers presented at the annual conference of the Australian Association for Research In Education held at the University of New England, Armidale, New South Wales, November 30 - December 4, 1988.
- McLean, D., "Community Involved Education: A Rural Experiment", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence. National Centre for Research on Rural Education. University of Western Australia, Perth, 1981.

- McShane, M., Boarding School Study: A Report on the Catholic Boarding Schools in Queensland. On behalf of the Standing Committee on the Education of Country Children. Queensland Catholic Education Commission, Brisbane, 1983.
- McSwan, D., and Walton, J., Participation of Persons from Rural and Remote Areas in Higher Education in Australia - An Exploratory Analysis. Mid Term Progress Report. 1990, (In press).
- Meler, E., and Edington, E.D., "Research Synthesis: Teacher Preparation for Rural Schools", Research in Rural Education, 2,(1), Spr 1983, 3-8.
- Melnick, S.A., "School District Size, Student Achievement and High School Course Offerings in Connecticut", Research in Rural Education, 4,(3), Fall 1987,119-123.
- Meyenn, R.J., "Educational provision in rural areas: Policies or Pragmatism?" Educational Research and Perspectives, 12,(1), June,1985, 61-72.
- Miller, L.P., and Gordon, E.W., (eds.), Equality of Educational Opportunity. AMS Press, Inc., New York, 1974.
- Monk, D.H., "Educational Cost Differentials and Rural Schools: A Broadened View", Administrators Notebook, 30,(4), 1982, 1-4.
- Monk, D.H., Secondary School Enrollment and Curricular Comprehensiveness. State Univ. of New York, Ithaca Coll. of Agriculture and Life Sciences at Cornell Univ., 1986.
- Moreau, R., "District Size, Teacher Qualifications, and Pupil Performance in Maine School Districts", Research in Rural Education, 4,(2), Spr 1987, 95-99.
- Morrison, N., Rural Health Care in Texas: The Facts - 1984. Texas Univ., Austin. Centre for Social Work Research, 1985. ED255337.
- Mosher, A., "To create a Modern Agriculture: Organization and Planning", The Agriculture Development Council, New York, 1971, in Encyclopaedia of Educational Research, 5th. Ed., Vol. 4, The Free Press, (Macmillan), 1982.
- Muse, I.D., The role of Higher Education in Rural Education. Paper presented at the Annual Kansas State University Rural and Small School Conference (2nd, Manhattan, KS, November 9-11, 1980), ED201464.
- Nachtigal, P.M., (ed.), Rural Education: In Search of a Better Way. Westview Special Studies in Education, 1982.
- Nelson, M.R., "Teacher Education in Rural Schooling - A Status Report", Research in Rural Education, 1,(2), Win 1983,63-65.
- Newby, J., "Syllabus Design: Fitting an Urban model to a Rural need", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence. National Centre for Research on Rural Education. University of Western Australia, Perth, 1981.
- Nixon, M., "Should Equality of Educational Opportunity be extended to Alberta Educators?" Challenge in Educational Administration, 20,(2), 1981, 10-13.
- Northeastern Illinois University, Chicago., Duality in Society: Duality in Teacher Education. ED074016. 1971.
- O'Neill, P.G., "Post-Secondary Aspirations of High School Seniors from Different Social-Demographic Contexts", Canadian Journal of Higher Education, 11,(2),1981,49-66.
- Odell, K.S., "The Educational and Occupational Expectations of Rural Ohio Tenth and Twelfth Grade Students", Research in Rural Education, 5,(2) Spr 1988,17-21.
- Oelschlager,R., and Guenther, J., "Rural School Innovations: Preparation, Awareness, Adoption", NASSP Bulletin, 67,(465), Oct 1983, 94-99.
- Oswald, D.M., "Rural studies in teacher education from innovation to stabilisation. Summary of the symposium on rural education", Resources in Education, 19,(3),1983.

- Peters, D.S., "Regional Novels In the Study of Rural Education", Rural Educator, 4,(3), Spr 1983, 10-12.
- Queensland Parliament. Select Committee on Education In Queensland: "Isolated children and isolated schools: 5th Interim Report", Bris. 1979, Chairman: M.J. Ahern.
- Radford, W.C., The Educational Needs of a Rural Community, ACER Educational Research Series No. 56, Melbourne University Press, 1939.
- Randell, S., "The Responsibilities of Schools In Local Development", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence, National Centre for Research on Rural Education, University of Western Australia, Perth, 1981.
- Ranson, B., "Rural Education and economic development In China, Mexico, Japan and the United States", Comparative Education Review, 32,(2), 1988, 213-225.
- Reed, D.F., and Busby, D.W., "Teacher Incentives In Rural Schools", Research In Rural Education, 3,(2), Win 1985, 69-73.
- Reid, J.N., Rural Areas In the 1980's: Prologue to the 21st Century., Paper presented at the Appalachia Educational Laboratory's Annual State Educational Policy Symposium (3rd, Louisville, KY, December 4-5, 1988.) ED303304.
- Rios, Betty-Rose, D., 'Rural' - A Concept Beyond Definition?, ERIC Clearinghouse on Rural Education and Small Schools, Las Cruces, N. Mex., 1988. (ED296820).
- Rosenfeld, S., A Portrait of Rural America: Conditions Affecting Vocational Education Policy, Vocational Education Study Publication No. 6, National Inst. of Education (ED), Washington, D.C., 1981, ED204043.
- Rosenfeld, S., "Something old, something new: The wedding of rural education and rural development", Phi Delta Kappan, 65,(4), 1983, 270-273.
- Sasser, C.W., "What's Wrong with Rural Schools? Everything, Says This Ex-Teacher", American School Board Journal, 162,(2), 1975, 35-36.
- Schooling In Australia: Statistical Profile No. 2, Department of Employment, Education and Training, Australian Government Publishing Service, Canberra, May 1989.
- Schooling In Rural Australia, Commonwealth Schools Commission, Curriculum Development Centre, Canberra, 1987.
- Scott, E., "A Comparative Study of Children Educated In Rural and Urban Schools", Education News, 12,(14), Aug 1969.
- Sederberg, C.H., "Courses + Classes: Catch - 22 for Small Schools", Research In Rural Education, 2,(1), Spr 1983, 43-48.
- Sher, J.P., (ed.), Education In Rural America: A reassessment of conventional wisdom, Boulder, CO: Westview Special Studies In Education, 1977.
- Sher, J.P., (ed.), Rural Education In Urbanized Nations: Issues and Innovations, Westview Press, Boulder, Colorado, 1981.
- Sher, J.P., and Tompkins, R., Economy, Efficiency and Equality: The Myths of Rural School and District Consolidation, Washington D.C., National Institute of Education, 1976.
- Sher, J.P., "Rural Education In the OECD Nations: Not Disadvantage but rather Discrimination", Educational Research and Perspectives, 12,(1), June 1985, 53-60.
- Sindlar, K.E., "Self concept and the education of geographically isolated children", Aboriginal Child at School, 11,(5), Oct/Nov 1983, 24-35.
- Solstad, K.J., "Locally relevant curricula In rural Norway: the Loftan Islands example", In Sher, J.P., (ed.), Rural Education In Urbanized Nations: Issues and Innovations, Westview Press, Boulder, Colorado, 1981.
- Start, K.B., "Quality In Education", In Quality In Australian Education, The Australian College of Education, 1978.
- Stanton, M., and Clark, S.L., "A whole school approach to self esteem", In-Focus, 1,(2), May 1989, 5-6.

- Steele, G.M., "A Model for an Exemplary Small Rural School (Naturalistic Inquiry)", Dissertation Abstracts International, Volume 46/10-A, 1985, 2911.
- Stephens, E.R., "Toward the Construction of a Research and Development Agenda for Rural Education", Research In Rural Education, 2,(4), Spring 1985, 167-171.
- Storey, K.D., "Staffing Schools In Remote Areas", Queensland Teachers Journal, 74,(8), Sept 1969, 295.
- Swanson, A.D., "The Matter of Size: A Review of the Research on Relationships between School and District Size, Pupil Achievement and Cost", Research In Rural Education, 5,(2), Spr 1988, 1-8.
- Tamblyn, L.R., What Is Happening In Rural Education Today: A Status Report, Paper presented at the Rural Education Conference, Southern Illinois University, Carbondale, Illinois, April 24-25, 1975.
- The Australian Encyclopaedia, The Grollier Society of Australia, Vol.3, 1983.
- The Australian Encyclopaedia, Vol 3, Australian Geographic Society, 1988, 967-969.
- The Encyclopaedia of Education, Vol 7, The Macmillan Co. and The Free Press, 1971.
- The Macquarie Dictionary, The Macquarie Library, Macquarie University, New South Wales, 2nd. Revision, 1987.
- Tomlinson, D., "Issues and research in Australian rural education", in P. Thomas and B. Meyenn (eds.), Providing education in rural Australia, a selection from the proceedings of the first annual conference of the Society for the Provision of Education in Rural Australia, Wagga Wagga NSW: Riverina-Murray Institute of Higher Education, 1986.
- Toy, S., "School - Community Relations in Small, Rural School Districts: Developing a Plan for a Productive Partnership", ERIC Clearinghouse on Rural Education and Small Schools, Las Cruces, N. Mex., 1987, ED282680.
- Treweeke, R.H., "Alternatives to Boarding Schools". in New Perspectives In Boarding Schools, National Council of Independent Schools. 1977, 219-226.
- Treweeke, R.H., "I.C.P.A". In Beevers, R., "New Directions In Distance Education for Children". Developing Education, 8,(6), June 1981,14-16.
- Trueblood, C.R. and Flanagan, K.R., "The role of microcomputers in rural schools", Resources In Education, 19,(2), 1984, p.131.
- Turney, C., Sinclair K.E., and Cairns, L.G., Isolated Schools: Teaching, learning and transition to work, Sydney University Press, 1980.
- Vaughn, L.D., "Small School Principals and Effective School - Community Relations", ERIC Clearinghouse on Rural Education and Small Schools, Las Cruces, N. Mex., 1984, ED261817.
- Venn, G., Vocational Education and Rural Youth, 1967, ED015064.
- Warden, J.E., "Establishing Partnerships between the Business Community and Rural Schools", ERIC Clearinghouse on Rural Education and Small Schools, Las Cruces, N. Mex., 1986.
- Warren, P.J., "Trends In Non-Urban School Systems", Education Canada, 17(1), Spring 1977, 4-11.
- Watkins, R., "Deprivation and Education in rural schools", in Walker, A., (ed.), Rural poverty, Poverty, deprivation and planning in rural areas, Centre for Information and Advice on Educational Disadvantage, London, UK; Child Poverty Action Group, 1978, 67-75.
- Watson, A.J., "Professional Development in the Rural School: A case study of Teacher satisfaction and Interests." In Reeves, D.T., (ed.), 4th Annual SPERA Conference: Rural Communities, Determining their future - the Quiet Revolution, 1988.

- Watson, A., Hatton, N., Squires, D., and Grundy, S., "Graduating Teachers And Their Attitudes Towards Rural Appointments", The South Pacific Journal of Teacher Education, 15,(2), Nov 1987, 1-17.
- Whitaker, W.H., "Conceptualising 'Rural' for Research In Education: A Sociological Perspective", Research-In-Rural-Education, 1,(2), Win 1983, 71-76.
- Whitfield, R., "Education and Local Development", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence. National Centre for Research on Rural Education, University of Western Australia, Perth, 1981.
- Williams, R.L., and Cross, W.K., Early Field Experience: A Recipe for Rural Teacher Retention. Paper presented at the Annual National Rural and Small Schools Conference (Bellingham, WA, October 9-12, 1985), ED284700.
- Williams, R.L., and Cross, W.K., "Preparing Rural Teachers In Canada", Rural Educator, 9,(1), Fall 1987, 22-25.
- Williams, T., "Participation In Education. ACER Research Monograph No. 30. Australian Council for Educational Research, Hawthorn, 1987, ED288412.
- Young, P.E., "Pre-service teacher training for rural schools", In Frank Darnell and Patricia M. Simpson (eds.), Rural Education: In Pursuit of Excellence. National Centre for Research on Rural Education, University of Western Australia, Perth, 1981.