

Multiage Classes: what research tells us about their suitability for rural schools

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Abstract

Rural schools often have mixed-age (multigrade) classes because of small enrolments. There is a body of research which supports classes which are mixed-age by choice – multiage classes. To what extent can the successful practices of multiage teachers be adopted by multigrade teachers in rural schools? This article presents a summary of the research findings related to both multiage and multigrade classes, and explores the factors which are relevant in explaining the success of multiage classes.

Do the research findings related to mixed-age classroom structures have any relevance for rural schools? There are some encouraging findings in the literature, but they need to be examined with a huge note of caution because the definitions of 'mixed-age classroom structures' and 'rural schools' are both problematic.

I have defined the different and specific sorts of mixed-age classes elsewhere (Lloyd, 1999). In this article I will discuss research and practice related to the two broad categories of mixed-age primary school classrooms: 'multiage' and 'multigrade'. 'Multiage' classes should be interpreted as follows: classes which are formed deliberately because of a philosophical commitment that such classes are educationally preferable. The acceptance of 'philosophical commitment' in turn implies that at least some cross-grade grouping and whole-class teaching (i.e. cross-grade instruction) occur, with a focus on individual progress through a developmentally appropriate curriculum. 'Multigrade' should be interpreted to mean the classes were formed for some sort of necessity rather than philosophical commitment — a necessity related to small total enrolment, fluctuations in enrolment or more efficient use of resources (including the available number of teachers and classrooms).

'Rural schools' is also a category which covers several different manifestations: 'Few issues have bedevilled analysts and planners concerned with equity in rural education more than the complex question of what actually constitutes a "rural" location' (Arnold, 2001; Clark, 1990; Griffith, 1990). In New South Wales, government primary schools are classified according to their enrolment, with P6 schools being the smallest (enrolment of 25 or fewer) and P1 being the largest (enrolment greater than 700) (Curriculum Directorate, NSW DET, 1997). As well, larger rural centres have Central Schools, which are K-10 or K-12 schools and these schools also vary in size. Students at some rural schools live within walking distance of their school while at other schools they live a considerable distance away. Some rural schools form part of a local community, while others exist in isolation (though the parents can still be regarded as part of the 'school community'). Any global use of the term 'rural schools', then, should be treated with caution unless details of the context are known.

Small-enrolment rural schools usually have mixed-age classrooms because there are not enough students to form separate grade classes. A common division is into two classes – a 'lower' K-2 or K-3, and an 'upper' 3-6 or 4-6. But such classes are not usually 'multiage' in the sense defined above, where teachers have a philosophical commitment to this form of class structure for educational reasons. They are 'multiage' in the umbrella sense of the term only, and in fact are usually 'multigrade' in their organisation, at least some of the time. However, the move towards stage-based learning and assessment through outcomes – a move which is becoming consolidated in New South Wales schools – allows for more flexible short-term divisions and groupings in these mixed-grade classrooms and for more potential for the introduction of successful multiage practices.

About the only thing which can be claimed with certainty about many rural schools is that they are *more likely* to have mixed-grade classes on a permanent basis and certainly more likely to have three or more grades in the class (as opposed to composite classes in larger schools which usually comprise two grades and which come and go on a yearly basis). How these mixed-grade or multigrade classes are organised will depend upon several factors, the most important of which are

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(1) the number of students and (2) the teacher's approach to teaching, based on philosophical commitment and experience.

So any attempt to study the research related to 'multiage' classes and discuss the applicability of the findings for rural schools needs to be interpreted in the light of:

- the size of the school/class
- the geographical isolation of the school (and the existence or otherwise of a 'local community')
- the teacher's philosophy – beliefs about learning and children
- the teacher's experience, in general terms (for example, with programming) and specifically in relation to mixed-grade teaching
- support networks available to the teacher

The structure of this article is as follows:

- a review of the research findings for multiage classes
- a brief review of the research findings for multigrade classes
- a discussion of the possible reasons for the positive findings in relation to multiage classes
- an outline of the sorts of teaching approaches commonly used by multiage teachers
- a discussion of the likelihood of these benefits and approaches being accessible to teachers in rural schools

Summary of research findings

Research findings for multiage classes: academic achievement

The academic achievement of students in multiage classes as compared with students in age-segregated ('straight') classes depends on the way the class is organised. The following points summarise the findings of various studies.

- When students are grouped across grades by ability for one subject, usually mathematics or reading, there is a significant effect on achievement (Slavin, 1987, p.295). This is probably because there is more likelihood of forming a homogeneous group if children are selected from a wider age-range.
- When such ability groupings are made for more than one subject, there are substantial positive results though the effect is not significant. The results are higher the longer the student takes part in the program (Gutiérrez & Slavin, 1992, p.15; Jones, 1999, p.145; Pavan, 1992, quoted in Viadero, 1996, p.2). In the various studies, these cross-grade groupings were formed by removing children from 'straight' classes rather than by forming groups from within a mixed-grade class. This factor could well be significant in explaining the reduced positive effect.
- When the teacher of the multiage class emphasises individualised instruction, with the children working for large periods of time from prepared materials, there are no significant differences in achievement (Gutiérrez & Slavin, 1992). Older children, however, are more likely to benefit from individualised instruction than younger ones – perhaps because they are 'developmentally ready' by then for sustained independent work, or perhaps because the importance to learning of social interaction (Vygotsky, 1962) may be more pronounced at younger ages.
- There are significant effect sizes for gifted and talented students in 'nongraded' classrooms (Rogers, 1991). This is probably because students in genuinely nongraded classes work to a curriculum specially tailored to their needs. Thus enrichment and acceleration are carried out by means of differentiated curriculum rather than by the students moving to another class for certain subjects (where the curriculum may or may not be well tailored to the student's needs). The more instructional practices are changed and the more the curriculum is targeted to the specific group, the more likely it is that students will show increased achievement (Kulik & Kulik, 1992). Perhaps an emotional factor is significant here too – students are able to be challenged within their secure classroom environment rather than having to be an 'interloper' in another class for part of a day.

- Some researchers have also claimed that a multiage (nongraded) environment 'is particularly beneficial for blacks, boys, underachievers, and students of lower socioeconomic status in terms of academic achievement and mental health' (Anderson & Pavan, 1993, p.44).
- There are studies which support achievement gains when a student is in the younger part of the class (Milburn, 1981); there are also studies which support achievement gains when a student is in the older part of the class. Katz, Evangelou and Hartman (1990), for example, claim that the social interaction stimulated in a multiage classroom in turn stimulates cognitive development (see also Davis, 1992, p.15 and Jones, 1999, pp.131-2). Older children have an opportunity to be an 'expert' or at least a more knowledgeable or experienced peer and this 'peer tutoring' has beneficial effects on their own learning (Jones, 1999, p.132; Marion Leier, multiage teacher, personal communications, 1998-2001).
- 'no academic disadvantage' — the conclusion of Anderson and Pavan (1993, p.44) that 'comparisons of graded and nongraded schools using standardized achievement tests continue to favor nongradedness' may hold true for genuine nongradedness. For the more-encompassing 'multiage' class, the less conclusive finding of 'no consistent effect on academic achievement' (Pratt in Fogarty, 1994, p.50) or 'simply no worse, and simply no better' (Veenman, 1995, p.367) is more likely to be widely accepted.

Research findings for multiage classes: social/emotional development

Social interaction, as mentioned above, is beneficial for cognitive development. It is also crucial, of course, for social/emotional development. Research findings related to the social/emotional development of children in multiage classes are generally more clearcut than those related to academic achievement, with studies consistently showing:

- an overall benign effect on mental health
- an improvement in social/emotional development
- an increased liking for school.

Even researchers who claim no real difference between single-grade and multigrade or multiage classes find the results for noncognitive or affective variables to be higher than for cognitive variables (Veenman, 1995).

Children in multiage classes have friends across a wider range of ages than children in a 'straight' class. There seem to be fewer isolates in these more diverse groups (Pratt in Fogarty, 1994, p.49; Viadero, 1996, p.2) and thus a greater liking for school across the population. Increased classroom harmony is both a cause and an outcome of this increased liking for school and a further consequence is a reduction in aggression and competition (Lodish in Fogarty, 1994, p.38; Pratt in Goodlad & Anderson, 1987, p.xxiii; Jones, 1999, p.132; Katz et al., 1990).

The opportunity for older students to act in a leadership role leads to nurturing behaviours and contributes to classroom harmony. The opportunities for less popular students to take on these leadership and nurturing roles (eg when they have a particular experience because of a previous year spent in the class) are greater than they would be in a class of similar-aged children (all with the same experience) and their socialisation skills are therefore developed (Chase & Doan, 1994). On the other side of the interaction, younger students engage in a wider range of social experiences and their development is also enhanced.

Research findings for multigrade classes

As indicated above, a distinction between multigrade and multiage is not always made by authors, and teachers in a multigrade classroom sometimes divide the children into same-grade groups and sometimes teach them in a more truly multiage manner. Where authors do specify the type of multiage structure it is possible to discern some differences in the research findings, though these are sometimes differences of degree rather than kind. In general, there does not seem to be a difference in the academic achievement of children in single-grade classes and multigrade classes (Watson et al., 1995, pp.135-6; Veenman, 1995; Curriculum Directorate, NSW DET, 1997, pp.139-40) though some authors claim the net result of 'no difference' is caused by countervailing forces — a 'positive' effect caused by selection bias ('good' teachers and students) and a 'negative' effect caused by the extra demands on a multigrade teacher and reduced time for direct instruction to each group within the class (Mason & Burns, 1996; see also Mason & Good, 1996).

There also seems to be a beneficial effect on students' social/emotional development and liking for school in multigrade classes (Pratt, 1986; Watson et al. 1995; Nielsen, 1995, p.15) but the positive result for affective factors is greater in multiage classes than multigrade classes (Veenman, 1995).

The results for multigrade classes are less clearcut than for multiage classes (Mason & Good, 1996, p.237). The lack of clear definition of 'multigrade' can partly explain this finding. Quality of instruction will always be more important than the type of class structure. Many multigrade classes are in practice two or more single-grade classes with less direct instruction per class from the teacher and more individual/independent work by the students. In these situations, Gutiérrez and Slavin's (1992) finding of no significant beneficial effect on achievement when students have individualised programs may be particularly relevant.

Other factors affecting results in multigrade classes are:

- selection of students. Students in multigrade (especially composite) classes are often selected on the basis of their independent work habits. Another common arrangement is for the brighter students of the lower grade to be combined with the slower students of the next grade (in a misguided attempt at creating a more homogeneous group).
- selection of teachers. Sometimes more experienced teachers are deliberately selected to teach multigrade classes since these classes are seen as more difficult because of the extra planning and organisation required. In other cases, less experienced teachers find themselves with multigrade classes — this is a common occurrence with novice teachers being sent to hard-to-staff rural schools, for example (see King & Young, 1996).
- 'teacher burden' — the relationship between curricular complexity and student load (Nielsen, 1995, pp.12–13). A class with two grades is not as difficult to plan for as a class with four grades (curricular complexity) and fewer students are easier to manage effectively than a large number (student load). A large class covering four or more grades is the most difficult, i.e., it has the highest 'teacher burden'.

Possible reasons for positive findings in relation to multiage classes

Multiage classes are usually formed by choice. Teachers who favour such classes have a philosophical commitment to the perceived advantages of such classes. It is easier to feel confident about suggesting an explanation for the positive findings in relation to multiage classes than it is to broaden the explanation to include multigrade teachers and classes. The following discussion therefore refers to multiage classes.

Teacher factors

Any or all of the following factors relating to teachers can be relevant to the research findings which favour multiage classes:

- change in teacher attitude. It is possible in a single-grade class to maintain delusions of homogeneity; it is not possible to assume homogeneity in a multiage class with its broader range of development.
- change in teaching methods. In order to cater for the diversity in a multiage class a teacher must utilise strategies which allow a range of children to participate. It would be a planning and implementation nightmare to have individualised programs for all students, and such an approach would be anathema because of the lack of social interaction that would occur. So while teachers of multiage classes must differentiate the curriculum, they do so by utilising frequent and flexible grouping, and choice. Sometimes the groups are ability groups but interest groups, friendship groups, and other heterogeneous groups are also commonly used. Sometimes students are allocated to particular groups and sometimes they make their own decisions about which group is most suitable for a particular learning experience. Multiage teachers frequently allow their students to engage in common open-ended tasks, where the outcomes for each child may be different (eg artwork, story writing). Alternatively, a teacher may form three broad ability groups who work on different but related tasks, often after a common introduction and then 'peeling off' by each different group (for a description of these and other techniques, see Ball, 2000). There is typically a focus on integrated curriculum and/or theme-based approaches to learning (Kovalik, 1994;

this is not true of multigrade teachers, see King & Young, 1996). There is also a focus on the children developing generic skills, such as the ability to find and sort information, to work cooperatively, to communicate in a range of forms, and to work independently (Bingham, 1995; Kasten & Clarke, 1993; Rathbone et al., 1993; Stone, 1996). The necessity for children to learn these generic skills has often been attested (see, eg, Beare, 2001, p.3). Social/emotional development is seen as crucial to the effective functioning of the class and a lot of effort is spent building a sense of community (a 'family of learners'; Kasten & Clarke, 1993). Flexible grouping is paramount and while larger 'home' groups or 'tribes' (Gibbs, 1995) are often formed for long periods such as a term, smaller groups are changed frequently depending on the learning needs of the children and the outcomes desired by the teacher. Student choice – negotiated curriculum – is common, sometimes achieved through the Project Approach (Katz and Chard, 2000; Lloyd, 2000).

- 'better' teachers. Principals often assign their 'best' teachers to multiage classes, including composite and multigrade classes (Veenman, 1995). The workload is seen as greater in such a class and for the class to be successful, the teacher has to have high energy levels and be an excellent planner. Where they are relevant, these reasons obviously contribute to the positive findings in relation to multiage classes.
- teacher continuity is a necessary component of successful multiageing (Mulcahy, 2000). Teachers stay put and children cycle in and out of the class (olders leaving and youngers arriving), with approximately two-thirds of a 'three-grade' class being common over consecutive years. This stability in class membership combined with the long-term build-up of the teacher's knowledge of the students means it is easier for the teacher to plan for the particular learning needs of individual children. It also means real teaching and learning can start from day one, with more time available to be spent on curriculum while the 'returning' members of the class help the new students learn the routines. Children who were youngers or middles the previous year move up to become olders and gain a sense of responsibility.

Support factors

This stability of a class over several years has other beneficial effects:

- Parent support. Parents who have built up a relationship with the teacher can develop it further over three years. Parental support is recognised by multiage teachers for its importance in establishing a classroom which is a positive learning environment. Parent and community partnerships are encouraged in all schools because support from outside school has long been recognised as playing a large role in a child's success at school (eg Young, 1994, p.1). Students are frequently allocated to multiage classes by parental choice, especially when multiage and same-grade classes exist in the same school. Parents are not usually offered choice for same-age classes. In some schools there is a waiting list for the multiage class or classes, so if parents are successful in gaining a place for their children, then they are more likely to play a supportive role in the classroom, especially if they have younger children who could be offered a place in the future. This does not always mean they are able to be a physical resource in the classroom but in general where their participation is feasible (taking into account work commitments, pre-school-age children, distance of the home from the school) they are often active members of the class.
- Collegial support. Team-teaching and collaborative planning are common arrangements in multiage classes except in schools where the teachers are isolated, either because the school is small or because they are the only multiage class in the school or at a particular level of schooling.
- System support. There must be support from the Principal for the class to exist, and from the parents if it is to continue. At a wider remove, support must always exist, at least nominally, from the relevant Departmental authority – the District Office and the Department of Education. In Queensland, for example, multiage teachers have been successful in convincing Education Queensland of the necessity for prospective teachers to be alerted to the fact that a particular posting is to a multiage school and to register in writing their agreement to teach in such a school (with the implication that they will accept the philosophy of the school). There is a body of literature professing that without this wide-

ranging support network, permanent change is unlikely to be maintained (eg Sarason, 1996; Maehr & Midgley, 1996).

- Organisational support. It is common for people with particular needs or experiences to form support groups and teachers are no exception. Several organisations exist specifically to give help to multiage teachers. Within Australia, an active support group is the MultiAge Association of Queensland (MAAQ). Internationally, SDE (originally the Society for Developmental Education, now renamed Staff Development for Educators) and the Association for Supervision and Curriculum Development are well-established support organisations.

Student factors

Student choice, frequently changing groups amid the stability of longer-term larger groups, more independence, more movement around the classroom, a wider choice of friends, more meaningful learning in an enriched environment, less pressure to achieve within a certain time, the ability to revise more frequently and therefore to consolidate learning – all these factors can explain why students in a multiage class like school more and why their social/emotional development is positively affected.

Irregular attendance at school has been identified as a significant factor in the lack of achievement of particular students (Purnell et al., 2000). When the classroom is a productive and happy learning environment, when the teacher is a committed and successful professional, when there is support from parents and the community, and when the children like going to school, attendance is not a problem. If the classroom is a place where the children can satisfy their needs for belonging, fun, freedom and power (Glasser, 1990), attendance is not a problem.

Children may like their class better when age is not seen as a dominant factor. Uneven patterns of development are common in children and they are much more obvious when everyone is the same age and therefore nominally at a similar stage of development. When diversity is the norm and is in fact celebrated in the classroom, self-esteem improves because children are less likely to feel like 'misfits' since there is no 'norm' (Mulcahy, 2000; Stone, 1996). Children with particular problems do not stand out in the same way in a multiage class because the times when they are grouped to work with younger students are balanced by times when they are able to be the more experienced or knowledgeable student. These sorts of opportunities usually do not arise in a same-age class, certainly not with the same frequency or for such a cross-section of students. In a composite and some multigrade classes, age and grade are emphasised; jealousy and other competitive emotions can, directly or indirectly, be significant.

Children whose development in a particular area is not as great as that of other members of the class have opportunities for extra help within the context of normal classroom interaction and organised cooperative work. Vygotsky writes of the Zone of Proximal Development, that area where a child cannot learn alone but can learn with the assistance of someone more knowledgeable. In a multiage classroom the opportunity for more 'scaffolding' from other class members is continual and opportunities to find someone more knowledgeable are numerous.

The ability to absorb and cater for developmental differences has a further beneficial effect for teachers of a multiage class – it is easier to cater for brighter children as well. If there are several children with outstanding ability in a particular area, they can sometimes be grouped together for extension and stimulation. Since many children have high ability in some areas but not in others, they can be catered for more easily in a multiage class because they do not have to work alone or move to a 'higher' class for certain times of the day, an arrangement which is common in same-age classes. This movement to other classes can be disruptive to a child's learning because timetabling is often different for different stages in the school. For example, in some schools Stage 2 children do English till recess and Maths after recess, while Stage 3 children do the reverse. If a child in Stage 2 is accelerated into a Stage 3 class for Maths groups, then the child misses out on the English activities being done in the Stage 2 class and has to catch them up individually when the rest of the class does Maths. This example has been simplified for the purpose of clarity but versions of this example exist in many schools. In a multiage class, the diversity and the teaching practices make it more likely that

a child's needs can be catered for within the class, without the problems of liaison, coordination and timetable reshuffling.

The finding that high ability students do better when they are grouped with academic peers for at least part of each day has often led to calls for segregated 'streamed' classes, but multiage structures can provide a mechanism for such grouping to occur provided a cluster group of such students (at least a pair) can be placed in the same class (Hoover et al., 1993). It is somewhat ironic that a philosophical underpinning of 'nongraded' and genuine 'multiage' is of inclusion rather than segregation, with students not being labelled by grade or achievement level, yet a real academic advantage can occur if a number of students in a multiage class are ability grouped for one or perhaps two subjects.

Implications for rural schools

Because teachers of a multiage class tend to have a philosophical commitment to such classes and to an approach based on continuous development of their students, the results from studies of such classes are less problematic than those from multigrade classes where far less certainty prevails in terms of knowledge of the teacher's teaching style and classroom practices. In examining the potential benefits of multiage classes for rural schools, then, any predictions must be qualified by a statement that the rural teacher must adopt a genuinely multiage approach rather than just have a class of mixed-age children.

Can classrooms taught in a genuinely multiage fashion be a 'good thing' for rural schools? The answer is, 'It depends'. As stated at the outset, 'rural schools' vary enormously and what will work in one rural situation will not necessarily work in another.

Philosophical commitment

There is no inherent reason why any teacher cannot develop a philosophical commitment to multiage teaching and share the beliefs of multiage teachers (Richardson, I. & Johnson, T., 1998, p.5). Indeed, experience in teaching a mixed-age group of children in a composite class has been shown to be positively related to a teacher's attitude to a range of variables, such as beliefs about the benefits of a composite class (Watson, 1995, p.137; Lloyd, 1997). Exposure to the philosophical underpinnings of multiage as an approach to classroom structure can be provided through initial teacher education, induction programs or inservice courses. To the extent that a teacher accepts the philosophy of multiage, this teacher can, in rural schools with mixed-age classes, use or adapt the methods of multiage teaching.

Change in teacher's methods

There is no inherent reason why a teacher in any rural school, however small, cannot adopt an approach reflecting continuous progress for each student and developmentally appropriate curriculum. The development of a 'learning community', the use of integrated or theme-based learning, the encouragement of social interaction and the development of generic skills are all examples of 'best practice' which *any* teacher can implement. There are implications for the professional development of teachers and possibly for resources (such as computer availability) but the inability to implement a 'multiage approach' is not directly related to the size of the school.

However a small enrolment will mean that there is not a full range of diversity and this may affect the potential for frequent and flexible grouping. For example, there may not be enough 'similar' children who can be paired when this would be desirable. There may be certain ages/stages of children missing altogether. There should still be youngsters and elders, but with only one or a few in any possible category (such as 'social maturity', 'reading', 'leadership skills', or 'mathematics') then the opportunities for successful grouping, peer learning, and social interaction may be reduced. In this case the benefits of multiage will not be so obvious. Indeed, one multiage teacher claimed the reduction in her class size from 30 students to 20, and the dropping-off altogether of Kindergarten, made the class less successful because of the reduced diversity (Mary Araujo, 1997, personal communication).

Teacher continuity

This variable is more problematic for rural schools. One of the problems facing many rural communities is the difficulty in attracting and keeping teachers. High staff turnover is the norm in many rural areas. This is one situation where the differences in rural schools are fundamental to the possibility of successful implementation of multiage practices. One of the main reasons for the success of multiage classes, I argue, is the stability of these classes, where the teacher remains for the three years (perhaps more) that a child is in the class. In some rural schools teacher continuity is not a difficulty but in many other areas, it is a huge problem.

Choice of teacher

In addition to high teacher turnover in many rural areas there is often a high proportion of inexperienced teachers in rural schools, especially in those areas seen as more isolated or less desirable (Clark, 1990). In very small one- and two-teacher schools lack of experience may not be an issue, as these schools may be staffed by senior people, but in the 'middle' category of rural schools and in many central schools, there may be neither continuity nor experience in the teaching staff. The positive benefits found in many studies of multiage and multigrade classrooms may stem from the choice of teacher for these classes (Veenman, 1995; Curriculum Directorate, NSW DET, 1997, pp.9-10). If a Principal has no choice because there is only one teacher for a number of grade levels, and if this teacher is an inexperienced teacher (possibly and commonly on his or her first posting), then it is perhaps unrealistic to expect the benefits espoused for multiage classes to be immediately obvious or even to develop at all.

Support networks in rural areas

When schools find it difficult to attract teachers at all, when the turnover is high, when the total amount of experience in the school is very small, when mentors or experienced senior teachers are few and far between, when living in the community is a 'learning experience' or even a 'culture shock' for teachers (King & Young, 1996, p.30; Arnold, 2001) then the process of establishing and developing support networks is a challenge. Beginning teachers commonly complain of this lack of support – complaints include lack of time for learning how to plan and program, lack of cooperative planning and teaching, lack of a mentor, lack of a whole-school policy in various areas (but frequently in the area of behaviour management), ignorance of how to establish networks in the local community, fear of establishing these networks or of 'doing the wrong thing' (for example, in highly indigenous communities) (personal communications).

For young and/or inexperienced teachers, many of whom move alone to their new place of residence, the lack of a support network of family and friends can also be significant (Clark, 1990; Higgins, 1995; see also Boylan et al., 1993, for a discussion of factors relevant for retention of teachers in rural areas).

Most schools do provide an induction program for new teachers but the reality for many teachers is that they miss out on these programs because of arrival at the school at some point after the beginning of term and after the induction program has been held. Theoretical support is not always translated into an actuality. When schools also have trouble attracting teachers for executive positions, then the lack of support for new teachers is even more palpable. Sometimes they are completely alone.

Most multiage teachers agree that a strong support network is crucial (Rathbone et al., 1993, Ch.2). Many exist without this network in their school – that is, no other teachers teaching multiage or teaching the same nominal grade level(s) – but most claim that support from parents, the community, or wider 'official' support (such as from the Department) are necessary. With the spread of technology teachers are able to access support through the internet, both websites and listservs. A dynamic listserv exists for multiage teachers, and also for Project Approach teachers (see the References).

In the case of multiage, there are other support networks available. A national organisation which began in Queensland, the Multi-Age Association of Queensland (MAAQ), for example, provides support for teachers and schools on their journey towards 'true multiage teaching'. Membership of the organisation gives support through receipt of its journal *Free to Learn* and newsletters, workshops, conferences, access to resources such as books on teaching multiage, and a network of sympathetic colleagues who can be contacted for advice. Many rural schools are located within commuting distance of a multiage teacher or school, and visits/support can be arranged through the organisation. For many teachers either contemplating multiage or finding themselves expected to teach multiage, the support of an organisation such as MAAQ is crucial (Smith et al., 1996, p.13).

Conclusion

Some of the benefits of multiage teaching can be expected in any rural school where the teacher adopts a 'developmentally appropriate' approach. But the number of students in any class directly affects the diversity and therefore the opportunity to form different groups in a flexible, needs-based manner. While the adoption of a multiage philosophy (and its translation into 'best practice') should lead to a 'learning community' and to contented students who learn and make educational progress, there may need to be more individualised teaching than in a larger class where more use can be made of older or more knowledgeable students. Even in a small class, however, there will be opportunities for students to take on leadership and nurturing roles.

Support from parents and the local community is often claimed to be strong in rural areas (eg Arnold, 2001, pp.34, 35). Therefore community support should not be a problem in a rural school provided the teacher can educate the parents on the benefits and successful practices of multiage classes (and can deliver the results!). Support from other teachers, the District Office, mentors and executive staff will remain a problem in many rural areas wherever the schools are seen as undesirable locations and are difficult to staff, especially with senior and experienced personnel. Support from organisations such as MAAQ is always available but it is support at a distance (email, newsletter, conference).

The recent inclusion in syllabuses of 'stage' outcomes (where each stage represents two years of schooling) may prove to be the single most influential factor in encouraging the adoption of successful multiage practices into primary classrooms (see, eg, Plant, 1999). To the extent that many rural classes are already mixed-age classes, the changes required to move towards stage (or multi-stage) classes are not necessarily particularly daunting.

The Commonwealth Schools Commission report 'Schooling in Rural Australia' identified the 'need for preservice teachers to experience and observe teaching strategies and processes appropriate to rural schools' (cited in King & Young, 1996, p.30). The inclusion of multiage strategies and processes in teacher education programs will perhaps go some way towards fulfilling this need.

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