

## Introduction

Multi-age education is one strategy that schools can consider in providing quality education for students. In this educational approach, students of different age groups, spanning more than one year level, are placed together in a single class.

This resource provides a summary of research on multi-age education to support school leaders, educators, parents and carers looking for further insights into this approach, including:

- common characteristics of multi-age classrooms, including curriculum and pedagogy
- terminology and labels used in multi-age education
- potential opportunities and challenges associated with multi-age education
- suggestions for consideration and reflection based on the research.

## Research articles

This section gives a summary of research articles on multi-age education. School leaders and educators might use the research to reflect on and adapt practices in their school or classroom. Parents and carers might use the research to gain deeper insights into multi-age educational approaches.

Table 1: Summary of research articles

Article	Description
<b>Effects of a Nontraditional Multi-Age Learning Environment on Academic and Social-Emotional Learning: A Case Study</b> Black, N 2022 (MAEd thesis).	<b>Summary</b> Black's case study (2022) focuses on a small, suburban elementary school in the United States of America, with students in Years 2–4 in multi-age classrooms. Black examines the effectiveness of a pilot program that focuses on personalised learning, through the research question: <i>How are struggling, elementary-aged students' academic and social-emotional learning impacted by a non-traditional, multi-age learning environment?</i>  Black uses mixed methods to gather data on students' academic achievement and social-emotional learning, as well as their perceptions of the multi-age learning environment. Results show the importance of a child-centred approach that supports students to set achievable individual learning goals and self-reflect on progress.  The author also reviews literature and notes some benefits of multi-age learning. These include reported benefits to connection and relationships, and to a better sense of student progress as the same teacher remains with students for more than one year. Black concludes by noting the importance of adequate teacher training for the success of multi-age classrooms.  <b>Consideration and reflection</b> Schools using a multi-age learning environment may consider how: <ul style="list-style-type: none"><li>• students can set achievable goals and track their progress effectively</li></ul>

Article	Description
	<ul style="list-style-type: none"> <li>• a sense of continuity and relationships between students and teachers is established</li> <li>• they can invest in professional learning programs and ongoing training to equip teachers with the knowledge and tools to effectively facilitate learning.</li> </ul>
<p><b>Parents' views of composite classes in an Australian primary school</b></p> <p>Cornish, L 2006, <i>Australian Educational Researcher</i>, vol. 33, no. 2, pp. 123–42.</p>	<p><b>Summary</b></p> <p>Cornish (2006) explores parents' views about composite classes in a large primary school in New South Wales. The classes in the school are usually single grade. However, the school forms several composite classes (students from two grade levels in the one class) each year due to student enrolment and for increased collegial support.</p> <p>The study investigates parents' opinions about the effectiveness of composite classes in terms of student learning and socialisation, at the start and end of the year. Parents express concerns related to the perception that composite classes are less desirable to the standard single-grade classes. Survey results indicate parent beliefs include issues of:</p> <ul style="list-style-type: none"> <li>• grade identity</li> <li>• perceived selection bias with certain teachers and children selected for composite classes</li> <li>• lack of teacher experience in teaching composite classes</li> <li>• lack of parental understanding of composite teaching methodology.</li> </ul> <p>Parents also generally express the belief that certain year levels should be single grade, such as Kindergarten (the first year of formal schooling in New South Wales) and Year 6.</p> <p>Upon reviewing parent beliefs and attitudes at the end of the schooling year, the author finds that approximately one third of parents with a child in a composite class have positively changed their minds. The most common reasons are that:</p> <ul style="list-style-type: none"> <li>• their child has progressed well academically or has had a positive experience</li> <li>• parents are happy with the teacher</li> <li>• the child has benefited from the range of ages in the class.</li> </ul> <p>The most common reason for a negative shift in parent attitudes and beliefs is friendship or social concerns. Students often choose most of their friends from within their class, resulting in situations where students in composite classes find themselves with only a few peers from their year level.</p> <p>Cornish calls for further research over a longer period to better understand parent views of composite classes.</p> <p><b>Consideration and reflection</b></p> <p>The article provides practical applications that schools may consider to address parents' and carers' views about composite classes, including to:</p> <ul style="list-style-type: none"> <li>• provide clear and transparent communication to parents and carers about the benefits and methodology of composite teaching</li> <li>• ensure that teachers in composite classes receive adequate training and support to effectively teach in this context</li> <li>• foster positive relationships between teachers and parents or carers, and encourage open dialogue to address any concerns or misconceptions</li> <li>• support students' socialisation and friendship-building within composite classes by facilitating opportunities for interaction and collaboration across year levels.</li> </ul>

Article	Description
<p><b>Multiage Classes - What's in a Name?</b></p> <p>Cornish, L 2010, <i>Journal of Multiage Education</i>, vol. 4, no. 2, pp. 7–11.</p>	<p><b>Summary</b></p> <p>Cornish (2010) explores the terminology and labels used in multi-age education and how they can influence perceptions and attitudes towards this educational approach.</p> <p>Cornish discusses several terms that are used interchangeably with multi-age classes, including composite, mixed-age, mixed-grade, multi-level, multi-program, combination, stage, non-graded classes and family grouping. Cornish notes that each of these terms emphasises different aspects of the approach, such as the developmental continuum, the heterogeneity of the groupings and the sense of community that is fostered.</p> <p>The author suggests that the terminology used to describe multi-age classrooms is important, as it can affect how the approach is perceived and implemented. Cornish proposes that the term multi-age is the most accurate and descriptive, as it emphasises the range of ages in the classroom and highlights the developmental continuum that students are progressing along. Cornish advocates for clear and consistent use of the term multi-age to promote a better understanding of the benefits and challenges of this approach.</p> <p><b>Consideration and reflection</b></p> <p>Stakeholders may consider the terminology used to describe multi-age educational approaches, as it reflects specific implications of the aspect being addressed. A clear understanding of terminology also plays a role in gaining a better understanding of the benefits and challenges of multi-age education.</p>
<p><b>Multi-age Teachers' Beliefs and Practices</b></p> <p>Hoffman, J 2003, <i>Journal of Research in Childhood Education</i>, vol. 18, no. 1, pp. 5–17.</p>	<p><b>Summary</b></p> <p>Hoffman (2003) explores the beliefs and operational practices of four Years 3–5 teachers in multi-age classrooms in the United States of America. Based on interviews with teachers and observations of classroom practice, the study finds that the teachers believe they need to know their students well, including personalities and interests, to facilitate learning. They believe this is best achieved through the longer time together in multi-age classes.</p> <p>The observed instructional and organisational practices of the teachers encourage student-directed teaching through:</p> <ul style="list-style-type: none"> <li>• flexible grouping</li> <li>• differentiation</li> <li>• social collaboration</li> <li>• student choice.</li> </ul> <p>Content is organised so that connections can be made with the content areas and to students' lives and interests. Students also have opportunities to take the content in different directions.</p> <p>Hoffman suggests broader observational research into the instructional and organisational practices used in multi-age classrooms to determine their effect on learning. The author also suggests further research should investigate the use of team teaching in multi-age classrooms and its potential to help teachers meet students' needs.</p> <p><b>Consideration and reflection</b></p> <p>Teachers in multi-age classrooms might read the article to reflect on their own beliefs and practices. Educational researchers may consider conducting further observational research to examine the impact of instructional and organisational practices in multi-age classrooms on student learning.</p>

Article	Description
<p><b>A Collaborative Approach: Assessing the Impact of Multi-Grade Classrooms</b></p> <p>Proehl, RA, Douglas, S, Elias, D, Johnson, A &amp; Westsmith, W 2013, <i>Journal of Catholic Education</i>, vol. 16, no. 2, pp. 417–40.</p>	<p><b>Summary</b></p> <p>The authors (Proehl et al. 2013) investigate how a small Kindergarten–Year 8 school in California implemented a multi-grade classroom in response to a significant decrease in student enrolment. The authors analysed school-level data and surveyed parents and teachers to gauge any impact of the shift to multi-age education.</p> <p>The article indicates several positive outcomes, including:</p> <ul style="list-style-type: none"> <li>• stronger relationships through a family atmosphere that allows teachers to establish deeper relationships with their students over a longer period of time</li> <li>• development of peer relationships and leadership skills among students, with younger students looking up to and relying on older students</li> <li>• improved student behaviour, which the teachers attributed to the students feeling comfortable and safe in the classroom</li> <li>• an awareness of the need for differentiated instruction.</li> </ul> <p>The survey results also indicate challenges when shifting to multi-age classrooms, including difficulties with the change in practice and curriculum delivery. For example:</p> <ul style="list-style-type: none"> <li>• one teacher indicated initially feeling uncomfortable as they had received limited professional development</li> <li>• teachers commented on increased workloads due to differentiation for students at different year levels.</li> </ul> <p><b>Consideration and reflection</b></p> <p>Parents and carers, educators and school leaders can review the article to identify and discuss the opportunities and challenges associated with shifting to a multi-age educational approach. They may consider how stakeholders can address potential challenges in their specific context.</p>
<p><b>Multi-age Education: An Exploration of Advantages and Disadvantages through a Systematic Review of the Literature</b></p> <p>Ronksley-Pavia, M, Barton, GM &amp; Pendergast, D 2019, <i>Australian Journal of Teacher Education</i>, vol. 44, no. 5, pp. 24–41.</p>	<p><b>Summary</b></p> <p>Ronksley-Pavia, Barton and Pendergast (2019) review the literature on multi-age education. The review uncovers several terms that are used in the literature to describe mixed-aged grouping, including multi-age, composite, multi-grade, multi-stage, vertical, family and heterogenous grouping. The review finds that this inconsistent use of terminology across empirical studies has led to complex conversations surrounding multi-age education. It reiterates the views of Cornish (2010), who stresses the need to have clearer definitions and more consistent use of terminology, stating that this can only benefit multi-age and multi-grade schools.</p> <p>Whether multi-age grouping is due to necessity or pedagogical choice, the literature review identifies common characteristics of multi-age classrooms, including:</p> <ul style="list-style-type: none"> <li>• a mixed-age student population</li> <li>• flexibility in grouping based on student abilities and needs</li> <li>• multi-level instruction where students are taught at their own pace and level</li> <li>• individualised learning, with teachers providing personalised support and feedback to each student</li> <li>• peer mentoring and collaboration, where older students can help younger students and students of different abilities can work together</li> <li>• active and hands-on learning experiences with a focus on exploration, inquiry and problem-solving</li> <li>• differentiated instruction, tailored to meet the individual needs and abilities of each student</li> </ul>

Article	Description
	<ul style="list-style-type: none"> <li>• student-centred learning where students take ownership of their learning and are encouraged to set goals and monitor their progress</li> <li>• an integrated curriculum where different subject areas are taught in a cross-disciplinary way, and students are encouraged to make connections</li> <li>• collaborative learning through small group work on tasks and projects.</li> </ul> <p>The authors then explore opportunities and challenges of multi-age education. Opportunities include:</p> <ul style="list-style-type: none"> <li>• promotion of academic growth by allowing students to learn at their own pace and through opportunities for peer tutoring and collaboration</li> <li>• promotion of positive social skills and relationships and opportunities to develop empathy and understanding of different perspectives</li> <li>• improved teacher–student relationships as teachers get to know their students over a longer period of time, which creates a sense of community within the classroom</li> <li>• greater flexibility in grouping students based on their abilities and needs, which can lead to more effective differentiation and personalised learning.</li> </ul> <p>Challenges include:</p> <ul style="list-style-type: none"> <li>• uneven academic progress because students are at different stages of learning and development</li> <li>• difficulty in managing a wide range of student abilities</li> <li>• the need for specialised teacher training to effectively manage and teach students with varying levels of ability</li> <li>• potential for social conflict between students of different ages, particularly if there is a significant age gap.</li> </ul> <p><b>Consideration and reflection</b></p> <p>This literature review can inform educators, researchers and policymakers about the characteristics of multi-age classrooms and the potential benefits and challenges associated with multi-age education. Stakeholders may use the information on identified challenges to consider ways to address potential difficulties.</p>
<p><b>A Comprehensive Look at Multi-Age Education</b></p> <p>Saqlain, N 2015, <i>Journal of Educational and Social Research</i>, vol. 5, no. 2, pp. 285–90.</p>	<p><b>Summary</b></p> <p>Saqlain (2015) reviews research studies to explore multi-age education and its effectiveness in improving learning outcomes. The article examines the history of multi-age teaching and identifies benefits and challenges to this approach.</p> <p>The author highlights that multi-age education has a long history and has been implemented in many countries. It is described as an economical approach to education, particularly in rural areas where teacher recruitment and retainment can be a challenge and student enrolment numbers tend to be low. Saqlain reports that various research studies suggest multi-age education is equally effective when compared to single-grade education in terms of academic performance, and perhaps better in terms of social learning.</p> <p>Across the research the author reviewed, the benefits of multi-age education include:</p> <ul style="list-style-type: none"> <li>• enhanced social learning, as students learn from each other and form positive relationships across age groups</li> <li>• a flexible learning environment that allows for personalised instruction and encourages students to take ownership of their learning</li> <li>• promotion of empathy, tolerance and respect for diversity, as students interact with peers of different ages, abilities and backgrounds.</li> </ul>

Article	Description
	<p>Saqlain also identifies challenges to multi-age teaching in the literature and emphasises the evidence that the success of multi-age education greatly depends on the teacher. Saqlain notes that multi-grade teaching is more difficult than single-grade teaching due to administrative, instructional and geographical considerations. This is particularly evident in rural and remote settings.</p> <p>The author's conclusion highlights the potential of multi-age education to improve student outcomes and emphasises the importance of involvement from parents, educators, policymakers and the local community. Saqlain also notes that the cost-effectiveness of this approach can address teacher shortages in rural and remote areas. However, successful implementation relies on various factors, such as teacher training, availability of learning materials, community support and appropriate planning.</p> <p><b>Consideration and reflection</b></p> <p>When considering a multi-age approach to education, stakeholders can:</p> <ul style="list-style-type: none"> <li>• recognise the importance of involving parents and carers, educators, policymakers and the local community in implementing multi-age education</li> <li>• ensure adequate teacher training, community support and comprehensive planning.</li> </ul>
<p><b>The Multi-Age School Structure: Its Value and Contributions in Relation to Significant Learning</b></p> <p>Shalom, M &amp; Luria, E 2019, <i>Educational Practice and Theory</i>, vol. 41, no. 1, pp. 5–21.</p>	<p><b>Summary</b></p> <p>Shalom and Luria (2019) explore the benefits and contributions of multi-age education, particularly in relation to significant learning. They construct a theoretical framework that draws on the ideas of constructivism, sociocultural theory and the Montessori approach to education. They argue that significant learning occurs when students, who are not necessarily of the same chronological age, are actively engaged in the construction of their own understanding. Multi-age classrooms provide the opportunity to situate learning in social and cultural contexts.</p> <p>The authors conduct a case study of a multi-age school in Israel. They investigate students' and teachers' views about the multi-age learning structure and the effect on significant learning experiences among students. Data is collected through observations, interviews and a research log. The researchers find that adaptive teaching, which relies on strategies such as peer learning and mediated teaching, contributes to providing for student needs. The adaptive nature to individual student needs provides a base for significant learning.</p> <p><b>Consideration and reflection</b></p> <p>The benefits and contributions of multi-age schooling call for teachers to implement an adaptive teaching approach and to situate learning in social and cultural contexts that are meaningful to their students.</p>
<p><b>Multi-age a Model of Educational Reform - or Invention?</b></p> <p>Stone, SJ 2010, <i>Journal of Multi-age Education</i>, vol. 4, no. 1, pp. 13–18.</p>	<p><b>Summary</b></p> <p>Stone (2010) examines the multi-age education model and discusses whether it is a reform or an invention in the field of education. Stone argues that multi-age education is a unique and creative approach that has the potential to significantly improve student learning and development, with a focus on personalisation and individualised learning.</p> <p>According to Stone, the multi-age system is a student-centred approach and has the following features:</p> <ul style="list-style-type: none"> <li>• a developmental approach, where students progress through a continuum of learning, focusing on their own goals</li> <li>• heterogeneous grouping, in which students of different ages and abilities are grouped together, allowing for peer tutoring, cooperative learning and individualised instruction</li> </ul>

Article	Description
	<ul style="list-style-type: none"> <li>• long-term relationships, as students stay with the same teacher and classmates for multiple years, fostering a sense of community and continuity</li> <li>• big concepts, as the curriculum focuses on big concepts and skills are taught in context</li> <li>• student choice and autonomy in learning, which allows students to pursue their interests and passions</li> <li>• multiple assessment strategies, where assessment is conducted through a variety of methods, on a continuous basis, including teacher observation of student work, portfolios and authentic experiences.</li> </ul> <p><b>Consideration and reflection</b></p> <p>This article presents practical ideas for teaching and learning in multi-age classrooms. Stakeholders might consider these teaching and learning approaches in their contexts and reflect on the features outlined in the article.</p>

## References

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