

Three-Year Age-Spans in Montessori Classrooms: The Benefits of a Full Upper Elementary cycle

Key Points:

- Montessori education is uniquely designed to maximize the benefits of seamless educational pathways designed in 3-year increments.
- Learners benefit academically and socially from three –year mixed-age groupings.
- It is accepted practice for public Montessori schools to maintain the integrity of three-year cycles through the 6th grade.

“You cannot imagine how well a younger child learns from an older child; how patient the older child is with the difficulties of the younger... I have often stopped to watch them and thought; is it not a waste of time for the older child? But... there is nothing which makes you learn more than teaching someone else.”

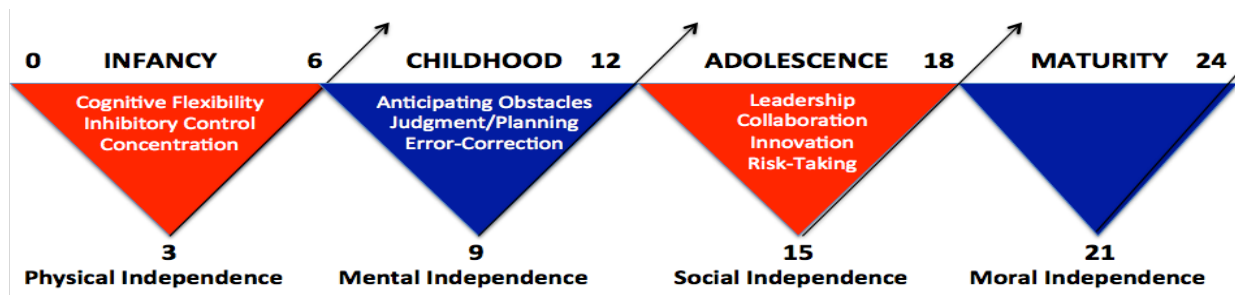
—Maria Montessori¹

Public Montessori schools often encounter a mismatch between their accepted grade spans and those used in the rest of the district. Grade span configurations for schools vary by school district and even within many districts. The research is mixed in claiming any definitive “best” configuration; some studies advocate for K-8th elementary schools, others for K-6th². Others conclude that factors besides grade span configuration have the most impact on student achievement, and posit that school districts may use the models that best fit their community culture and the needs of the district.³

Rationale: Respecting the Rhythm of Human Development

The Montessori model is uniquely designed to maximize the benefits of a PK3-6th configuration comprised of three distinct levels or developmental stages that each span a three-year age range.

Rather than viewing human development as linear, the Montessori approach recognizes a series of distinct developmental stages, with children exhibiting different characteristics and having different educational needs at each stage.



The second stage of development, what Montessori identified as “childhood,” lasts from age six until age twelve. As students anticipating but not yet entering adolescence, eleven-year-olds benefit from being the oldest rather than the youngest in their peer group. Around age twelve, a developmental shift occurs as the brain enters a period of neural overproduction and pruning⁴ and students need a different learning environment to thrive. For this reason, Montessori students complete their elementary experience in sixth grade and transition to an adolescent community for seventh grade.

Students remain in the same community for three years, as the youngest, then middle, and finally as the oldest students in the class. Each year in a Montessori class plays a different role in the student's academic and social experience. Academically, the student experiences a year of introduction, a year of practice, and a year of synthesis. In a class with a two-year cycle, students don't have the opportunity to experience the powerful intellectual synthesis and crystallization of the third year. Socially, all students (regardless of the birth order in their families) have the valuable experience of moving from the role of follower to that of leader during their time in the classroom. In the first year, they learn the routines from those who are older; in the middle year, they participate with solid confidence; and in their last year, they are able to provide leadership to younger students. In a two-year class, the middle-year experience is missing, as students have to jump from learning the routines of the community to leading before most of them are ready to do so.

The full strength of the Montessori program is realized when the students experience all of these roles through the full three-year cycle. To stop early is to lose much of the power of the program that is otherwise so readily available and accessible to the students.

Benefits of Three-Year Mixed Age Groups

1. **Self-Paced Learning:** Because they have three years to reach set goals in every subject, students master the curriculum at their own (often nonlinear) pace. Using self-determined rather than imposed deadlines supports student interest in continuing work with the learning materials beyond the minimum requirements.⁵
2. **Aspirational Learning:** Younger students observe and learn from the work that older students are doing. As the older students introduce advanced ideas, concepts, and conversations into the classroom, the challenge of the classroom increases and younger students benefit. Interrupting the three-year cycle prematurely weakens the academic experience of students in the first two years of the cycle.
3. **Synthesis and Crystallization:** Older students help teach those who are younger, naturally requiring them to reflect and synthesize their learning and reinforcing their own skills.⁶
4. **Stable Classroom Communities:** The establishment of a strong culture of learning happens quickly and naturally when only a third of the class is new each year.⁷
5. **Social-Emotional Development:** Three-year mixed age groups increase generosity and helpfulness. They also reduce competition, aggression, and social isolation, as students are able to ask for and offer help to those outside of their immediate peer group. In academic studies, mixed-age groups are consistently found to improve children's social behavior.⁸ Students develop the emotional literacy needed to work with people of different ages, mirroring the adult workplace and society in general.

Trends in the field

It is common for public Montessori schools to maintain the Montessori three-year age span in the upper elementary classroom (grades 4 – 6) even when it does not match the configuration of other district or area schools. LaDené Conroy, Montessori Curriculum Specialist for the Charleston County School District in South Carolina, calls inclusion of sixth grade in the Montessori upper elementary “a non-negotiable.” She emphasizes that high parent satisfaction with the Montessori programs makes parents glad to keep their children in the elementary for sixth grade, so that over 90% of the district's Montessori fifth graders stay in their Montessori programs for sixth grade.⁹

Notes

¹ Montessori, M. (2008). *The child, society and the world: unpublished speeches and writings*. Amsterdam, Netherlands: Montessori-Pierson Publishing Company.

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- ² Bedard, K., & Do, C. (2005). Are middle schools more effective? The impact of school structure on student outcomes. *Journal of Human Resources*, 40(3), 660-682.
- Cook, P. J., MacCoun, R., Muschkin, C., & Vigdor, J. (2008). The negative impacts of starting middle school in sixth grade. *Journal of Policy Analysis and Management*, 27(1), 104-121.
- Schwartz, A. E., Stiefel, L., Rubenstein, R., & Zabel, J. (2011). The path not taken: how does school organization affect eighth-grade achievement?. *Educational Evaluation and Policy Analysis*, 33(3), 293-317.
- ³ Dove, M. J., Pearson, L. C., & Hooper, H. (2010). Relationship between grade span configuration and academic achievement. *Journal of Advanced Academics*, 21(2), 272-298.
- Clump, J. (2006). What the research says (or doesn't say) about K-8 versus middle school grade configurations: Assessing the benefits of K-8 schools. *Northwest Education*, 11(3), 11-03.
- ⁴ Kuhn, D. (2006). Do cognitive changes accompany developments in the adolescent brain? *Perspectives on Psychological Science*, 1(1), 59-67;
- ⁵ Amabile, T. M., DeJong, W., & Lepper, M.R. (1976). Effects of externally imposed deadlines on subsequent intrinsic motivation. *Journal of Personality and Social Psychology*, 37(2), 221-33.
- Reader, M.J., & Dollinger, S.J. (1982). Deadlines, self-perceptions, and intrinsic motivation. *Personality & Social Psychology Bulletin*, 8(4), 742-47.
- Roberts, M.S., Fulton, M., & Semb, G. (1988). Self-pacing in a personalized psychology course: Letting students set the deadlines. *Teaching of Psychology*, 15(2), 89-92.
- ⁶ Bargh, J. A. & Schul, Y. (1980). On the cognitive benefits of teaching. *Journal of Educational Psychology*, 72(5), 593-604.
- Greer, R.D., & Polirstok, S.R. (1982). Collateral gains and short-term maintenance in reading and on-task responses by inner-city adolescents as a function of their use of social reinforcement while tutoring. *Journal of Applied Behavior Analysis*, 15(1), 123-39.
- Gupta, A. (2008). Constructivism and peer collaboration in elementary mathematics education: The connection to epistemology. *Eurasia Journal of Mathematics, Science, and Technology Education*, 4(4), 381-386. Retrieved from <http://proxy.tamu-commerce.edu:9365/>.
- ⁷ AMS Position Paper. (1994). The importance of multi-age grouping. *Public School Montessorian*, 7(1), 20-21.
- ⁸ Katz, L. G. (1995). The benefits of mixed-age grouping. Retrieved from *ERIC Digest*. <http://eric.ed.gov/?id=ED382411>
- McClellan, D. E., & Kinsey, S. (1997). Children's social behavior in relationship to participation in mixed-age or same-age classrooms.
- Pratt, D. (1986). On the merits of multiage classrooms. *Research in Rural education*, 3(3), 111-115.
- ⁹ L. Conroy, personal communication, September 24, 2015.