

**Modified Calendar and Year-Round Education**  
**Academic Research, Doctoral Dissertations and**  
**Social & Emotional Research**  
**Compiled by Dr. James Pedersen, Spring 2023**

In the past ten years doctoral dissertations about calendar reform have not been as prevalent as other topics. Three recurring themes that have been found are **teacher morale/retention, student achievement, and comparing calendar models.**

**Academic Research & Doctoral Dissertations**

[\*Teacher Perceptions Regarding the Relationship of Modified Year-Round School Calendars with Student Achievement, Student Behavior, and Teacher Efficacy \(2013\)\*](#) In this dissertation, a questionnaire was distributed to 106 teachers from public schools in North Carolina with both traditional and balanced calendar schedules. The author discovered, “a strong positive correlation was found between teacher perceptions of year-round school calendars and improved student achievement. Similarly, the study revealed a significant relationship between teacher perceptions of year-round school calendars and positive student behavior.”

[\*Year-Round Education and Student Learning: A Case Study of Stakeholders' Perceptions \(2018\)\*](#) In this 2018 qualitative study, perceptions of the year-round calendar from teachers and administrators in a Michigan school district were examined. This school district implemented the year-round schedule in 1983. The researcher determined, “that participants have an overall positive perception of student learning within a year-round education calendar.”

[\*Impact of a Four-Day School Week on Teacher Preparation \(2019\)\*](#) This study used interviews with Missouri public school elementary building principals to determine if the four-day school week impacted teacher preparation. The researchers examined how teacher preparation was affected in the four areas of, “time management, curriculum awareness, collaboration, and teacher morale.” According to the conclusions of the study, “teachers were happier, had better attendance, were able to spend more quality family time, and seemed to be a bit more well rested. Students also were observed to be happier in a four-day school week.”

[\*The Impact of Continuous Learning Calendars on Student Learning \(2019\)\*](#) The author of this research looked to understand some of the academic effects of summer learning loss and, “the impact [of] continuous learning calendar schools had on student learning.” Teachers shared that they believed the year-round calendar as, “a positive change that allows students remediation and enrichment during breaks, a more consistent schedule where breaks are given to reduce teacher burnout, and a creative way in which to reach the whole child.” The researcher also concluded that the year-round calendar was a positive intervention that motivated students and teachers.

[\*Teachers' Perspectives on Extended Learning Activities during a Balanced Calendar in a Rural Setting by Charlene Lovette Isom, Liberty University, Lynchburg, VA \(2020\)\*](#) This study was completed in a rural school district in Virginia with a year-round school calendar. The author found that the schedule change produced some positive reactions from the teaching staff that was sampled. One teacher even explained that they “felt that the extended learning activities influenced student achievement in numerous ways. Teachers believed the extended learning activities provided great opportunities for students as an enrichment effort.”

*The Impact of a Year-Round School Calendar on College and Career Readiness as Measured by the SAT Scores of Urban High School Seniors (2020)*

In this study, SAT (Scholastic Aptitude Test) scores were measured for students attending year-round school with those from a traditional calendar. The author chose to focus on how urban students from both of those schedules fared in terms of the College Board results. The results of the study, “revealed the suitability of year-round school calendars in the preparation of students for career and college readiness... this study concludes that the traditional school calendar is likely to prove ineffective insofar as SAT scores and preparation of students for career and college are concerned.”

*A Comparison of the Four-Day School Week to the Five-Day School Week and Reading Achievement of Third, Fourth, and Fifth Graders (2021)*

This research study compared the reading achievement of four-day school calendars with the traditional five-day school calendars. The MAP (Measures of Academic Progress) reading proficiency mean scores compiled from 2017 to 2019 from these students were then compared. The results showed, “no significant differences in reading proficiency mean scores between any of the matched four-day and five-day school districts.” This further suggests that one day less instruction does not seem to lessen or worsen student achievement.

[\*Modernizing the School Calendar to Fit the Needs of the 21st-Century Student \(2021\)\*](#) In this dissertation, the MAP (Measures of Academic Progress) of middle school students for schools with four and five-day school weeks were compared. The study’s findings revealed that the achievement scores from both calendar cohorts were insignificant. Therefore based on these results, four-day school weeks produce similar results to five-day school weeks. In addition, “the perceptions of principals and teachers indicated the four-day school week was an overall benefit to the school climate.”

[\*Academic Impact of Rural Idaho Schools on the Four-Day School Week: A Quantitative Research Study \(2020\)\*](#) The author of this research studied the test scores of students who had four-day school weeks and five-day school weeks in rural Idaho schools. In comparing the scores of both sets of students it was found that there was, “no significant impact on the academic performance, as determined by the previously mentioned standardized metrics.”

[\*How Teachers Feel Missouri School Schedules Affect Teachers' Morale: A Qualitative Descriptive Case Study \(2021\)\*](#) Teachers from Missouri elementary schools volunteered to participate in the study, “to understand how different types of school schedules calendars can affect teacher's morale.” The data included interviews and surveys and was collected from the teachers. The results showed that teachers from the year-round schedules increased employee morale and retention.

[\*Stakeholder Beliefs, satisfaction, and Assessments of school climate after implementation of a Year-round Calendar \(2021\)\*](#) A Tennessee public K-12 school implemented a year-round calendar was studied over a six-year period. The participants were made up of students, parents, and teachers and were surveyed regarding their opinions of school climate over that time. Based on the data collected suggested that “satisfaction levels increased after the implementation of YRS and school climate improved.”

[\*A Comparison of Academic Achievement for the Four-Day and Five-Day School Week in New Mexico \(2022\)\*](#) This study followed the student scores for English and math from two different districts. One of the districts operated on a four-day school week while the others operated on a five-day school schedule. The research was conducted in New Mexico with 89 public schools within the state. The results showed no statistical impact from the two cohorts of students, suggesting that the four days of school were just as effective for students as five days of instruction.

[\*A Qualitative Study Examining the Perceptions of Special Education Team Members Regarding the Impact of the Four-Day School Week on Students Who Receive Special Education Services Data \(2022\)\*](#) This researcher studied four-day and five-day school modes as it impacted the area of Special Education in one Midwestern state. The design included collecting surveys and interviews with special education staff and special education administrators. The results showed that “the four-day school model was also perceived by special education team members as positive in association with student achievement.”

[\*The Impact of Summer Programs on Student Mathematics Achievement: A Meta-Analysis \(2022\)\*](#) The authors produced a meta-analysis of 37 studies of summer math programs in mathematics, ranging in grades from pre-K–12. The focus of this analysis sought to determine if student achievement was found in summer math initiatives. The results showed that “children who participated in summer programs that included mathematics activities experienced significantly better mathematics achievement outcomes compared to their control group counterparts.” This study also revealed that achievement was found in different social-economic settings. Finally, their findings suggest that “summer programs are a promising tool to strengthen children’s mathematical proficiency outside of school time.”

[Young African American Scholars Make Reading Gains at Literacy-Focused, Culturally Relevant Summer Camp that Combats Summer Reading Loss \(2021\)](#) A summer camp designed to assist students with learning loss was studied to determine effectiveness. The students participated in the “Children’s Defense Fund’s Freedom Schools, [which was] a free, six-week, literacy-focused, culturally relevant summer camp [to address] summer reading loss.” The program consisted of over 100 hundred students from grades 3-5 who attended three different summer programs who were given a pre- and post-test. The results showed, “that the literacy-focused summer camp provides students with an academically enriching opportunity that may help prevent summer reading loss, particularly for students in Grades 3–5, who experienced small gains on average in vocabulary, fluency, and comprehension.

***COVID-19 school closures and educational achievement gaps in Canada: Lessons from Ontario summer learning research (2021)*** This study explored the effects of the pandemic on student achievement in cohorts of over 12,000 students from Canadian elementary students. The paper references previous research regarding how extended period out of school can be counter-productive and connects that research to the effects of COVID-19 especially in the areas of literacy and numeracy skills. A meta-analysis was conducted and found, “learning losses of 3.5 and 6.5 months among typically performing and lower-performing students respectively, and achievement gaps that grow up to 1.5 years among same grade peers.” The authors recommended summer learning programs to address these losses and ameliorate learning loss.

*Aurini, J., & Davies, S. (2021). COVID-19 school closures and educational achievement gaps in Canada: Lessons from Ontario summer learning research. Canadian Review of Sociology, 58, 165-185*

***Effects of a Summer Reading Intervention on the Reading Performance of Elementary Grade Students from Low-Income Families (2020)*** This study sought to examine the effects of a summer reading program on third grade students from low-income families who were below reading level. The researchers looked at rising second graders and assigned them into two groups—one with the reading program and the other without. The results showed that the scores on the intervention group were significantly higher than the control group.

*Beach, K.D., & Traga Philippakos, Z.A. (2020). Effects of a Summer Reading Intervention on the Reading Performance of Elementary Grade Students from Low-Income Families. Reading & Writing Quarterly, 37, 169-189.*

[Four-Day School Week Overview \(2020\)](#) In 2020, the National Conference of State Legislatures reported that, “the maximum possible cost savings for districts on a four-day week is 5.43 percent, but average savings range from 0.4 to 2.5 percent.” They further go on to add that although most of these adoptions have been in smaller, rural districts, the positive implications could possibly be brought to larger, urban districts.

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[\*Stakeholder beliefs, satisfaction and assessments of school climate after implementation of a year-round calendar \(2021\)\*](#) A Tennessee public K-12 school that implemented a year-round calendar was studied over a six year period. The participants were made up of students, parents and teachers and were surveyed regarding their opinions of school climate over that time. Based on the data collected suggested that, “satisfaction levels increased after the implementation of YRS and school climate improved.”

[\*How Teachers Feel Missouri School Schedules Affect Teachers Morale: a Qualitative Descriptive Case Study \(2021\)\*](#) Teachers from Missouri elementary schools volunteered to participate in study, “to understand how different types of school schedules calendars can affect teacher’s morale.” The data included interviews and surveys and was collected from the teachers. The results showed that teachers from the year-round schedules increased employee morale and retention. Smith, T. (2021).

## **Social/Emotional Research**

One 2018 study in the Journal of School Health found, [\*“that elementary students gain\[ed\] weight over the summer.”\*](#) A year later, Mary Ann Liebert published an online article examining the impact of Year-Round and Traditional School Schedules on Summer Weight Gain and Fitness Loss. She found that, “shorter summer breaks appear to have a protective effect on summer weight gain when compared with a traditional 12-week break.” She went on to add, “schools might consider a year-round school calendar for its potential to protect against summer weight gain.”

The International Journal of Behavioral Nutrition and Physical Activity also studied “the impact of summer vacation on children’s obesogenic behaviors and body mass index.” The results from their research showed that, “children’s BMI [Body Mass Index] gain accelerates during summer.” Lastly, in 2019, the Sleep Journal studied changes in children’s sleep and physical activity during a 1-week versus a 3-week break from school. The results indicated, “that during breaks children shifted bed and wake times by more than 1 hour on a 1-week and 3-week break. Further, this study showed that the children slept for approximately 20 to 30 minutes more during breaks from school.” <https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-020-01052-0>  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6335866/>

[\*In The Dynamic Effects of a Summer Learning Program on Behavioral Engagement in School \(2020\)\*](#), the Center for Policy Analysis published a study on how a summer social emotional curriculum benefits students during the regular school year. This program was implemented with, “low-income middle school students and features unusual academic breadth and a social emotional curriculum with year-to-year scaffolding.” Their results showed that their intervention, “led to substantial reductions in unexcused absences, chronic absenteeism and suspensions and a modest gain in ELA test scores.”

[\*The effect of school summer holidays on inequalities in children and young people’s mental health and cognitive ability in the UK using data from the millennium cohort study\*](#) In The Effect of School Summer Holidays on Inequalities in Children and Young People’s Mental Health and Cognitive Ability in the UK Using Data From the Millennium Cohort Study (2022) the Bio Med Central from the United Kingdom published a study investigating, “inequality changes in children’s mental health and cognitive ability across the summer holidays.” Using linear and logistic regression analysis, the researchers interviewed students before and after the summer holiday. The research, “found inequalities in mental health and cognitive ability according to maternal education, and some evidence of worsening mental health and mental health inequalities across school summer holidays.”

## **Washington State Balanced Calendar Case Studies**

Overview: Five Washington State School Districts currently operating on a modified school year calendar provided feedback about their experience. *They were asked:*

1. What model calendar are you operating on and How long is your calendar adopted for?
2. Why did you want to initially explore a balanced/modified calendar model?
3. What were some of the obstacles?
4. What were your solutions?
5. Lessons learned (advice you would provide to a district interested in exploring a modified/balanced calendar model).

**Thank you to: Winlock, Union Gap, Toppenish, Mount Adams, Highland.** [Link to Case Studies](#)