Home > J ournal > Social Sciences \& Humanities > PSYCH
Indexing View Papers Aims \& Scope Editorial Board Guideline Article Processing Charges

PSYCH> Vol. 2 No.8, November 2011

## OPEN $\odot$ ACCESS

## School Size as a Factor in the Academic Achievement of Elementary School Students

PDF (Size: 89KB) PP. 859-868 DOI: 10.4236/psych.2011.28131

## Author(s)

Kerry Reimer Jones, Anthony Nnajiofor Ezeife

## ABSTRACT

This study empirically assessed the relationship between school size and academic achievement of elementary school students in Ontario, Canada. Utilizing data from the Ontario provincial standardized test, the Educational Quality and Accountability Office (EQAO), the results of 541 schools from ten school boards, were studied. A One-way Analysis of Variance (ANOVA) indicated that overall, there was no statistically significant correlation between school size and student achievement. However, there were significant correlations with respect to levels of performance in both Grades three and six in some curricular areas. Also, further analysis at each independent achievement level revealed that the mean percentage of students achieving at stipulated provincial standards in Grade three writing and in Grade six reading, writing and mathematics were highest in large sized schools (schools with more than 420 students). Results further indicated that the mean percentage of students performing above provincial standards in Grade six reading and writing was also highest in large schools. Students in medium sized schools (between 246 and 420 students) also had the highest mean percentage of students performing above provincial standards in Grade three writing and in Grade six mathematics. The limitations and implications of the results are discussed, and relevant suggestions made.

## KEYWORDS

School, Size, Achievement, Elementary, Students

## Cite this paper

Jones, K. \& Ezeife, A. (2011). School Size as a Factor in the Academic Achievement of Elementary School Students. Psychology, 2, 859-868. doi: 10.4236/psych.2011.28131.

## References

[1] Abbott, M. L., Joireman J., \& Stroh H. R. (2002). The influence of district size, school size and socioeconomic status on student achievement in Washington: A replication study using hierarchical linear modelling. Unpublished Technical Report \#3. Washington: Washington School Research Center. Retrieved October 12, 2005 from:
[2] Alspaugh, J., \& Gao, R. (2003). School size as a factor in elementary school achievement. (ERIC Document Reproduction Service No. ED 475 062).
[3] Barker, R.G., \& Gump, P. V. (1964). Big school, small school: High school size and student behavior. Stanford, CA: Stanford University Press.
[4] Bickel, R., Howley, C., Williams, T., \& Glascock, C. (2001). High school size, achievement equity, and cost: Robust interaction effects and tentative results. Education Policy Analysis Archives, 9. Retrieved October 29, 2005 from http://epaa.asu.edu/epaa/v9n40.html.
[5] Borland, M. V., \& Howsen, R. M. (2003). An examination of the effect of elementary school size on student academic achievement. International Review of Education, 5, 463-474.
[6] Burrup, P. E., Brimley, V., \& Garfield, R. R. (1988). Financing education in a climate of change (4th ed.). Boston: Allyn and Bacon.

## - Open Special Issues

- Published Special Issues
- Special Issues Guideline

| PSYCH Subscription |
| :--- |
| Most popular papers in PSYCH |
| About PSYCH News |
| Frequently Asked Questions |

```
Recommend to Peers
```


## Recommend to Library

## Contact Us

| Downloads: | 272,013 |
| :--- | :--- |
| Visits: | 600,356 |

## Sponsors, Associates, al Links >>

[7] Caldas, S.J. (1993). Reexamination of input and process factor effects on public school achievement. Journal of Educational Research, 86, 206-214.
[8] Conant, J. (1959). The American high school today: A first report to citizens. New York: McGrawHill.
[9] Cubberley, E. (1922). Rural life and education: A study of the rural-school problem as a phase of the rural life problem. NY: Houghton- Mifflin.
[10] Eberts, R. W., Kehoe, E., \& Stone, J. A. (1982, June). The Effect of School Size on Student Outcomes. Final Report. Eugene, OR: Center for Educational Policy and Management, University of Oregon, (ED 245 382).
[11] Edington, E. D., \& Gardener, C. E. (1984). The relationship of school size to scores in the affective domain from the Montana testing service examination. Education, 105. 40-45.
[12] Education Quality and Accountability Office. (2003a). Administration guide. Toronto, Ontario: Queen' s Printer for Ontario.
[13] Education Quality and Accountability Office. (2003b). Teacher's daily plans. Toronto, Ontario: Queen' s Printer for Ontario.
[14] Education Quality and Accountability Office. (2005). About EQAO. Retrieved November 7, 2005 from www.eqao.com
[15] Fowler, W. J., Jr. (1995). School size and student outcomes. Advances in Educational Productivity, 5. 3-26.
[16] Fowler, W., \& Walberg, H. (1991). School size, characteristics, and outcomes. Educational Evaluation and Policy Analysis, 13, 189-202.
[17] Franklin, B. J., \& Crone, L. J. (1992, November). School accountability: Predictors and indicators of Louisiana school effectiveness. Paper presented at the annual meeting of the mid South Educational association, Knoxville, TN. (ERIC Document Reproduction Service No. ED 354 261)
[18] Friedkin, N., \& Necochea, J. (1988). School system size and performance: A contingency perspective. Educational Evaluation and Policy Analysis, 10, 237-249.
[19] Goodlad, J. (1984). A place called school. New York: McGraw-Hill.
[20] Greenwald, R., Hedges, L. V., \& Laine, R. D. (1996). The effect of school resources on student achievement. Review of Educational Research, 66, 361-396.
[21] Guthrie, J. W. \& Reed, R. J. (1986). Educational administration and policy: Effective leadership for American education. Englewood Cliffs, NJ : Prentice-Hall.
[22] Haller, E. J., \& Monk, D. H. (1988). New reforms, old reforms and the consolidation of small rural schools. Educational Administration Quarterly, 34, 28-57.
[23] Haller, E. J.; Monk, D. H.; \& Tien, L. T. (1993). Small schools and higher-order thinking skills. Journal of Research in Rural Education, 9, 66-73.
[24] Howley, B. (1989). Synthesis of the effects of school and district size: What research says about achievement in small schools and school districts. Journal of Rural and Small Schools, 4, 2-12.
[25] Howley, C. (1995). The Matthew principle: A West Virginia replication? Education Policy Analysis Archives, 3. Retrieved February 13, 2002, from http://seamonkey.ed.asu.edu/epaa/v3n18.html.
[26] Howley, C. (1996). Compounding disadvantage: The effects of school and district size on student achievement in West Virginia. Journal of Research in Rural Education, 12, 25-32.
[27] Howley, C., Strange, M., \& Bickel, R. (2000). When it comes to schooling...small works: School size, poverty and student achievement. (ERIC Document Reproduction Service No. ED 447 973).
[28] Huang, G., \& Howley, C. (1993). Mitigating disadvantage: Effects of small scale schooling on student achievement in Alaska. Journal of Research in Rural Education, 9, 137-149.
[29] Hylden, J. (2005). What' s so big about small schools? The case for small schools: Nationwide and in North Dakota. Program on Educational Policy and Governance.
[30] Lee, V., \& Loeb, S. (2000). School size in Chicago elementary schools: Effects on teachers' attitudes and students' achievement. American Educational Research Journal, 37, 5-31.
[31] Lee, V. E., \& Smith, J. B. (1997). High school size: which works best and for whom? Educational Evaluation and Policy Analysis 19, 205-227.
[32] Lytton, H. \& Pyryt, M.C. (1998). Predictors of achievement in basic skills: A Canadian effective schools study. Canadian Journal of Education, 23, 281-301.
[33] Ma, X., \& Klinger, D. A. (2000). Hierarchical linear modeling of student and school effects on academic achievement. Canadian Journal of Education, 25, 41-55.
[34] McGuffey, C., \& Brown, L. (1979). The relationship of school size and school plant utilization to cost variations to maintenance and operation. American Educational Research Journal, 15, 373-378.
[35] McGuire, K. (1989). School size: The continuing controversy. Education and Urban Society, 21, 164174.
[36] Meier, D. (1995). Small schools, big results. The American School Board Journal, 182, 37-40.
[37] Meier, D. (1996). The big benefits of smallness. Educational Leadership, 54, 12-15.
[38] Miller, J. W., Ellsworth, R.; \& Howell, J. (1986). Public elementary schools which deviate from the traditional SES-achievement relationship. Educational Research Quarterly 10, 31-50.
[39] Monk, D. H. (1987). Secondary school enrollment and curricular comprehensiveness. Economics of Education Review, 6, 137-150.
[40] Mulrine, A. (2002). Smaller and better. U.S. News World Report, 20, 38-44.
[41] Okpala, C. O. (2000). A clear link between school and teacher characteristics, student demographics and student achievement. Education, 3, 487-500.
[42] Ontario Ministry of Education. (2006). Quick Facts, 2002/03. Retrieved on February 24, 2006 from www.edu.gov.on.ca
[43] People For Education. (2006). Between a rock and a hard place. Retrieved on March 6, 2006 from www.peopleforeducation.org
[44] Ready, D. D. (2004). Educational equity and school structure: School size, overcrowding and schools within schools. Teachers College Record, 10, 1989-1998.
[45] Roeder, P.W. (2002). Resisting the urge to merge: Does school size matter? (ERIC Document Reproduction Service No. ED 464 793)
[46] Sergiovanni, T. (1995, November). Small schools, great expectations. Educational Leadership, 53, 48-

