

The Hard Work Hypothesis: Is Doing Your Homework Enough to Overcome the Effects of Poverty?

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It is well-established that the effects of poverty are devastating for children in school. More generally, scholars have documented that low "socio-economic status" (SES), whether measured by family income, parent education, or parent occupation, is usually the most powerful predictor of achievement and test score performance, sometimes swamping all other factors (White, 1982). This advantage translates to life success; children of the wealthy are far more likely to become wealthy, become professionals, and attain positions of power than children of the poor. (Simonton, 1994). Simonton, in fact, concludes that "the log cabin myth is just that, pure myth" (p. 157).

There have been some recent challenges to this generalization, however, claims that some children, especially Asian immigrant children and the children of Asian immigrants, do very well even though they come from high-poverty backgrounds. Two such cases are the "Boat People" of Vietnam, who arrived in the US in 1978, and the Hmong.

The Boat People and the Hard Work Hypothesis

The Boat People, according to Caplan, Choy and Whitmore (1992) came only with "the clothes on their backs." Nevertheless, their children did well in American schools. Caplan et. al., (1989, 1992) examined a subset of these children (n = 355) in grades K through 12 and reported that their overall grade point average was 3.02, nearly exactly a B, and they did especially well in math: A group of high school students from their sample (n = 97) scored at the 72nd percentile on the math CAT.

How did they do it? Hard work and family values, according to Caplan et. al., with lots of homework (a specific time set aside for homework every evening, with older children helping the younger ones. Caplan et. al. document this: Those in high school averaged three hours and ten minutes homework per evening, those in junior high two and a half hours. The US average for junior high and high school is 1.5 hours.

The Hmong and the Hard Work Hypothesis

The Hmong, immigrants from Laos, also appear to support the Hard Work hypothesis, the hypothesis that hard work (homework) can overcome the disadvantages associated with poverty. As a group, the Hmong are among the poorest of immigrant groups and are among the least educated. For the 14,000 Hmong in California in 1990, median household income was \$16,000 per year, compared to the then national average of \$36,000 (University of Wisconsin, 2000). Only 3% of the Hmong in California had graduated college (University of Wisconsin, 2000); compare this to the finding that 42% of the Chinese/other Asian group studied by Portes and Rumbaut (2001) had graduated college.

Yet the Hmong do well in school, and it is undeniable that they are very hard workers. Table 1, from Portes and Rumbaut, reveals, in fact, that the Hmong are the champion homework students of their entire sample, with nearly half reporting two or more hours of homework per day.

Table 1: Background and Homework

	school engagement	homework
Mexico	52%	14%
Nicaragua	57%	21%
Vietnam	59%	45%
Hmong	62%	48%
Chinese/other	61%	38%

All data from Portes and Rumbaut, tables 4,1, 8.4

School engagement: percent who feel grades are very important

Homework: percent who report doing two or more hours per day of homework

Their homework time appears to pay off in terms of better grades: Rumbaut (1997) reported that from the sample of children of immigrants in US high schools studied by Portes and Rumbaut (2001), more time spent in homework resulted in better grades (table 2).

Table 2: Homework and GPA

Hours	GPA: 1992	GPA: 1996
less than 1	2.3	2.3

1 hr to 2 hrs	2.6	2.6
2 to 3 hrs	2.9	2.8
4 or more	3	3.1

From: Rumbaut (1997)

More Evidence for the Hard Work Hypothesis: Background Counts When SES is Controlled

Table 3 presents a multiple regression analysis from Portes and Rumbaut (2001), examining predictors of grades and standardized test results for children of immigrants in high school.

Multiple regression is a very useful statistical tool that allows us to examine the impact of different predictors, holding the others constant. For example, table 3 tells us that high school students who have higher socio-economic status (SES) score higher on a test of reading. The "regression coefficient" for SES is 6.88. SES was measured on a five-point scale (-2 to +2); for each point higher in SES, students scored 6.88 higher on the reading test. Thus, students from the highest SES group scored about 34 points higher in reading than students from the lowest group.. The regression coefficient represents the impact of SES without influence of other factors, that is, when interpreting the impact of SES, we can pretend students were identical in all other ways.

In table 3, SES is a strong predictor of all three measures, reading, math and grades. Note, however, even after controlling for SES, as well as for other predictors, such as the SES of one's friends, background is still a significant predictor. Being Mexican, for example, predicts lower test scores (15 percentiles lower in reading) as well as a quarter of a grade lower grade point average. Being Chinese/Korean predicts 3/4 of a grade higher GPA, 13 percentiles higher in reading, and a spectacular 23 percentiles higher in math.

Table 3: Multiple Regression: from Portes and Rumbaut (2001).

Predictor	READING	MATH	GRADES
Age (range 12-18)	-3.24***	-4.10***	-.10***
Sex (1 = female)	2.63*	1.62*	.33***
Region (1 = CA, 0 = FL)	3.85*	-8.46**	0.27

Parental SES (range -2 to +2)	6.88**	5.8***	.18***
Intact Family (1 = both parents)	0.9	3.45**	.18***
US Born	6.06***	0.56	-.16***
Long Term Resident*	6.23***	0.02	-.12*
Fluent Bilingual (1 = fluent bi.)	2.3*	1.93*	.06*
Limited Bilingual	-12.14***	-7.14***	
Parent-Child conflict (1-4)	-2.15**	-3.12***	-.16***
Second-generation friends (1-3)	1.88*	3.84*	-.06**
Inner City (1 = inner city, 2 = not inner city)	-2.07*	-6.21**	0
Average Student SES (free/reduced lunch)	.2***	.10**	-0.06
Chinese/Korean	12.97**	23.22***	.76***
Columbian	0.07	-0.45	-0.05
Cuban, private school	7.14*	5.6	.25**
Cuban, public school	-1.64	-3.48*	-.14*
Filipino	-1.69	3.39	.17*
Haitian	-8.29**	-7.18*	0
Laotian/Cambodian	-12.41**	2.1	.47***
Mexican	-14.7***	-11.52***	-.25**
Nicaraguan	-3.71	-2.62	-0.1
Vietnamese	-3.21	15.79***	.50***
West Indian	1.07	-4.94	-0.01
r ²	0.29	0.25	0.24

* = moderate effect, ** = strong effect, *** = very strong effect

Length of residence in US: 1 = less than 5 years; 2 = 5-9, 3 = 10 or more, 4 = native born.

Range of grades = 0 to 5, mean = 2.52

A look back at table 2 gives a plausible explanation: Chinese/other Asian background students do a lot more homework than Mexican background students, and are more engaged in school. This seems to say that homework counts, that social class is not everything, and suggests that homework can at least make up for some of the disadvantages poor children have.

The Counterevidence: Another look at the Boat People. How well did they really do?

A closer look at research on the Boat People reveals that they did well, but were not spectacular. As noted above, their overall GPA was 3.02, but much of this was due to high performance in math: Without math, their average drops to 2.64 (Caplan et. al., 1989, p. 67).

For the 96 high school students studied, CAT math scores were very high, but their CAT scores for language and reading were a more ordinary 46th percentile. This is very good for students who have only been in the US for three and a half years, but not spectacular. (It should be noted that Caplan et. al. reported the results for CAT reading and language tests combined. They are separate tests, and the reading test is considered more demanding and a better test of academic language.)

No comparison group was included; there was no comparison with students of similar SES, with similar length of residence, from the same or other countries. In addition, we have no idea how much education the children had before arriving in the US, and what the quality of their education was. Quality of education in the first language is a strong predictor of success (Krashen, 1996).

The Boat People: Were they really low SES?

Caplan and colleagues provide somewhat conflicting information. It is very clear that the Boat People suffered from considerable poverty when they arrived in the US, but it is not clear what SES they had in Vietnam. In one place, we are told that "the vast majority of the parents ... came from low SES backgrounds, the poorer and less educated segments of their society (Caplan, Whitmore and Choy, 1989, p. 212), but elsewhere we are told that they "... are much more urban, more highly educated, and skilled in jobs more related to urban environments than the majority in the society they left behind" (p. 27). Walker-Moffet (1995) in fact, concludes that the Boat People study "really tells us is that students from well-educated backgrounds succeed academically regardless of their status as refugees" (p. 12).

There is some concrete data: Whitmore, Trautman and Caplan (1989) inform us that 26% of the parents in their sample had completed high school. This is considerably higher than the 9% reported for the Hmong living in California in 1990 (University of Wisconsin, 2000) but considerably less than the US average of 78% for 1990

(Digest of Educational Statistics, 1966, table 8).

Caplan et al, 1992, however, tell us that about half of the parents read to their children, either in Vietnamese or English, suggestive of at least moderate levels of literacy. Caplan et. al. (1989) mention that a multiple regression analysis was done, and it showed no impact of previous parental SES on school performance of the children, but no details are provided.

A closer look at the Boat People, thus, shows that their school performance, while respectable, was not miraculous. A closer look at their backgrounds reveals the possibility that they did not belong to the lowest SES group, and that at least some of the parents were literate and educated. This case does not provide strong support for the Hard Work hypothesis. It is, at best, a suggestive case that lacks a great deal of crucial data.

The Hmong: Grades yes, tests no.

In contrast to the Boat People, the Hmong clearly are low SES with respect to both income and parental education. Recall that the hard-working Hmong children, according to table 2, exceed all groups in the amount of homework done and are among the high-poverty groups. Does all the hard work pay off?

Another examination of table 3 reveals that being a member of the group Laotian/Cambodian does indeed predict a higher GPA and the effect is substantial: Laotian/Cambodian-origin students, after controlling for SES and other factors, earn a half-grade higher GPA. Being Laotian/Cambodian, however, does not increase scores on the standardized test of math, and results in 12 percentiles less on reading. Their success, in other words, is limited to good grades. Walker-Moffett (1995) interprets this result as showing that the Hmong try very hard, and please the teacher, but do not accomplish as much as their high grades indicate.

Additional evidence for this interpretation comes from Lee (1995), in her ethnographic study of Asian-American high school students:

"At Academic High I found that Asian American students were rewarded for being quiet, polite, and respectful. On several occasions I learned from teachers that they had given passing grades to Asian American students who had not earned them. In each case, the student who was passed was described as a quiet and polite student ... similarly, in her study on Hmong students, Goldstein (1985) [unpublished dissertation] found that Hmong students were promoted to the next grade based on their behavior rather than on their academic performance" (pp. 62-63).

I interpret this result as showing that for less privileged children, hard work will take you only so far: It may result in higher grades, but the effect may be limited to higher grades. The effects of poverty and having less-educated parents is very strong. As discussed below there is a lot that can be done for these children, but simply telling them to try hard in school and get good grades is not the complete solution.

Discussion

My conclusions are consistent with other results showing the powerful effect of low SES. Krashen (2002) concluded that despite claims made by Ed Trust, a re-analysis of their data for California showed that high poverty schools that were also high performing, as defined by performance on standardized tests, were nearly non-existent.

My conclusions are also consistent with research showing that high performance on standardized tests of reading is consistently associated with access to print (Krashen, 1993, McQuillan, 1998), and that children of poverty have far less access to print (Neuman and Celano, 2000). This relationship holds because access to print results in more recreational reading, and more recreational reading results in more literacy development (Krashen, 1993). Massive amounts of traditional homework cannot build literacy nearly as effectively as hours of pleasure reading. The obvious part of the cure for children of poverty is more access to print, via better school and public libraries.

Higher SES is also associated with better education in the country of origin. For students who arrived in the US during school age, children of poverty rarely have had quality education in the primary language, a factor that has a strong effect on performance on school in the US. In fact, some middle class immigrant children not only have a strong background when they arrive, but are also provided with tutoring (Krashen, 1996). Bilingual programs are designed to provide this background rapidly for those with limited English proficiency.

This analysis also forces us to reconsider the effects of homework. More time devoted to homework appears to be related to better grades but not necessarily to higher performance on standardized tests. This should not be interpreted as saying that homework is useless; obviously, the value of homework depends on the assignment and degree of engagement. In the case of reading, for example, the research cited above on the impact of pleasure reading suggests that outside of

school activities that engage the student in interesting texts and that encourage additional free voluntary reading will be highly effective. This is only possible, however, if reading material is easily available. But homework that focuses on skill-building will have limited value.

It would also be of interest to determine which aspects of SES are crucial: The case of the Boat People suggests that parental education is more relevant than current income. Better educated parents, it is predicted, will be more likely to read to their children, provide access to reading materials, and be better prepared to help with homework. If this help is done in the first language, it is a form of de facto bilingual education. And of course we should be looking at more than standardized test results to measure true academic success.

References

Caplan, N., Whitemore, J. & Choy, M. (1989). The boat people and achievement in America. Ann Arbor: University of Michigan Press.

Caplan, N., Choy, M., & Whitmore, J. (1992) Indochinese refugee families and academic achievement. *Scientific American* 266(2), 36-42.

Krashen, S. (1993). The power of reading. Englewood, CO: Libraries Unlimited.

Krashen, S. (1996). Under attack: The case against bilingual education. San Francisco: Alta Book Company.

Krashen, S. (2002). Don't trust Ed Trust. *Substance* 27 (6): 3.

Lee, S. 1996. Unraveling the "model minority" stereotype: Listening to Asian American youth. New York: Teachers College Press.

McQuillan, J. (1998). The literacy crisis: False claims and real solutions. Portsmouth, NH: Heinemann Publishing Company.

Neuman, S. & Celano, D. (2001). Access to print in low-income and middle-income communities. *Reading Research Quarterly* 36(1), 8-26.

Portes, A. & Rumbaut, R. (2001). Legacies: The story of the immigrant second

generation. Los Angeles: University of California Press.

Rumbaut, R. (1997). Passages to adulthood: The adaption of children of immigrants in Southern California. Report to the Russell Sage Foundation.

Simonon, D.K. (1994). Greatness: Who makes history and why. New York: The Guilford Press.

United States Government (1996). Digest of educational statistics.
<http://nces.ed.gov/pubs/d96/D96T008.html>

Walker-Moffat, W. (1995). The other side of the Asian-American success story. San Francisco: Jossey-Bass.

University of Wisconsin, (2000). Hmong Population Research Project.
<http://www.uwec.edu/econ/HomongResearch/Heducation.htm>

White, K. (1982). The relation between socioeconomic status and academic achievement. Psychological Bulletin, 91: 461-481.

Whitmore, J., Trautmann, M., & Caplan, N. (1989). The socio-economic basis for the economic and educational success of Southeast Asian refugees (1978-1982 arrivals). In D. Haines (Ed.) Refugees as immigrants. (pp. 121-138) Totowa, NJ: Rowman and Littlefield.