



Social Mobility and Transferable Skills in public Conventional and Montessori schools



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Background/Literature Review

The humanistic hope is that we all can live satisfactory lives (American Humanist Association 2017).

While the quality of life is determined by socioeconomic background as well as our gender, race, and ethnicity (American Psychological Association 2012), recent work exploring the status of the American middle class (Chatty 2014, PewResearch Center 2016) reminds us that education plays an important role in shaping our lives. Good education not only provides students with formal knowledge but also offers opportunities to develop and practice transferable skills necessary to navigate life. Those with formal knowledge and skills are more likely to graduate from high school and those who graduate are more likely to experience upward social mobility and enjoy their personal and professional life (Putnam 2015).

SOCIAL MOBILITY is the change in social position or status of a person or groups. Upward social mobility reflects economic equality and supports democracy (Mishel, Bivens, Gould, Shierholz 2012). While upward social mobility is desirable, social shifts observed during the last four decades continue to show growing economic, political and social inequality (Mishel et al. 2012, PewResearch Center 2016).

CONVENTIONAL EDUCATIONAL MODEL is embedded in the factory model that emphasizes authority and discipline (Lillard 2005). The American conventional model is also shaped by federal initiatives such as "No Child Left Behind" (2002) and "Race to the Top" (2009) that require students to do well on standardized tests so their schools can receive funds (Celestin 2011).

NON-CONVENTIONAL EDUCATIONAL MODEL follows curricula that might focus on specific themes like science and technology or specific philosophies such as Waldorf or Montessori (Edwards 2002).

MONTESSORI EDUCATIONAL MODEL approaches students from a holistic perspective and appreciates the stages of child development (Lillard, 2005; Lillard 2012; Martin 2004). Students work in mixed aged groups in 3 hour uninterrupted blocks and use specific educational materials (Lillard 2005; Lillard 2012).

TRANSFERABLE SKILLS are skills that we learn in one situation and use in another. They are sometimes called lifelong learning skills, executive function skills, or job skills (Pellegrino & Hilton 2012; Ballantine and Hammack 2012).

Research Question

Do alternative educational approaches such as the Montessori program provide greater opportunities for practicing transferable skills?

References

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Methods

DESIGN

Triangulation research design involving collecting qualitative and quantitative data through non-participant observations and surveys.

QUALITATIVE

30 min observations/ 5 days

CODES: listening to teacher or students, following directions, resisting an urge to answer unless permitted, working with other students, seeking help, solving problems, putting materials back.

QUANTITATIVE

15 question surveys

(multiple choice and Likert scale questions)

Teachers and Parents

VARIABLES

Types of Elementary Schools	Public Conventional School (PCS) Public (magnet) Montessori School (PMS)
Transferable Skills	Following multi step directions, self control, focusing attention, team work, problem solving (Center on the Developing Child at Harvard University 2011)

DEMOGRAPHICS

Type of School	PCS	PMS
No of sts/class	25	21
Free/Reduced Lunch	46%	42%
ISAT	65%	65%
Race/Ethnicity	White: 56.6% African American: 27.8% Hispanic: 3.9% Asian: 1.9% Mixed Race: 8.7%	White: 61.4% African American: 24.1% Hispanic: 0.8% Asian: 1.6% Mixed Race: 10.9%

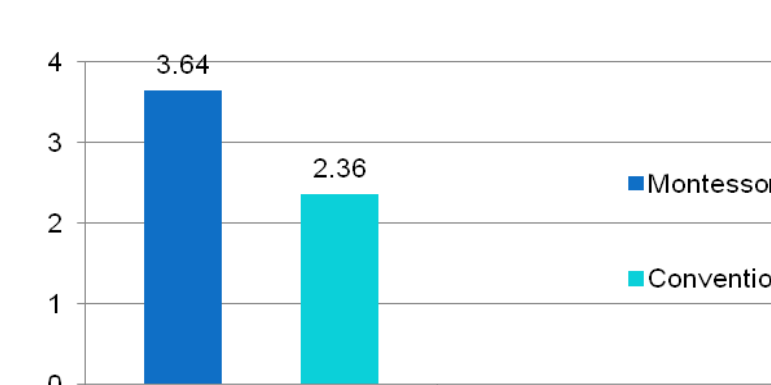
Results

QUANTITATIVE DATA INDEPENDENT SAMPLE T-TEST

Teacher Surveys

Significant difference between the mean scores of transferable skills of students attending the public Montessori school and public Conventional school ($t(26)=4.040, p<.05$). The mean of the students attending public Montessori school was significantly higher ($M=3.64, Sd=.633$) than the mean of the students attending the Public Conventional School ($M=2.36, Sd=1.008$).

Mean Scores



Parent Survey

No significant difference was found ($t(26) = 1.935, p>.05$). The mean of the students attending public Montessori school ($M=3.33, Sd=.611$) was not significantly higher than the mean of the students attending the public Conventional school ($M=2.93, Sd=.475$).

References

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Results

QUALITATIVE DATA

Students in both schools exhibited focused attention and self control, engaged in team work and problem solving as well as followed multi step directions. However, the intensity of these skills differ by the schools. Furthermore, observations revealed that the ability to practice these five transferable skills was greatly shaped by teachers, employed techniques as well as physical (and symbolic) spaces created within the classroom.

Conclusions

According to teacher assessments and based on the statistical analysis comparing the two groups (public Conventional school and public Montessori schools) students at the public Montessori school had a greater level of transferable skills when compared to students attending the public Conventional school. However, according to parent assessments, when at home, there were no significant differences in the level of transferable skills among students attending either school.

Students attending both schools exhibited focused attention and teamwork when they engaged in group activities or when they worked in specific spaces within the classroom such as "the carpet" or "the library" in the PCS and "the circle" in the case of the PMS.

In contrast to students attending the PCS, students at the PMS engaged in 3 hour blocks of uninterrupted work that ultimately provided them with greater opportunities to practice focused attention.

Teachers at these two schools also employed different methods of attracting student's attention. The teacher at the PMS more often used topics of student interest while the teacher at the PCS relied heavier on directions and instructions. Exploring students topics of interest was also a more successful method of securing their focused attention.

While self-control, on many occasions, in both schools was prompted by adults, it was clear that teachers at these two schools used different techniques. Students at the PCS were given specific instructions and directions while students at the PMS were asked to make responsible choices. Placing responsibility on students to make good choices rather than requiring them to follow directions, appeared to have a long lasting effect.

Reflexivity

VALIDITY AND LIMITATIONS

A case study doesn't really allow for generalization. Experiences of students in other schools might vary from the experiences of the students who participated in this study. While a qualitative case study is a good design to describe the phenomena, it is a limited design in predicting future trends.

Research objectivity might be questioned since the study was conducted by one person. Some might claim that the findings of such studies are potentially influenced by researcher bias and ultimately confirm or reinforce researcher perceptions and beliefs.

SUGGESTIONS FOR FUTURE RESEARCH

Conduct the same study in other schools. Revisit with the schools in later years to repeat the study.

IMPLICATIONS

Recognize the importance of teachers and physical spaces in creating school experiences that foster student transferable skills.