Social Structures in Formal Education for the At-risk Preschooler

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Abstract

Having a supporting social structure in early childhood is an important criteria for success in a formal educational setting. This qualitative case study explores a preschool program for at-risk children in a small midwestern city in North America. It is an investigation into the people and relationships that exists in the child's formal and informal learning environments. Findings show that there is a direct relationship with the quality of social support a child receives and the learning outcomes. Being socially disadvantaged can lead to a pedagogical disadvantage; this is discussed in light of its implications for educational reform.

Education has gone from being a privilege to a universally recognized human right.Thus, there is a need for equitable access to education especially for young children. The goal of early childhood education are to enhance cognitive skills, school readiness and social-emotional development (Currie, 2001). The ages of entrance into formal learning environments differ per culture and geographical setting. In North America, the age of entrance into such environments begins with the pre-k class or 'preschoolers' as they are commonly called; this is known as the 3 to 5 year old age group. This age group are mostly transitioning from primary care being provided by the parent/guardian or in a daycare setting to a somewhat structured learning environment. The years spent in preschool prepares them for entry into the kindergarten setting.

Though it is ascertained that formal education is beneficial, there is still an issue of inequitable access to such education. Additionally, where such access becomes available, the learner requires a plethora of resources to thrive within the formal learning environment. Those resources need to exist both within and outside the classroom walls. The resources include basic life necessities; food, shelter and clothing. Beyond that, being of good health (or at least having access to good healthcare), security of life and property are also of top priorities.

At-risk individuals are those who by virtue of contingent situational circumstances are devoid of access to the aforementioned resources that are otherwise commonplace in a civilized society. Children can be categorized as at-risk for a variety of reasons, namely (but not exhaustively); having a physical and/or learning disability, homelessness, poverty, diagnosed emotional or behavioral disorder, unstable family background rife with abuse, incarceration or delinquency and ethnic/language barriers.

Vygotsky, the famed social development theorist in his early work identified more broadly a categorization of the modern day 'at-risk' term. Considering the time period in which his theory was formed is apt as it mimics the current situational scope studied in this paper. According to Daniels (2009), "Vygtosky was charged with developing a state system for the education of 'pedagogically neglected' children in post-revoutionary Russia. This group included the homeless, of which there were a very large number, and those with certain categories of special need." (p. 24). He made a distinction between what he considered primary and secondary disability. The former refers to a biological impairment and the latter is due to social disadvantages. The latter is of interest in this study. Though the term social disadvantage is susceptible to a myriad of meanings and can encompass many of the at-risk factors highlighted above including an ineffective social structure. The social structure refers to the people, relationships and interactions that make up a child's learning environment. Hence, social disadvantage is the causal or correlational factors surrounding a failure to thrive within the preschooler's social structure.

This study explores the social structure that exists in the preschooler's school and home front with emphasis on the disadvantages in that structure that affect learning outcomes. At school, the teachers, assistants and administrators are investigated. On the homefront, the family dynamics are investigated. Though this is not by any means intended to be a conclusive study, it has led to some findings that are consistent with the Vygotskian sociocultural theory. The theoretical antecedents are first elaborated and subsequently, details of the actual study. An expository approach is used to narrate the findings and make informed recommendations for pedagogical practice.

Literature Review

The study of a child's learning and development has been a central theme of discourse in interdisciplinary research about education. It would be amiss to probe a study on early childhood education without reverting to some of the research and pedagogical influencers like Montessori, Dewey, Piaget and Vygotsky. Their works have laid foundations in what is now known about the development of a child socially, culturally and psychologically.

Montessori advocated that knowledge could be developed in children by allowing them to freely interact with their environment through engagement in activities that suited their developmental planes. This trifold approach covers planes of absorption, sensitization and normalization. For the preschooler (aged 3 to 5), it is characterized by the ability to easily soak up environmental information, exhibit a definitive social behavior and a dedicated application to happy work utilizing his or her own constructive energies (Montessori, 1995). This constructivist approach to learning is also shared by Dewey and Piaget; Deweys' being more a point of view or outlook on the world than Piaget's empirically grounded theory. Dewey held that humans were actively involved in the self-mastery of their world rather than being acquiescent reactionaries to their environment, evidenced for instance, in a child's instinctual curiosity. Such he believed should be leveraged in formal education (Dewey, 2013).

However, for established theories in childhood cognitive development, review of literature has traced the origins primarily to the stage theory of cognitive development and the sociocultural theory, by Jean Piaget and Lev Vygotsky respectively. For Piaget and Vygotsky, they both focused on how knowledge develops or is formed in a child, though from different perspectives. Piaget approached his study from the angle of the child acting on the environment,

in what is called a child-centered view of learning. Vygotsky's approach is from the angle of the environment acting on the individual which is known as an other-centered view of child learning.

Piaget believed that there was a connection between scientific knowledge and the psychological development of a child. Though he alluded to such knowledge constituting of sociological, psychological and epistemological elements, his studies dwelled on the latter. He charted development of an individual from a biological perspective (Brown, 1999). His developmental stage theory proposes four stages of cognitive development; the sensorimotor stage, the pre-operational stage, the concrete operational stage and the formal operational stage. The preschooler features on the early spectrum of the pre-operational stage where they have a penchant for pretense and play. This has been of practical benefit in schools as teaching practices are adopted to be cognizant of the abilities associated with a particular stage of development.

Vygotsky's sociocultural theory, which is thought to have been influenced by the lapses in Piagets, argues that innate cognitive development in children is formed in conjunction with social factors. According to Daniels (2009), "Vygotsky was particularly interested in two types of concepts: the scientific and the everyday or spontaneous. By 'scientific concepts', Vygotsky referred to concepts introduced by a teacher in school; spontaneous concepts were those that were acquired by the child outside contexts in which explicit instruction was in place." (p. 29). He presented a reciprocal relationship between the scientific and spontaneous concepts as regards a child's knowledge formation.

Though there has been discourse about the divergence of Piaget's and Vygotsky's theories in earlier interpretations, more recent studies have shown otherwise (Zaretskii, 2009). Piaget and Vygotsky agree on the concept of knowledge evolution, though unlike piaget, Vygotsky's

emphasis was on the cruciality of social interaction in such. It is thought however, in some circles that, Piaget was more aware of the link between individual and social factors in knowledge construction in a child than persistent critiques in literature might lead us to believe. "Piaget believed that knowledge construction was simultaneously social and individual and that these factors could not be separated and one made prior… Piaget differed from Vygotsky in that Vygotsky believed such separation was possible and made the social primary. They also may have differed with respect to what part of knowledge acquisition they held to be dialectical in nature. But all in all, they were very similar" (p. 63, Brown, 1999). They both also feel that learning should be in accordance with the developmental level of the child. And like Montessori and Dewey, recognize the role of play for preschoolers in a formal learning environment. With such a confluence, the premise of this research is that the role of the child by himself as well as subject to the influence of his social structure, are equally instrumental in cognitive development. This is accommodated by a term Vygotsky refers to as the Zone of Proximal Development (ZPD).

Vygotsky (1963) illustrated using the example of two children, of the same age who are at the same level in their actual development. They however solve problems at different levels with one child being able to solve problems of a much higher mental level than the other. This would translate to both children, having different ZPDs. What then is the ZPD? "The range of things children can do with the help of adults or in collaboration with them, the range of these processes, Vygotsky called the "zone of proximal development," distinguishing from the zone of actual development, within which children manage all actions independently". (p. 71, Zaretskii, 2009). If Piaget's work alludes to actual development, then Vygtosky's is proximal development.

Hence, this establishes that; (a) a preschooler can perform much more in formal learning environments active participation from adults in his existing social structure and (b) as mentioned above, there is an interdependence between concepts learned in the classroom and everyday concepts (at home).

Knowing the role the social structure in cognitive development leads to the following research questions, specifically;

For an educationally at-risk preschooler;

- What social structure exists in the school?
- How does the participation of the school structure affect learning outcomes?
- What social structure exists at home?
- How does the participation of the home structure affect learning outcomes?
- What is the relationship between the learning that occurs in school and at home?

Methodology

To investigate the social structure involved in the education of a preschooler from a low-income or otherwise socially disadvantaged environment, a qualitative approach was utilized. This method included non-participant observation and semi-structured interviews. The aim was to probe the everyday interactions that drive the educational choices of all involved stakeholders. The observation sample was purposively selected at the initial stage, from which the interviewee sample emerged.

Participants

The demography of the study is set in a midwestern city in North America with an average income of approximately $40, 000 and a population of about 20, 000 people. In this neighborhood, a non-profit federal and state funded school was selected with two campuses located within the same school district. Both sites were considered in the study.

The population sample observed were 3-5 year old preschoolers who were attending these schools. At each campus, two of such preschool classrooms were selected for observation, making a total of four classrooms. Each of the classrooms had a teacher and assistant present at the time of observations. The ratio of adult to child is one to ten and all classrooms were operating at maximum capacity. Cumulatively, eighty preschoolers were observed. In addition, this was followed by semi-structured interviews with all eight teachers/assistants and the two campus managers.

Data Collection

The data collection process began with prior approval by the school and parental consent to conduct the study in exchange for anonymity and confidentiality. There was an initial walk-through of the site and brief introduction to the interviewees. Two tools were primarily used; observation and interviews. Non-identifying information was collected about all the participants. For the preschoolers, this information includes; age, how long they've been attending the school, reported incidents (from home), history of absences (with reasons if any) and notes from their most recent home visit. For all who were interviewed, information was collected about their; role (teacher or assistant), status (employee, volunteer or intern), duration (how long they have been

working in that capacity) and work hours(how many hours they work per week). The work hours are subdivided into office hours(hours spent on teaching and administrative work) and non-office hours (overtime, uncompensated hours that go beyond what is required).

The observation approach used in this project detailed “thick” descriptions of the school’s environment, field notes and a field journal/diary. The physical environment was noted as well as the student-adult (teacher or assistant) interactions. Each site (classroom) was labelled A, B, C, D. Below is the standard observation master sheet, register and planned schedule used;

Main Site	**Subsite**	**No. students registered**
Campus #1	Class A	
	Class B	
Campus #2	Class C	
	Class D	

Table 1.0: Observation Master Sheet

Subsite: **No. Students Present:** **No. Adults Present:** **Date:** **Time In:** **Time Out:**				
ID	Task	I	A	Notes
#1	Building	needed help fitting two lego blocks	assistant demonstrates with 2 lego pieces	- student completes task - one-on-one help - the student requested for help
Key(s). I (If working independently), A (If working with Adult)				

Table 2.0: Observation Register with example

Weeks 1 -4, Class A-D			
Week 1, Class A			
Day (M/Tu/Wed/Thurs)	Date	Start Time	Completed (Y/N)
Monday		11.00am to 12.00pm	
Tuesday		11.00am to 12.00pm	
Wednesday		11.00am to 12.00pm	
Thursday		11.00am to 12.00pm	
Week 2, Class B			
Monday		11.00am to 12.00pm	
Tuesday		11.00am to 12.00pm	

Table 3.0: Planned Observation Schedule

The Observation Master Sheet in table 1.0 was filled out once at the beginning of the study. There was an Observation Register (table 2.0) for each hour of study in the Planned Observation Schedule (table 3.0). The observations were conducted at the same time everyday for four weeks. Each observation period lasted an hour, just before the children's lunchtime as shown in Table 3.0 above and each week was dedicated to a single class. Four hours of observation per class for all four classes totals sixteen hours of observation.

As a follow-up to each observation, a same day informal interview was conducted with the teacher and the assistant. The questions were open ended and covered; preschoolers performance, at home assignments, activities, interactions and the like. During the lunch time (12.00 - 12.30pm), which follows the observation hour, one adult (teacher or assistant) stayed in charge of the preschoolers as the other adult chatted for thirty minutes. Both adults alternated for the week. These chats or informal conversations occurred usually in a quiet corner within the

classroom, if the classroom was large enough or just outside the door of the classroom while the door was ajar. This was for the interviewee to able to offer help to the working adult, if necessary. By the end of each week, each adult had been interviewed twice, for thirty minutes each time. The interviews were all timed and recorded on a voice recorder. Each interviewee was identified by the file name using the format, day_date_class_role_count. For example, m_0425_a_t_1 means interview was conducted on Monday, April 25th, for the teacher in Classroom A and this is this first interview for the teacher. Role can be 't' or 'a' for teacher or assistant. Count can be '1' or '2' indicating if that is the first or second interview for that adult. By the conclusion of the data collection, each of the eight adults were interviewed for an hour each, totaling eight interview hours.

The final stage of the interview was conducted in a closed office session with each campus manager. This interview was conducted for each Friday, following the Monday to Thursday data collection at their respective campuses. The interview was open-ended to account for as much administrative information they could provide and verify some of the information from the teacher interviews. They usually started out formally before delving into more open ended questions. The administrative interviews totaled four hours, for an hour weekly per the two campus managers.

Data Analysis

Qualitative methods were used to analyze the twenty eight hours worth of data collected.The observations were collected onto excel spreadsheets. The interviews were then transcribed by a professional. The data was imported into the software NVIVO with categories

for each participant and other accompanying resource objects. Though the software provided some analysis, this was to supplement the analysis also carried out by the author. This produced the following narrative expository model that is illustrative of the theme of this study.

Results

Each classroom has twenty children, who usually live within the vicinity of the school. Some children are able to walk from the house to their schools, while others are transported by the school bus. This study did not find any student that had to commute further than the distance covered by the bus. The percentage ratio of male to female students is roughly 50:50. The teachers and teaching assistants were all female, all but one teacher who was male. The administrators were male and female. The classroom was representative of many different ethnicities in roughly equal proportions. 80% of the children will be considered as belonging to Vygotsky's secondary disability class, 10% belong to the primary disability class and the other 10% belong to neither. The preschool operates year round, Monday to Friday except for public holidays and scheduled term breaks. A typical class day begins at 8.00am and ends at 4.00pm. The children are provided with two main meals and a snack each day.

Teacher

The teachers were required to work daily from 7.00am to 5.00pm. However, they reported working even longer hours when extracurricular activities were involved. They were required to set-up class timetable, provide learning material, feed and care for the children. In addition, they also had to grade assignments and turn in reports to the campus managers.

Administrator

The campus managers were responsible for the day to day operations of the school. They had to ensure that resources required for the each school week was available such as meals and stationery. They were also responsible for overseeing that the campus was run to budget, schedule extracurriculars involving parents and liase with sister campus sites.

Parent

The parents were required to drop-off and pick up children from the bus-stop daily. They were to oversee that the child had completed school assignments, were in good health and engaged in the learning activities outside the home. They were also invited to school extracurricular activities e.g the family night on the school campus and required to host two home visits from their preschoolers teacher twice a year.

Discussion

Teaching Practices

Within the classroom the teachers had a fluid interaction with the students. They each knew their students names and often their personalities. On several occasions they were able to tell if a child was acting uncharacteristically. Children that were known for being bold for instance might act withdrawn on one day and the teachers were often good at identifying that. The teachers were found to be responsible for much more than helping children learn however. Their biggest contributions were the time and effort they put in outside the class. This was evidenced in the type of almost maternal relationship shared with their students. A child once

came into school crying and confided to the teacher that her mum was arrested the previous night. Because of the nature of their job, they have to be emotionally involved. This translates into a learning environment of trust and is reflected in class interactions. Children easily asked for help most times. The teacher support was crucial to helping the students complete the tasks.

Administrative Involvement

This program is federally and state funded; as a result, parents do not pay any tuition fees. This also means that the school administration has to run schools within a specific budget. They apply for funding each year and the amount awarded varies from year to year. There is a lot of paperwork involved as reports are prepared weekly and monthly basis. This is required for grant applications. The administrators also have to get involved in child welfare issues outside of the office to help the children stay in school. This ranged from organizing campaigns and recruiting volunteers to scheduling home visits. This showed a commitment to helping the child meet learning outcomes outside of the classroom.

Parental Involvement

Parental involvement where absent, was really absent. Sometimes children came to school hungry and weren't picked up from the bus stop. The parents failed to sign off on health checks or assignments on time. According to the interview information, extracurricular activities designed at the school to involve the parents had low turn-out. Parental involvement was highly valued and positioned to be influential to meeting learning outcomes.

Limitations

A topic of this magnitude will best be served by more field hours and perhaps a mixed methods design. It will also be beneficial to study the homefront of the preschoolers or to obtain information directly from their parents and guardians. This will mediate the bias here, as those parties get to present a first hand account. A tested observation tool and structured interview format will ensure validity of the research and its replicability by others. This will result in more definitive findings, rather than the expository approach here.

Conclusion

The findings in this study that are consistent with other similar studies found in literature (Currie, 2001). An active social structure is necessary for an at risk preschooler to thrive in the formal learning environment. It also holds that there is a direct connection between concepts learned in the classroom and outside the classroom (Daniels, 2009). For the socially disadvantaged, there is a self-pepertuating cycle that does not work well to the child's educational detriment. It is my hope that this study emphasizes primarily the role of the child's social structure in their knowledge development. Having a responsive educational system that employs feedback and conducting long-term studies for at-risk preschoolers will at the very least elicit the information necessary to make the social structure thrive.

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