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Special Topic 2: The Physical Context of Child Development

Gary W. Evans' 2021 article on the physical context of child development sheds light onto an issue of child development and mental health that is often overlooked: noise and activity levels surrounding children that can be persistent stressors over time. The analysis presented in this report calls into question what other environmental factors can affect the learning and socialization of children, positively or negatively. The main argument of this article is that distractions caused by noise, chaos, or crowding within children's physical environment are negative to their development and often lead to adverse effects on educational performance. Findings like these can help us understand what is most conducive to children's learning and development in order to cultivate a better physical environment for them.

Evans argues that physical contexts in which children spend their time are important because they encompass an important dimension of children's developmental contexts. He outlines a three-dimensional model of contexts, which includes elements immediate to the child and elements that are more holistic. Examples include a child's relationship with their caregivers (proximal) to the political environment of the time (distal) (Evans 42). One of the three dimensions includes environmental effects, categorized as indirect or direct effects. The article focuses on these environmental effects, because they include the physical environment of the child. Direct effects include the physical environment of the child, at home, school, or at other places they frequent. Indirect effects are physical environmental factors affecting anyone close to the child, like a caregiver (Evans 42). This takes place because people who the child interacts with are also affected by their physical environments, which in turn affects their interactions with the child (Evans 42). Because these physical environments impact how children feel, how focused they are, and how others interact with them, they are important to study when determining how to best cater to child development. In my opinion, direct effects are more pressing matters to study, because they are more easily controlled and immediate to child development than indirect effects are. For example, research into noise, crowding, and chaos in school classrooms is something more likely to result in change than, say, the noise, crowding, and chaos that parents deal with in the workplace that then affects their children.

In my opinion, a good way to conduct an experiment that could test the effects of noise on academic performance would involve laboratory testing in a controlled setting. I would design an experiment with twelve groups, one control and three experimental groups each for three subgroups based on age range. The age groups would consist of children in early, middle, and late childhood, respectively. These would be groups that were smaller, around ten children each, to make sure the classrooms were not crowded. I would have these groups complete an age-appropriate test based on material they would learn in a classroom setting beforehand. The

control group would learn in a classroom setting with no external noise or distractions besides the other children in the classroom and during the subsequent test. One experimental group would be exposed to some external noise (like transportation sounds) during the classroom portion, but would have quiet during the testing period. One experimental group would be exposed to external noise during both the classroom and testing portions of the experiment, and the final group would have a quiet classroom, but a loud testing environment. This would allow us to determine which environments are most important to keep quiet. For example, does quiet in the testing room or in the classroom matter more? From this, we would be able to see if there was a causal relationship between noise and worse test scores.

Culture and other social factors are very relevant to the physical environment in which children develop. Our book frequently discusses how lower socioeconomic status can result in more housing instability, something that adversely affects child development. Children from families with lower socioeconomic status are more likely to live in sub-optimal housing conditions (Evans 45). In this situation, a piece of context like socioeconomic status very directly affects housing and therefore child development. Children who are poorer may live and attend school in more urban areas with heavy transportation, which can be very noisy and disruptive. Financial stress may lead to more caregiver arguments in these homes, which can also contribute to noise and stress level for children. The physical environment that children function in is very directly related to cultural and social factors such as socioeconomic status.

The United States Environmental Protection Agency's (EPA) article on "Noise and Its Effects on Children" goes hand-in-hand with the article from Evans. This EPA article discusses noise-induced hearing loss (NIHL), which is "a permanent hearing impairment resulting from prolonged exposure to high levels of noise or by sudden high level (impulse) noise." Children can develop hearing loss because of noisy recreational activities, like sports, video games, listening to music, etc. This information only supplements Evans' arguments about sound being harmful because it is distracting. Not only does it draw focus from whatever the child is doing, it can cause permanent hearing damage. With this information in mind, we can argue more strongly that changes must be made to children's learning environments.