

# Chapter 12

## Using Bronfenbrenner's Ecological Framework to Design Support Systems for Education and Special Education: Learning About Thought Systems

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### ABSTRACT

*Principles of Bronfenbrenner's Ecological Theory were reviewed to examine potential uses for classroom teachers and re-imagine Bronfenbrenner's System's Theory into a series of novel frameworks that could be practically applied to students' lives and experiences outside of the classroom environment. This interpretive review offers educators and families novel conceptual frameworks intended to foster deep understanding of individual students and to provide practical tools to visualize and navigate the unique web of human relationships and support available outside of the classroom. Fourteen newly created "systems theories" are briefly presented here.*

### INTRODUCTION

Richard Buckminster Fuller once said "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete." This chapter is intended to review and build upon the ecological theory of systems that influence human development and provide education practitioners with

venues of envisioning an interactionist, rather than static, model of collaborating with school students, families, and institutions. This review of teacher-made creative models adopts an interpretivist perspective to add to the existing educational model a fluidity that is being forgotten due to legislative regulations that increase pressure on teachers and administrators to focus on "test results" and other fixed measures of achievement.

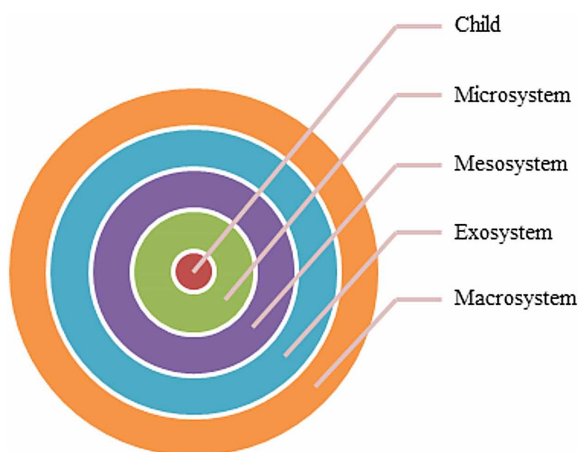
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## BACKGROUND AND MAIN FOCUS

Bronfenbrenner (1979) set up a system model for understanding human ecology, starting from the *microsystem* representing the developing child, to the *mesosystem* encapsulating “interpersonal structures in the form of dyads and N+2 systems” (p. 209), the *exosystem* consisting of one or more settings, and to the *macrosystem* referring to cultures and subcultures. “The ecological environment is conceived as a set of nested structures, each inside the next, like a set of Russian dolls” (p. 3; see Fig. 9), in which “environments are not distinguished by reference to linear variables but are analyzed in systems terms” (p. 5), i.e. multi-systemic.

Urie Bronfenbrenner's Ecological Theory is a theory rooted in the belief that a child develops interactively, in response to various levels of environmental relationships and influences. This model situates the child at the center of the world, and it considers the child as an active participant in his/her learning and development. The various human and institutional relationships available to the child are envisioned as a series of systems layered concentrically around the child, similar to a Russian Matryoshka doll (see Figure 1).

Figure 1. Bronfenbrenner's Ecological Framework



These systems influence the child directly (the microsystem formed of immediate relationships) and indirectly (the Mesosystem – pertaining to second-degree interactions about the child among interested parties; the Exosystem – regarding contextual events that affect the microsystem; the Macrosystem – consisting of cultures, policies, economies, etc.; and the Cronosystem related to time lapse) (Bronfenbrenner, 1979; Friend & Cook, 2013).

Currently, there is no published or recorded individual or collective practical interpretation of this theory for application in classrooms or for teacher training. Until now, Bronfenbrenner's theory remained a philosophy of education matter discussed en-passant through a few pages of text in occasional education courses. This chapter intends to fill this gap in the literature. Every one of the following application models uses as single reference the first description of the ecology of human development framework as laid out by Bronfenbrenner, and this why each of the models discussed herein is original, highly creative, directly applicable, and credited to its author (the names written in parentheses after each theory name belongs to its author). In its current form, Bronfenbrenner's ecological framework may seem rigid, confined to specific boundaries, and pretentious to unapproachable by education practitioners (teachers). In the context of a graduate level education course, educators were presented with the task of making the ecological framework accessible to their colleagues, students, and families and applicable to their classrooms. This article is intended to fill gaps in literature in multiple ways: (1) little has been published lately about the ecological perspectives put forward by Urie Bronfenbrenner (1979) and Gregory Bateson (1987), and, because these theories have multiple applications, especially in the fields of education and special education, this study fills the need for educational goal-setting related to ecological and sustainable changes; (2) this manuscript aims to bridge gaps between theory and practice through

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