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SOME REASONS TO ADOPT MULTIPLE INTELLIGENCE THEORY IN CHILDHOOD EDUCATION: AN OVERVIEW OF THE ITALIAN CONTEXT

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ABSTRACT

As we are interested in the Multiple Intelligence Theory (MIT), our aim is to provide some reflections about the possibility for educators, teachers and experts to refer to this theory in their work. Some reasons supporting the theory's use are provided, as well as key distinctions in the Italian application of the use of the theory.

Key words: Multiple Intelligence Theory, Multiple Intelligence Theory Application, Child's development approach, Child education, Teacher training

INTRODUCTION

There are various reasons to adopt Multiple Intelligence Theory (MIT) (Gardner, 1993) in infant and preschool education, i.e., from birth to age six. These variations can be understood in terms of their different aims. For example, the aim of adopting MI may be to improve teachers' understanding of the range of human intellectual abilities or the aim may be to address students' relative weaknesses. After a brief presentation of the Theory, four reasons, each with different aims and different challenges, are considered below.



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1. THE THEORY OF MULTIPLE INTELLIGENCES

The theory of multiple intelligences was proposed by Howard Gardner, a developmental psychologist at Harvard University. Using a wide variety of evidences, detailed in "Frames of Mind: The Theory of Multiple Intelligences" (1983), Gardner argued for eight relatively autonomous intelligences, such as in the following list.

- *Linguistic intelligence* (LI) features sensitivity to language in spoken and/or written forms, the ability to learn languages, and to use language in pursuit of one's goals.
- *Logical-mathematical intelligence* (LMI) concerns the capacities for mathematical operations, logical analyses, and scientific investigation.
- *Musical intelligence* (MI) facilitates composition, performance, and appreciation of musical patterns.
- *Bodily-kinaesthetic intelligence* (BKI) involves the use of all or parts of the body to solve problems or fashion products.
- *Spatial intelligence* (SI) entails the perception, use, and transformation of spatial information.
- *Personal intelligences* (PI) enable individuals to recognize and make distinctions among others' feelings and intentions as well as to understand themselves and to use this understanding effectively to manage their own lives.
- *Naturalist intelligence* (NI) allows people to distinguish among, classify, and use feature of the environment.
- *Existential intelligence* (EI) consists in the capacity to use philosophical reasoning, to manage justice, to deal with religious issues².

Over the years, Gardner's theory has been applied in a wide range of educational settings and student populations.

2. TO BUILD EDUCATORS' AND TEACHERS' FRAMEWORK FOR UNDERSTANDING CHILDREN'S PLURALISTIC BEHAVIOURS

An initial reason for adopting MIT in teacher training is to equip future teachers with a framework for understanding children's pluralistic behaviours and products. Typically, educators and teachers emphasize the development of children's linguistic and logical abilities. In fact, these are the main areas they evaluate in early child development. In comparison, spatial, musical, bodily-kinaesthetic, or naturalistic abilities are not seen as essential components of cognitive development, but instead are often seen as complementary, "plus-value" qualities. Thus, it is usually quite simple for an educator to respond to a question like, "When did the child produce her or his first words?" In contrast, few of them can answer, "When did the child go up and down stairs using alternate steps?" or, "At what age did the child reliably sing an interval of a major third?" Obviously, while individual differences exist, there are critical periods for the acquisition of language; similarly, there are characteristic periods for the coordination of feet and production of melodic intervals.

The key reason for providing teachers with an MIT framework for understanding students' pluralistic behaviours is to improve the chances that teachers will regard the whole range of children's cognition as significant. In line with this reason, teachers may provide wider attention to children's interests and activities. Yet, adopting MIT for this reason does not require changing the organization, space, schedule, or adults' role within the nursery or the infant school.

² Actually, existential intelligence is not fully considered an intelligence by Gardner, as it does not satisfy all the criterions the Author uses to establish that an intelligence is an intelligence in his Theory.



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2. TO OFFER AN ENVIRONMENT, AND SYSTEMATIC SUGGESTIONS, FOR DEVELOPING THE WHOLE RANGE OF ABILITIES

While the preceding reason for adopting MI targets teachers' conceptual framework, the second reason targets the development of the range of children's multiple intelligences. This second aim requires greater action from educators and teachers, because the educative context has to be equipped with a variety of physical, cultural, and social affordances (Gibson, 1977) to engage the range of children's strengths. The aim here is to stimulate all the potentialities and "languages" of children, such as bodily, musical, or spatial. In turn, this requires increasing the value of different codes in educative settings and didactic interactions. The uses of these different languages and codes have to be coherent: children have to be allowed to use them, and teachers need to consider the many different ways in which an intelligence may be expressed (Kornhaber, Fierros, & Veenema, 2004). For example, linguistic intelligence may be expressed through storytelling, graphic representations (as in the case of a mural or story cards), mime, music, or emotional responses. We know that graphic representations, mime, musical or emotional responses are already taken into account in the educative process – we are not offering something wholly novel. However, what is novel is the argument that these codes might be *equally* considered in efforts to address children's development.

3. TO BUILD MULTIFACETED PROFILES THAT RESPECT INDIVIDUAL CHILDREN'S DIFFERENT ABILITIES

A third and more complex reason to apply MIT consists of both offering a context to engage all the intelligences and *also* systematically observing children within this context. Documenting their observations (in written texts or through portfolios student's work) of children's specific behaviours or interactions can be useful for teachers in constructing a holistic vision of children's competences, both those competences that are emerging spontaneously during free play and those used in more structured contexts. In fact, systematic documentation of children's actions can provide insights into children's implicit abilities, because the abilities themselves are never directly observable. For this third use of the theory, educators and teachers need deeper knowledge of MIT and greater competence in relating children's observable actions to their probable underlying abilities. For example if a child is interested in playing cards, dominoes, or similar games, it can be a signal of a logic-mathematic ability; if an infant is often interested in beating a cup or a table with a spoon, it could be a manifestation of musical ability. It is clear that quite an effort is needed to observe any given child and to formulate a dynamic and substantial image of a single child that incorporates the plurality of intelligences. Yet, if this effort runs well, it can provide documentary evidence of each child's areas of strength and weakness. That is to say, it yields a realistic, multifaceted map of the individual child's development.

4. TO REMEDIATE WEAK AREAS IN ORDER TO BALANCE CHILDREN'S PROFILES

A fourth reason to apply MIT is to draw on children's profiles to promote greater balance in their development. One of the opportunities that might result from collecting systematic observations of children is to address their relatively weaker areas. Documentation of a relatively weak area may offer teachers insights about stimuli or interventions that they could introduce, potentially ones that build on children's strengths. In accordance with Gardner's argument, we recognize that every human being is equipped with a unique profile of intelligences, and we are not asserting that every child has to develop all her/his potential intelligences to the same high level. However, we stress that damage to individual development, via ineffective or careless institutional and educative contexts can be reduced. Certainly, to exercise weak areas is often an action without meaning, and to demand that children



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repeatedly make things that they dislike and that are not interesting to them can easily lead them to fail. Repeated failure can be discouraging and, in a delicate period for the development of self image, it can be damaging to children's self-esteem. Using MIT at this fourth level means using the child's available skills and competences to enhance the development of weak areas in an indirect way. Gardner and his colleagues on Project Spectrum (Chen, Krechevsky, & Viens, 1998) called this process *bridging*. This consists of using the contents of a child's strong areas to involve the child in less interesting or successful areas. For example, a child who has areas of strength in spatial intelligence and bodily-kinaesthetic intelligences and who usually likes to build and take apart machines, can be invited to speak about her/his products, thereby bridging to an area of weakness in linguistic intelligence. Another way to bridge is to use a child's preferred approach to learning in a domain of interest and transfer it to an area that the child found less interesting. For example a task entailing numbers, for a child whose weak area is in logic-mathematical intelligence, might involve a musical work, an area of strength. In addition, some structural components in a successful area can be employed in order to realize performances in other, weaker areas. For example, the sensitivity to rhythms – a key area in musical intelligence – can be involved in engaging a child in poetry, despite the child's relative weakness in linguistic intelligence. That same sensitivity to rhythm might also be used to help involve a child in performing a dance or athletic exercises, despite weakness in the area of bodily-kinaesthetic intelligence. In such cases, educative actions benefit children by engaging them in experiences that help them to know their own languages, even those that are less explored. Furthermore, in this way, children can use successful experiences to develop the necessary self-confidence to manage tasks in less secure domains.

5. FURTHER REFLECTIONS AND CONCLUSIONS

It is quite clear that each of these four aims for using MIT implies consistent work by teachers and educators. In the Italian experiences, the first three aims raise relatively few problems. In fact, the MI theory in Italy seems to make a good deal of intuitive sense to teachers, and it offers them new ways to conceptualize teaching and to value students. The theory generally is seen as supporting both teachers' and students' thinking and development. It is also seen as a way to connect students in school with activities beyond school.

One key distinction is that, with regard to supporting students' thinking and development, there is a surprising degree of uniformity among the Italian teachers concerning their goal for the theory's implementation: Primarily, teachers sought to bring students into "balance". Italian teachers saw the theory as a means to give students many legs to walk on. This idea of balance, among intellectual, social/emotional, physical, and artistic capabilities, is highlighted over and over by teachers.

This is the reason why we consider it useful to develop a training model for teachers and educators to acquire competences in observing children through MIT. Our research is now oriented to provide such a tool (Nicolini, Alessandri, Bilancioni, 2010).

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