## Mother-child interaction within the Zone of Proximal Development. Impact of adult educational level and socio-affective proximity on the effectiveness of tutoring.

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## Abstract

Research problem. Adult-child interaction within the zone of proximal development plays a central role in child cognitive development. The effectiveness of teaching to promote learner competence during a joint problem solving session depends on the accuracy of the zone of proximal development perceived in the mind of the tutor. Therefore, it is related to such variables as the *tutor's educational level* (formal education promotes more abstract and flexible mental representations of the cognitive demands of the task) and the *socio-affective proximity* between interlocutors (shared experiences enable the tutor to determine the zone of sensitivity to instruction and to form a more accurate hypothesis of the child's level of competence and their need for assistance).

Aims and methods. This study aims to estimate the effects of adult educational levels and socio-affective proximity between interlocutors on the effectiveness of informal tutoring. The participants comprised 66 boys and girls aged 3-5 years and 66 women with different educational levels and varying degrees of socio-affective proximity with the child with whom they interacted (mothers who lived with their children, mothers who visited their children at residential care centers, and women previously unknown to the children). Dyadic interaction in a classification task was assessed with microgenetic analysis using a codification system following sociogenetic principles.

Results. Educational level does not predict tutoring effectiveness; socio-affective proximity does. Mothers with low educational levels are effective tutors when they maintain a high degree of socio-affective proximity with their children. The principal keys to effective tutoring associated with socio-affective proximity are: a) encouraging the autonomy of the child: avoiding both initial aid when placing each new piece and highest level aid which solves completely the operation; and b) adjusting the assistance provided according to the competence demonstrated by the child: following the contingency rule (especially in the provision of proactive aids), and temporarily tolerating errors, providing the opportunity for the child to become aware of their own mistakes.

Conclusion and findings. These findings are noteworthy to design future social intervention programs focused to instruct parents with low educational level on the importance of frequent and appropriate interactions with their children.

*Keywords:* informal tutoring, zone of proximal development, ZDP, tutorial effectiveness, educational level, socio-affective proximity

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