

The Biology of Education: How Children Learn Through Free Play and Exploration

A. Karl Groos's Practice Theory of Play

Groos's *The Play of Animals* (1898): Young mammals practice species-specific skills in play.

Groos's *The Play of Man* (1901). Young humans practice species-specific *and* culturally-acquired skills in play. Innate tendency to observe what elders are doing and incorporate that into play.

B. Children in Hunter-Gatherer Cultures Educate Themselves Through Play

Children & teenagers allowed unlimited freedom for self-directed play and exploration. In play they acquire the skills, knowledge, values, and lore of their culture.

C. Children at the Sudbury Valley School Educate Themselves Through Play

Day school for children age 4 on up; inexpensive; nonselective; operating since 1968. Democratic administration. Students educate themselves, mostly through self-directed play and exploration.

Evidence that the school works: Follow-up studies of the graduates. Also, follow-up of unschoolers.

D. The Optimal Context for Self-Education

1. The social expectation (and reality) that education is children's responsibility.
2. Unlimited freedom to play, explore, and pursue own interests.
3. Opportunity to play with the tools of the culture.
4. Access to a variety of caring adults, who are helpers, not judges.
5. Free age mixing among children and adolescents.
6. Immersion in a stable, moral, democratic community.

Note how these are the opposite of the typical school context.

E. How Children Learn Through Play

1. Play and Development of Physical and Manual Skills

-Practice, in situation where it is OK to fail.

2. Play and Intellectual Development

-Research showing that a playful state of mind improves hypothetical-deductive logic, insightful problem solving, and performance on tasks requiring creativity.

3. Play and Social/Moral Development

-In social play, children must see from others' points of view, negotiate differences, work to please others as well themselves—otherwise the others will quit!

4. Play and Emotional Development

-Emotional regulation theory of play.

-Young animals put themselves into awkward, moderately frightening situations in play: In running, leaping, climbing; playful chasing; playful fighting. Same for young humans.

-Must also learn to control anger in play.

-Play deprivation, in monkeys & rats, results in inability to control fear and aggression.

F. Decline of Play and Rise of Social & Emotional Disorders

Decline of children's play over last 60 years in America

-Historical evidence & evidence from social science research.

Rise of Emotional and Social Disorders

-Five- to 8-fold rise in major depression & anxiety disorders in children, by unchanged measures.

-Four-fold rise in suicide rate for children under age 15; -Decline in internal locus of control.

-Increased narcissism, decreased empathy.

(References on other side)

Some References

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See also Psychology Today blog, Freedom to Learn: <http://www.psychologytoday.com/blog/freedom-learn> and website: <http://alternativestoschool.com>