



## Children in the Lecture Hall

### A Longitudinal Study on General Interests of Children's University Participants

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#### Summary

based on Stöckli, G. (2011). Kinder im Hörsaal. Eine Längsschnittstudie zu den allgemeinen Interessenorientierungen von Kinder-Universitäts-Teilnehmenden. *Bildung und Erziehung*, 64, 1, 85–99.

Although children's universities have existed for many years (in German-speaking countries since 2002),<sup>1</sup> there still is a lack of longitudinal studies investigating their specific effects on children.<sup>2</sup> To date, the available empirical studies are conceptualized primarily as internal evaluations of the experiences, attitudes, and overall satisfaction of children, parents, and lecturers.<sup>3</sup> In consideration of this research deficit, this study aimed to capture the effects of children's university lectures on the general interests of the participating

<sup>1</sup> Grunder (2010); Janßen (2002); Grunder, Hegnauer and Wagner (2004); Stock and Wecker (2003); Wojewoda (2007)

<sup>2</sup> Brokmann-Nooren (2006); Felt (2009); Grunder (2010)

<sup>3</sup> Grunder, Hegnauer, and Wagner (2004); Bergs-Winkel, Gieseke and Ludwig (2006); Horn (2007); König (2006); Stock and Wecker (2003); Stöckli (2004)

children, age 9-12 years (treatment group  $n = 109$ ), in comparison with a control group of same-age children who have never attended lectures at the university ( $n = 75$ ). The children in the treatment group filled out their questionnaire in a lecture hall at the university immediately before the first (pretest) and after the sixth and last lecture (posttest) of the autumn semester 2009. At the same time, data on the control group were collected in four different classrooms.

*Measures:* An adapted version of the *Allgemeiner Interessen-Struktur-Test* (AIST)<sup>4</sup> [General Interest Structure Test] was used to measure four domains of general interest: *investigative* (four items, including “I like to be engaged in unexplored subjects”), *realistic* (two items, “I like to work with tools and machines”), *social* (four items, “I like to listen to other people when they are in trouble”), and *artistic* interest (three items, “I like to think about stories I have read”). Cronbach’s alpha of the four interest scales ranged from .71 to .86 in the pre- and posttest. In addition, the children’s *attitudes towards science and research* (three items, “Science and research can help to find solutions for difficult problems”) and their *interest in higher education* (two items, “I would like to study at the university in the future”) were assessed. Cronbach’s alpha of these scales ranged from .89 to .90. All answers were given on a 4-point scale (from 1 = ‘not at all true’ to 4 = ‘completely true’). Further, motivation to attend the children’s university lectures was assessed in the treatment group by presenting a list of possible intrinsic and extrinsic motives.

*Results:* The frequencies shown in Figure 1 confirm the obvious predominance of intrinsic motivation to participate in children’s university. In contrast to this, in the view of the children parents as the driving force play a negligible role.

All cross-sectional and longitudinal analyses of interests and attitudes towards science and research included the child’s gender and parents’ level of education as additional factors. Thus, all reported results take these variables into account. The findings showed that already at pretest, children’s university participants differed markedly from the control group in three domains of general interest (investigative, artistic, and realistic), in interest in higher education, and in attitudes towards science and research (see Figure 2). A significant interaction group x parents’ level of education revealed that all children in the treatment group expressed an equally strong interest in higher education,

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<sup>4</sup> Bergmann and Eder (2005). The AIST is based on the person-environment congruence model by Holland (1985).

whereas in the control group this interest accorded with parents' level of education. In addition, the longitudinal analysis confirmed two treatment effects, for artistic interest and social interest. (For further findings, see Stöckli, 2011.)

*Conclusion:* The findings of this study characterize children's universities participants as a definitely highly motivated group of children. Their participation is driven by intrinsic motivation to experience and to enhance new knowledge and to explore uncharted territories. In the framework of the person-environment congruence model by Holland (1985), these children perfectly fit the universities' demands as places of learning, research, and investigation. Accordingly, the challenge for children's universities is not motivating these students but rather keeping and nurturing their existing qualifications.

## Figures

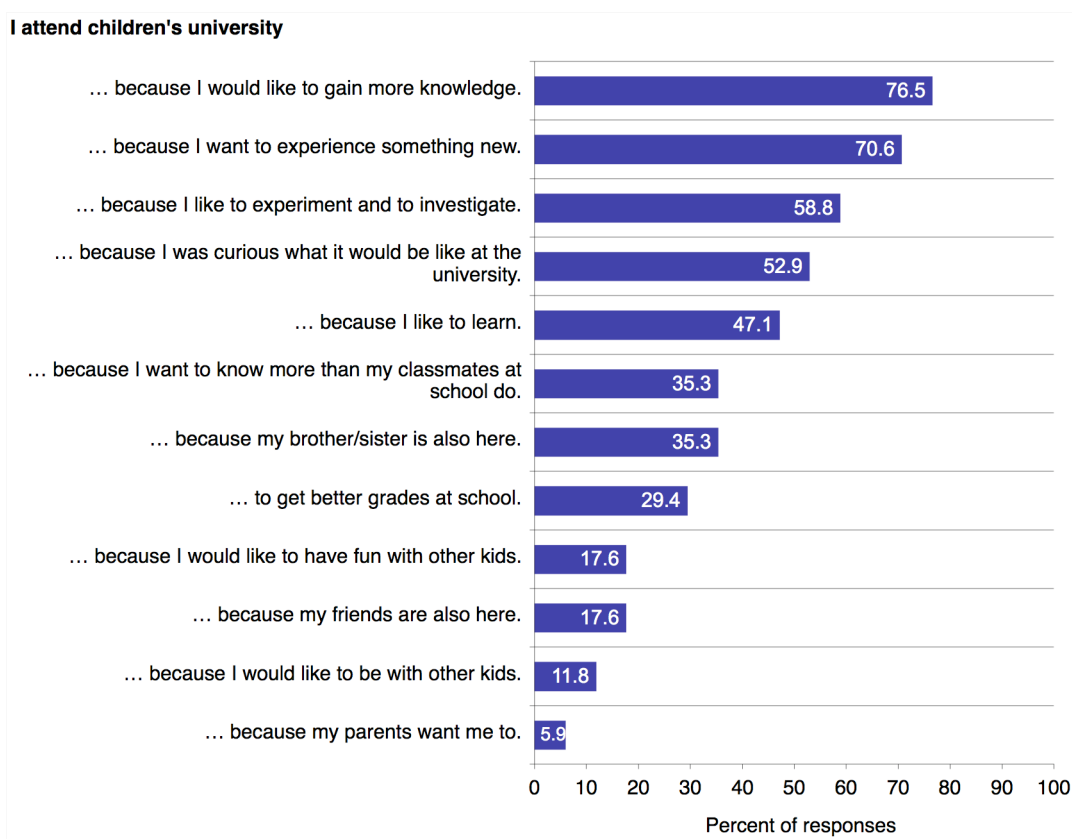


Figure 1. Motives to attend children's university lectures (treatment group, pretest).

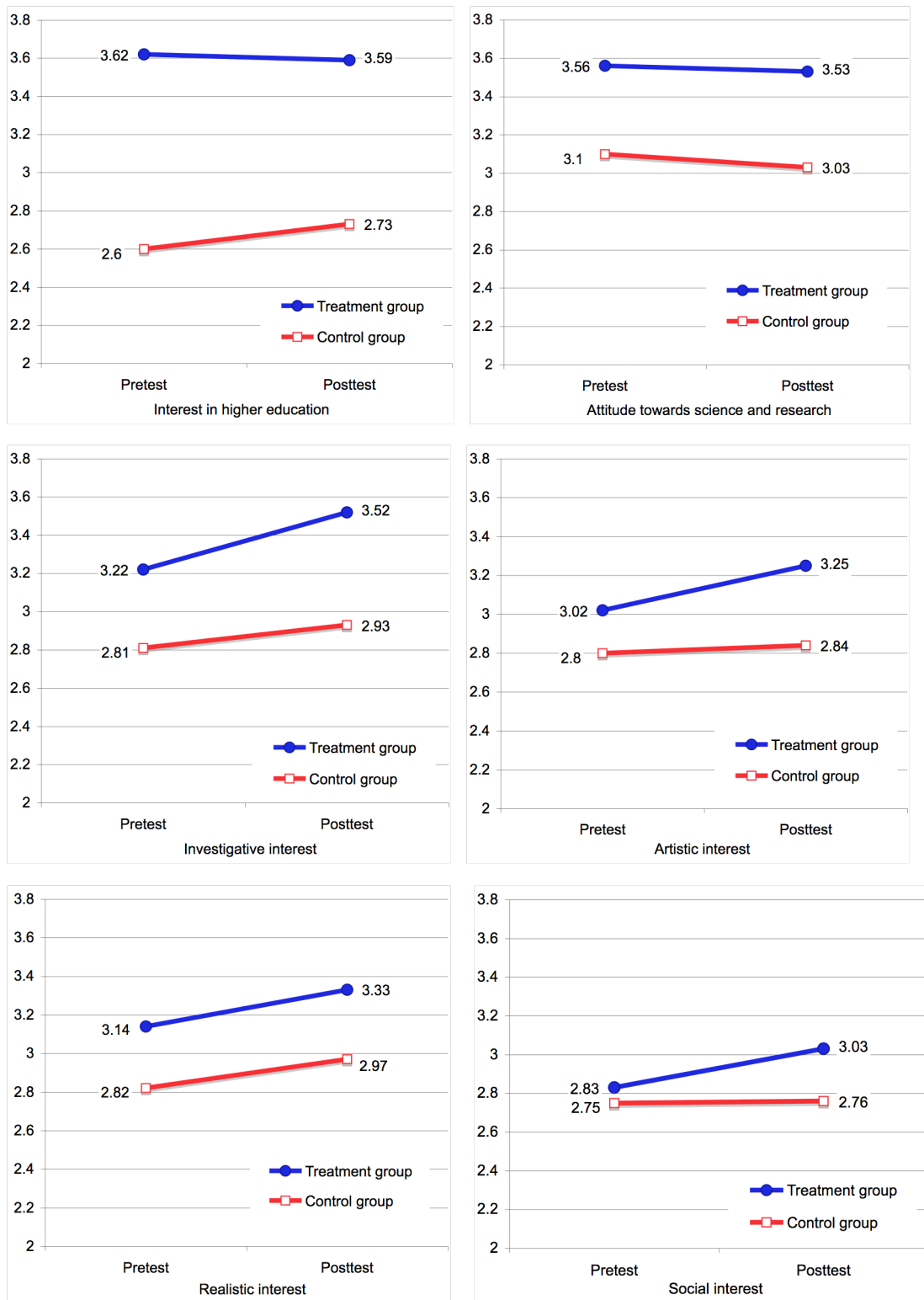


Figure 2. Pre- and posttest means of measured variables.

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