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Nature experiences in a mobile electronically supported learning environment, with special consideration of Arabian children in Germany

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Abstract

This dissertation is concerned with the support of experiences of children at the age of 4 to 8 years when sowing, supplying and harvesting bush beans by a teaching program and an instructional film on different mobile computer devices (tablet PC and iPad). By the characteristics of these devices (touchscreen) also the input and navigation with the hand and/or a finger or a pin become possible, so that also learning and exercise processes during the writing and reading with the children are supported. Among the children in particular were such, which originate from Arab families, which live in Germany, at least for a certain time of years.

It should be examined in the tests whether and how mobile computer equipment for children of this age

- is manageable and meaningful;
- supports their learning processes about nature (development of the bush bean plant);
- supports their learning processes during writing and reading;
- is also helpful, if it concerns Arab children, regarding the Arab writing.

The training/learning attempts had been prepared with different software bases and an instructional film on the mobile computers, among them also a teaching program without written texts. The thereby represented action steps for sowing, care and harvests of bush beans were converted by the children in own actions practically.

The empirical investigations were accompanying to the training/learning processes; data on duration and orders of the learning assistance taken up by the children could be collected and

evaluated with a log function at the computer. Furthermore there were - held by video photograph - minutes of the learning behavior of the children, who were evaluated.

Altogether it showed up that it was possible to offer - with some smaller difficulties for especially the younger children - successful learning assistance.

In this dissertation some possibilities for the improvement and the integration of such mobile electronic devices are exhibited.

In the discussion of the experiences it is thought whether - in the sense of informal learning - such learning assistance would be suitable for giving children of this age - particularly Arab children in Germany – beyond the kindergarten or the primary school nature experiences and educational provisions; also on possible application and developments in an Arab country (Syria) it is referred.