



Your abstract was received. Thank you very much for submitting it. The abstract will now be refereed by members of the Scientific Committee.

<b>Abstract Number: 669</b>	
<b>Date :</b> 2015-02-14 09:56:16	
<b>Contact E-mail</b>	cristina.delbarrio@uam.es
<b>Telephone Contact</b>	+ 34 91 4975212/ 34 665351059
<b>Presentation Title</b>	EVALUATION OF MANUAL DEXTERITY IN EARLY EDUCATION
<b>Type</b>	Individual Paper Presentation
<b>Theme</b>	02. Cognitive processes
<b>Authors</b>	José Eugenio Ortega <sup>1</sup> ; <u>Cristina del Barrio</u> <sup>1</sup> ; Susana Núñez <sup>2</sup> ; Javier Malagón <sup>3</sup>
<b>Institutions</b>	<sup>1</sup> Universidad Autónoma de Madrid; <sup>2</sup> Universidad de Alcalá; <sup>3</sup> Universidad Politécnica de Madrid
<b>Abstract</b>	
<p>The lack of a significant correlation between different tasks of hand dexterity administered to children has recently been highlighted against the existence of a general factor of manual dexterity (Leveresen, Haga y Sigmundsson, 2012). Usually scales, e.g. MABC-2, demand either the use of only one hand (generally the dominant one), or either do not specify which hand should do the task. The present study aims at developing a set of tasks to evaluate manual dexterity in early education involving each hand to identify hand preference evolution. Specifically, the aim is to explore inter- and intra-task correlations using a series of object-manipulation tasks with the following characteristics: reliable; using size and weight adapted to children 3-6 years old; attractive to children same age; short (less than 20 min.); cheap, and to be administered easily in small rooms, and by staff working in early education settings (not necessarily psychologists). In a first study using three tasks - <i>Posting coins</i>, <i>Moving pegs</i>, and <i>Threading eyebolts</i>- involving separately left and right hand (6 trials), 151 children aged 3-6 years have participated. The results show high inter- and intra-task correlations, and one factor explaining 64.03% of the total variance. The next aims in the (in progress) study are: a) to look for the reliability of the tests repeating the tasks one year later; b) to compare each hand performance to explore the development and stability of hand-difference across the various age-groups, and c) to look for the validity of the tests by way of three actions: administering several tasks involving the manipulation of cubes equipped with speed/acceleration sensors; developing a questionnaire to be filled by early education staff, and administering the MABC-2 and PDMS-2 scales for evaluating motor development. A further aim with implications for school and home is to design new intelligent toys for detecting semi-automatic ally typical/atypical developmental pathways.</p>	
<b>Presenting Author</b>	
<b>Name</b>	Cristina del Barrio
<b>Email</b>	cristina.delbarrio@uam.es
<b>Institution</b>	Universidad Autónoma de Madrid