

Editorial

Launching a new scientific journal provokes the question of its *raison d'être* because of the now insurmountable flood of publications. As we know, less than 20% of researchers interested in a given field read more than even 1% of the newly appearing literature. Nevertheless we believe for several reasons that 'Talent Development and Excellence' (TDE) will play an important role, and in four ways.

As its title says, TDE shall first be a place of engagement for two important research currents that have been up to now largely separated: Giftedness research and Expertise research. The former researchers traditionally focus more on talented children, following the development of their achievement prospectively, while the latter traditionally start above all with persons who have already excelled, but of course with an interest in how their achievements developed. We think it is important and desirable for future research to unite these two branches.

Our second wish in connection with TDE is for interdisciplinary access and a simultaneous broadening of traditional problems. Typically, talent development and excellence are investigated by psychologists and pedagogues. By contrast we would like to invite researchers in further disciplines – (educational) economists, jurists, sociologists, political scientists, AI researchers, physiologists, neurologists, etc. – to shed light from each of their specialist perspectives on the process of creativity and achievement development and their antecedents up to the level of expertise and innovation together. Moreover we explicitly exclude any limitation to individuals: Excellence can also be an attribute of a group of persons or a social community, and, in the age of Artificial Intelligence, even the attribute of a machine or machine network.

While on the one hand publications in modern knowledge societies are more and more accessible, on the other the necessary expenses of libraries and universities have risen hugely in the past years. Our third wish is therefore to make TDE freely available, and so the journal can be read online at www.iratde.org. The print version is generously sponsored by the King Faisal University in Al-Hassa.

Finally and fourthly, TDE is the official scholarly journal of the International Research Association for Talent Development and Excellence (IRATDE). We hope that TDE can provide IRATDE-associated researchers with a bit of intellectual community of their own.

Heiner Rindermann, Michael Sailer and James Thompson present a pioneering study on the 'smart fraction' theory. This says that the small share of high-achievers make an overproportional contribution to societal growth and prosperity. Such a finding would of course be the best legitimation for society's support of talent and excellence. The authors investigated whether there existed relations between the scores of 90 countries in international educational studies (TIMSS 1995-2007, PISA 2000-2006 and PIRLS 2001-2006) and a number of societal desiderata such as wealth (GDP), numbers of patents, scientists and Nobel Prizes, government effectiveness, democracy, but also AIDS and homicides. In particular they wanted to find out whether the scores of weaker achievers, average achievers, or of the 'smart fraction' could better predict the factors mentioned. And in fact the authors find clear indications of the prognostic strength of the smart fraction theory: "Our results emphasize the importance of nurturing the highly gifted." Could a new scientific journal start off with any more convincing proof than this of the societal significance of its field of research?

Research areas are only as viable as their methods various. Shane N. Phillipson and Ron Sun propose a new method for giftedness research, which also expertise research has until now applied only sporadically: modeling. Their interest is particularly to examine potential benefits of and problems in modeling the Actiotope Model of giftedness using the cognitive architecture CLARION. We hope this innovative paper will help make giftedness researchers

aware of the advantages of modeling, as well as establish further bridges to expertise research. Especially promising is that modeling with CLARION as proposed by the authors offers a meta-theoretical unifying basis for vigorous scientific exchange.

As circa two decades ago chance became accepted as an independent variable in various models of talent development, it met with the intense criticism of many traditionally oriented scholars. But quite soon several factors were found that, while randomly distributed in the population, do produce a systematic bias. The best studied of these is the birth date: Relatively older students within an age interval appear to be advantaged. The most significant explanations for this are held to be, first, maturational differences, and secondly, selection processes. J. Schorer, J. Baker, D. Büsch, A. Wilhelm, and J. Pabst broaden the state of our knowledge by pursuing three questions in two very interesting studies: a) Can the 'relative age effect' be demonstrated in two samples of handball players being considered for national team selection? b) What role do variables play related to body-size and technical skill development? c) Can these findings be demonstrated also for the differences between those ultimately selected for the national team and those not selected?

Marion Porath, Judy Lupart, Jennifer Katz, Constantine Ngara, and Pamela Richardson take up in their contribution what can well be considered a current hot topic in gifted education research: epistemic beliefs. These are concerned with making meaning of school, understanding one's own intentions with regard to learning, and interpreting one's learning in the context of knowledge traditions. Their significance is so great because most pedagogic measures do not act directly, but first must be filtered through the epistemic beliefs of their addressees. The authors are able to show in this exciting empirical study with pupils in grades 1-12 that their understanding of learning develops from a focus on the activities of school (e.g. reading, math), to interpretation of the meaningfulness of different learning activities, and finally to the meaning of knowledge itself.

The study by Tina M. Newman, William Brown, Lesley Hart, Donna Macomber, Niamh Doyle, Sergey A. Kornilov, Linda Jarvin, Robert J. Sternberg, and Elena L. Grigorenko is concerned with a seldom investigated sample: 'twice exceptional' children. The authors present with the Leonardo Laboratory a short-term program for children with coexisting learning disabilities and spatial gifts. In fact the phenomenon of underachievement, i.e. unexpected low achievement, is today among the greatest challenges to the promotion of talent. Precisely twice exceptional children are today considered by schools to be under-identified and under-served, and therefore to deserve particular attention. Although the program did not improve academic skills, children demonstrated gains in self-efficacy and improvements in organizational skills. Given the recognized difficulties in helping twice exceptional children, these results are definitely encouraging.

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