

Special Section Introduction

Contributions of Psychology to Education

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This special section includes selected articles from two prestigious scientific events held between 2014 and 2015, which analyze the contributions made by psychology to various educational fields. The first event, the XV International Conference on Educational Psychology. Networks for transformation, organized by the Psychology Department at the Universidad de Santiago de Chile and aimed to provide a space for exchange of academic and professional experiences that favor the development of an educational psychology to face challenges of educating in a society in constant transformation. This scientific event placed special emphasis on the role that educational psychology plays in educational improvement, in a context of both interdisciplinary learning and the use of different methodologies corresponding with current requirements. The second event, PEL International Seminar, was organized by Pensamiento Educativo. Journal of Latin American Educational Research published by the Faculty of Education at the Pontificia Universidad Católica de Chile. The third version of the International Seminar on PEL, «Student assessment during their school years' experience and its uses,» featured a discussion on world class scientific evidence of the role of assessment in promoting learning as well as various types of assessments used at different educational stages. Meanwhile, the fourth version of «PEL International Seminar: Contributions of cognitive psychology and neuroscience to the educational field,» features an analysis of recent findings in cognitive psychology and neuroscience, and its potential impact on improving learning in the classroom.

At both scientific events key elements studied in psychology to promote children learning and development at different stages of their school life, from preschool to higher education, were analyzed. What these elements have in common is the consideration of the school context as a promoter of children development in different areas: cognitive, socio-emotional, moral, physical-motor and spiritual. This special section is intended to be a space for discussion regarding the recent findings in psychology that have implications for the educational field in several areas. It also analyzes how psychology as an empirical science, can contribute to the educational research advancement, through interdisciplinary dialogue in line with the demands and complexity of this century.

Specifically, the articles in this special section discuss three areas of psychology that have grown exponentially and are directly linked to children learning and development. First, two articles are presented from the cognitive sciences. Henry Wellman, in his article, «Social cognition and education: Theory of mind,» synthesizes the evidence on one of the theories that is central to understanding children cognitive development: the theory of mind. Wellman not only presents the evidence regarding the role this theory can have in children everyday, but he also critically analyzes the implications of the theory of mind in school success and the dynamic relationships that are formed in the process of teaching and learning, including peer relationships and the student-teacher relationship. In his article, Wellman also analyzes the evidence showing how the theory of mind favors metacognition, understanding instructions and explanations; in other words, how the theory of mind in children is directly related to learning processes. Finally, Wellman proposes challenges that research should take on regarding the theory of mind development, in order to promote learning and classroom development. The second article by Maria Rosario Rueda, Angela Conejero and Sonia Guerra, entitled «Educating attention from neuroscience» also addresses the cognitive sciences. The authors conducted an updated synthesis of the attention studies and its development in children from early years to the school stage, and analyze the genetic and environmental components linked to attention. Taking into account that the development of attention directly affects the learning process, the authors reflect on the importance of accurately knowing cognitive processes and brain mechanisms at the basis of attention. The objective is to develop various educational strategies to optimize not only children cognitive development, but also their socio-emotional adjustment. The article by Rueda and her colleagues ends by discussing the challenges for the areas of psychology and neuroscience. These two articles from cognitive sciences are pioneering in presenting a synthesis of the findings regarding the theory of mind and attention, respectively, and its contributions to education.

The second area included in this special section is diversity and inclusion. It contains two Chilean studies showing the scientific advances in areas of educational inclusion. The article by Ignacio Figueroa, Jorge Soto and Bruna Sciolla, entitled, «Dynamics of reception, appropriation, and contextualization of the approach of the Index for inclusion in municipal schools in a district of the Metropolitan Region,» studies the implementation of inclusive development plan in the school. This study organized a Chilean experience and identifies current problematic conditions for school inclusion in the context of municipal education, a situation that is revealed in light of the challenges present in the public policy in this area. From the findings, and in line with the theoretical background on the subject, the centrality of school cultures are proposed as being the means for achieving inclusive schools. The authors identify favorable and hindering aspects for implementing an inclusive plan as well as five key dimensions for the process of appropriation and contextualization of a school inclusion program. The article by Sebastián Zenteno-Osorio and Francisco Leal-Soto, entitled, «The affections on experience of being a teacher of a student diagnosed with autism spectrum disorder,» aims to explore teacher emotional experiences who have classroom students diagnosed with autism spectrum disorder. The study postulates that the knowledge that teachers have about autism spectrum disorder is directly related to their attitude, motivation and link with the students. The authors show different emotional stages that a teacher should go through and identify sharing affective experiences with students with this disorder as a key aspect. This situation would, in turn, establish a teacher-student relationship, supporting the work between teachers and their students with autism spectrum disorder. Both articles show the importance of a socio-emotional and relational dimension to achieving inclusion, as well as the need to consider the realization of goals that have been identified around education for all.

The third area of the special section focuses on the role of measurement throughout the educational continuum. First, from preschool classrooms, Jennifer LoCasale-Crouch, Ginny Vitiello, Sadie Hasbrouck, Yyannú Cruz Aguayo, Sara Schodt, Bridget Hamre, Marcia Kraft-Sayre, Carolina Melo, Robert Pianta

and Francisca Romo present the article, «Measuring what matters in early childhood classrooms: A focus on teacher-child interactions.» The article gives background on the importance of teacher-child interactions in preschool classrooms in order to ensure high quality learning and development of. The Teaching Through Interactions Framework is presented as an approach to understanding the nature of interactions in the classroom, and to provide evidence that professional development can play a key role in promoting quality interactions. The authors end with some recommendations for delivering early childhood education. The sixth article in this special section, by Saul Geiser, entitled «Measurement and evaluation for higher education admissions: Findings from California,» presents a comprehensive, historical and summarized overview of the various measurements and evaluations that have been proposed at the University of California's admission process in the United States. This point of view allows to identify experiences, tensions and challenges emergin from the use of standardized tests in education. It also analyzes recent experiences that show alternative paths to university admissions. Finally, Geiser clearly shows the future challenges that selective institutions of higher education face.

The articles in this special section bring evidence from some key elements studied in psychology that form a contribution to children learning and development in the school system, from preschool to higher education. The findings and analysis presented by the authors show how the educational field benefits from interdisciplinary work and how scientific evidence from different areas of psychology can guide pedagogical practices, systems of school evaluation, classroom interactions between peers and adults, learning processes, inclusion programs in the classroom, and teacher work performance, among others. As the authors suggest, the challenge in this area is to ensure that scientific evidence can be applied to specific and relevant problems in the educational field, along the lines of the works presented here, which allow us to understand a psychology that works with different agents in education, and overcomes points of view that are focused on deficit or on a purely individual approach.