Learning, Adjustment and Stress Disorders

With Special Reference to Tsunami Affected Regions
INTRODUCTORY NOTE

This series will introduce state of the art research approaches and findings in Educational and Rehabilitative Psychology by members of my research team at the University of Leipzig, Institute of Psychology II. The series “Contributions to Educational and Rehabilitative Psychology” will publish books in English and German languages geared towards a wide range of readers.

The educational psychological topics will integrate current approaches of Differential Learning Psychology, Learning Disabilities (e.g., dyslexia, dyscalculia, anxiety disorders, etc), learning processes, and the relevance of mental models for school learning and for media literacy in different age and professional groups. Specific stress coping programs for teachers and pupils were developed by our team and will be published in this series.

Rehabilitative psychological topics addressed in the book series will include such areas as the development and evaluation of intervention programs for blind children and for deaf adolescents, as well as for children with dyslexia and dyscalculia. Another main focus are the psychological long-term effects of natural disasters (e.g., the Tsunami in Sri Lanka, Indonesia and India, and the earthquakes in Indonesia) as well as the development and the evaluation of treatment methods for affected children, adolescents and adults by such disasters.

There are three primary groups towards which the series is directed: students, professional and educational staff, and self aid groups. The first target group consists of students and academic staff in the psychological, educational, and rehabilitative institutes. The books can be integrated into the teaching and learning material. The series should have practical relevance and will also address psychological, educational, and rehabilitative professionals, such as teachers, teachers for special education, psychotherapists, counselors, physiotherapists, medical staff, and physicians. The third target group includes parents, affected individuals, and self aid groups.

The first book is based on papers from the international, interdisciplinary workshop “Learning, Adjustment and Stress disorders – with special reference to Tsunami affected regions” held in January 2006 in Leipzig. Adopting an international approach, it involves authors from Indonesia, Sri Lanka, Syria, Serbia, Latvia, Spain, and Germany. The future books will be based on international conference papers as well as diploma, dissertation and habilitation theses.

Evelin Witruck
(Editor of the series “Contributions to Educational and Rehabilitative Psychology”)
PREFACE

This present book contains selected contributions from the international workshop "Learning-, adjustment- and stress disorders – with special reference to Tsunami affected regions” organised by the team of Educational- and Rehabilitative Psychology of the Psychological Institute II from the University of Leipzig. The workshop had the character of an international one with about 25 foreign participants from Indonesia, Sri Lanka, USA, Poland, Korea, Spain, Serbia, Latvia and UK. In the same time it was an interdisciplinary one, because scientists from Psychology, Education, Special Education, Sport Sciences, Pharmacy and Medicine attended this event. The conference had offered a platform for integrating basic and applied sciences. It brought together Cognitive, Educational, Clinical Psychologists and Neuropsychological specialists. Seven scientists from Sri Lanka and Indonesia were from December 2005 till February 2006 guests of the University of Leipzig and are organising their DAAD research internship regarding the long term psychological problems in the Tsunami affected regions. This topic was representing the focus of our workshop.

This book as the first volume of the new series “Contributions to Educational and Rehabilitative Psychology” is published in the year 2009, in which the Psychology is celebrating its 130th anniversary. In the year 1879 Wilhelm Wundt founded the world’s first Psychological Institute in Leipzig. During the same time in 2009 our University of Leipzig is celebrating its 600th anniversary. It is a honour of the editors and authors to present this book to both anniversaries.

The book is unique since it contains new results and the state of the art in psychology and neuro-psychology of learning-, adjustment- and stress disorders. The title “Learning, Adjustment and Stress Disorders” expresses the interdisciplinary character of the book. It aims not only at bringing together different fundamentally-oriented approaches, but also at connecting these approaches with applied work. The present book strives towards fostering a scientific exchange that promotes emergence of synergy effects and real progress in the understanding of learning-, adjustment- and stress disorders. The main focus of the workshop was on the following topics:

1. Learning disorders particularly generalised learning handicaps and restricted developmental disorders like Dyslexia and Dyscalculia,
2. Adjustment disorders and Post-traumatic stress disorders, short term and long term consequences of natural disasters like the Tsunami,
3. Basic mechanisms of learning and adjustment disorders like neuropsychological basics, picture and discourse processing, special learning and memory processes,
4. Cross-cultural aspects of learning and adjustment disorders,
5. Assessment methods for learning and adjustment disorders and
6. Prevention, treatment and rehabilitation methods for learning and adjustment disorders.

The book is structured in **five chapters**, in which (except of the first chapter) status analyses are discussed first and afterwards intervention methods and intervention studies are introduced:

**Chapter 1** includes studies regarding basic mechanisms of learning. Kirmse and Schröger from the University of Leipzig (Institute of Psychology I) report about Mismatch Negativity (MMN) as an electrophysiological indicator of auditory long-term learning in speech and non-speech processing. Schepler and Krause from the Humboldt University of Berlin (Department of Psychology) discuss the relations between associative learning with coding conflicts and neuropsychological correlates of learning and memory.

**Chapter 2** involves contributions regarding dyslexia and attention-deficit-disorders and treatment methods. Witruk from the University of Leipzig (Institute of Psychology II) gives an overview about the state of the art of assessment- and treatment methods for dyslexic individuals. Wilcke and Boltze from the Fraunhofer-Institute for Cell Therapy and Immunology in Leipzig discuss the genetic basis of Dyslexia. Sabisch from the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig reports about brain response in lexical-semantic processing in typically developing children and children with developmental language disorders. Raziq and Witruk from the University of Leipzig (Institute of Psychology II) discuss the interaction of reading and writing performance, working memory and anxiety in Moroccan and German children.

Regarding the treatment methods Jiménez and Hernández-Valle from the University of La Laguna (Spain) give an overview about computer-aided assessment of the cognitive processes in learning to read and dyslexia. The chapter ends with the article of Nieber from the University of Leipzig (Institute of Pharmacy) about Attention-Deficit/Hyperactivity disorder, its diagnosis, neurobiology and pharmacological treatment.

The **Chapter 3** is focusing on generalised learning disorders and intervention methods. It involves the article of Kumara from the Gadjah Mada University in
Yogyakarta (Indonesia) studied the self-adaptation for children with learning disorders. Al-Manssour (Dessau), Albert and Al-Ammar from the University of Leipzig (Institute of Psychology II) investigated the impact of parental spoiling on the school readiness and on the reading and writing skills in the elementary school. Al-Ammar from the University of Leipzig (Institute of Psychology II) (now from the University of Damascus, Syria) give an overview about sources and consequences of parental spoiling. Jann-Kluge and Witruk from the University of Leipzig (Institute of Psychology II) introduce the first study in Leipzig about aircraft noise as risk factor for the cognitive development of young school children.

Regarding intervention methods Quast from the Teacher Training and Education Centre Dresden discusses the learning method of “Suggestopedia” and the impact of emotional learning factors. Innenmoser from the University of Leipzig (Institute for Rehabilitative Sports) gives an overview about concepts of disability sport and of rehabilitation sport programs under the point of view of emancipation and integration of people with disabilities by sport. The last article in this chapter from Oliver-Rodriguez from the Jaume I University in Castellon (Spain) involves statistical aspects and focuses on non-parametric analysis of the Interaction between gender and linguistic abilities in blind children.

The Chapter 4 integrates articles about adjustment disorders and methods for treatment and therapy. Svence from the Riga Teacher Training and Education Management Academy in Latvia focuses in her article on Kelly’s repertory grid technique for determining the schoolchild’s feeling of self in school perceptive communication in the relationship between schoolchild and teacher. Karapetyan and Reschke from the University of Leipzig (Institute of Psychology II) discuss the development of identity and psychological health of Armenians living in Germany in the process of adaptation. Balzer and Stueck focus on the consequences of chrono-biological isolation experiments as a preparation for international space travels. Teichert and Witruk discuss the problems of Cancer diagnosis in children and adolescents as a developmental chance or possible reasons for developmental impairments.

Regarding the possibilities of treatment for adjustment disorders Pathirana from the University of Peradeniya in Sri Lanka analysed the significance of preschool teacher training pertaining to peace education and early violence in preschool children as the Sri Lankan profile. Kocijasevic and Lazarevic from the University of Belgrade (Serbia) are giving a review of the “Workshop” used as a method of decreasing social adjustment problems in Kindergarten. Lazarevic and Kocijasevic from the University of Belgrade (Serbia) continue with the article about “Workshop” as a treatment method of social adjustment problems
of children aged 6 in Belgrade Kindergartens. The article of Stueck, Neumann, Mayer, Rillich, Dobrig, Lahm, Supplies and Wallenhauer discusses psychological prevention approaches in activity fields of social work. At the end of this chapter Stueck introduces the water assistant self regulation as preventive and treatment intervention for adjustment disorders in childhood.

**Chapter 5** is focusing on Stress disorders after Natural disasters and other extreme living events as well as related treatment methods. Witruk, Senerath and von Lieres from the University of Leipzig (Institute of Psychology II) give a report about disaster aid activities in Tsunami and earthquake affected regions of Sri Lanka, Indonesia and India during the last years. Dissanayake from the University of Peradeniya in Sri Lanka analysed Post-traumatic stress and coping in children following the natural disaster Tsunami. Kögel and Reschke from the University of Leipzig (Institute of Psychology II) discuss the demands on intercultural competencies for psychological post disaster help. Stueck, Schlegl, V###illegas, Riha, Törpsch and Duben from the University of Leipzig (Institute of Psychology II) focus in their article on the role of body oriented intervention methods for the treatment of post-traumatic stress disorders in children and adolescents. In the contribution of Merten from the Vivantes Hospital in Friedrichshain (Berlin) an important topic from a clinical perspective regarding neuro-psychological and psycho-emotional symptoms of stress disorders is discussed. The last article in this chapter summarised by Stueck system related methods for stress reduction on educational fields.

**Acknowledgement**
The editors are very grateful for the help of the sponsors and supporters of the workshop in January 2006. The DAAD sponsorship for this conference was related to the support for scientists from the Tsunami affected regions of Sri Lanka and Indonesia. Thanks to the Saxonian Ministry of Science and Art (SMWK) for supporting of the colleagues from East Europe, the Centre of Prevention and Rehabilitation (ZPR) and the Institute for Special Education of the University of Leipzig. Thanks for the help by the scientific and student assistants during the workshop 2006 and during the edition work on the book in 2008/9.

Evelin Witruk                    Leipzig, October 2009