Educational Psychology and Students with Special Needs

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Educational Psychology and Students with Special Needs

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Introduction

Educational psychology is a discipline that attends to the factors and processes relevant to and implicated in learning. These factors and processes include motivation, engagement, and achievement—to name a few. It is fair to say that the bulk of educational psychology as a discipline has been focused and based on "mainstream" or "typically" developing learners. Relatively little educational psychology theory, research, measurement, and practice has attended to students with special needs. Because these students experience significant academic difficulties, this limited scholarly attention is a significant gap in educational psychology—and also limits the potential for educational psychology to meaningfully contribute to other disciplinary areas that seek to assist students with special needs.

Addressing these limitations will provide researchers and practitioners with critical domain-specific expertise on the factors and processes relevant to learning for students with special needs. Indeed, addressing this gap is the driving purpose of this Handbook. By synthesizing what has been learned in educational psychology and building on existing work in other educational and psychological disciplines, this Handbook lays a broader base for effective theory, research, measurement, and practice as relevant to students with special needs.

Because educational psychology fundamentally focuses on learning factors and learning processes, it is in a unique position to understand and study students who are at academic risk wholly or partly because of a special need. Answers unearthed here will substantially augment current understanding of at-risk students among educational psychology researchers and practitioners. Importantly also, answers unearthed here can in turn contribute to other important channels of knowledge and practice in developmental psychology, school psychology, and counseling psychology—and also educational (e.g., special education) and medical (e.g., pediatric) disciplines. Thus, we envisage this Handbook can substantially guide the development, implementation, assessment, and refinement of successful multidisciplinary interventions to support and optimize these at-risk students' educational trajectories.

Students at Academic Risk - The Starting Point for this Handbook

In our previous work in this space (Newton, Sperling, & Martin, 2017), we were drawn to conceptual frameworks that shed important light on at-risk children and young people (e.g., Coleman & Hagell, 2007). Harnessing such frameworks, we noted that students with special needs were at particular academic risk on a potentially frequent and ongoing basis and in a diversity of ways. These ideas were developed in a special issue of *Contemporary Educational Psychology* (Martin, Newton, & Sperling, 2017), guest-edited by us, focusing on students with learning disabilities, attention-deficit/hyperactivity disorder (ADHD), and executive function disorders. Focusing on these students, we identified various risk factors and risk behaviors that have significant relevance to these academically at-risk students more broadly, and especially those with special needs.

Risk Factors

Harnessing Coleman and Hagell's (2007) framework, risk factors were identified as factors increasing the probability of maladaptive outcomes, including illness, dysfunction, and disorder. Thus, for example, major conceptual models of ADHD and learning disabilities emphasize impairments to self-regulation and executive function that have adverse educational implications (Loe & Feldman, 2007; Nigg, 2001). Other models relevant to these disabilities emphasize cognitive, neuropsychological, neurological, and biochemical risk (Barkley, 2006; Brown, 2005; Chandler, 2010; Gray & McNaughton, 2003; Sergeant, 2005). Moreover, from a risk perspective, there are factors that interact with or compound existing challenges and their negative effects. For example, anxiety (a prevalent comorbidity for many students with special needs), can compound the academic risk experienced by students with learning disabilities, ADHD, etc. (Bauermeister et al., 2007; Cooray & Bakala, 2005; McGillivray & Baker, 2009). Taken together, a student's academic risk status has significant implications for major and salient educational outcomes that are the cornerstone of educational psychology. We intentionally extended risk factors in this volume to include students with maltreatment histories (Panlilio & Corr this volume), while Hall and

colleagues (this volume), acknowledged the prevalence of risk factors in English Language learners within the United States.

Risk Behaviors

A second major dimension of risk relates to risk behaviors (Coleman & Hagell, 2007). Risk behaviors refer to challenging and potentially harmful behaviors and practices that can disrupt educational and developmental processes. Our special issue in *Contemporary Educational Psychology* also considered risk behaviors as relevant to students with learning disabilities, ADHD, and other executive function disorders. We noted that for each of these groups, there were maladaptive behaviors across a wide range of educational outcomes that threatened to disrupt their educational development (e.g., see Barkley, Murphy, & Kwasnik, 1996; DuPaul & Stoner, 2003; Martin, 2012). Among these students, for example, there are elevated levels of off-task behavior, problematic self-regulation, and poor task completion (Vile Junod, DuPaul, Jitendra, Volpe, & Cleary, 2006). The educational consequences of these risk behaviors included poor achievement, school exclusion, schoolwork non-completion, school refusal, and grade repetition, (DuPaul & Stoner, 2003; Martin, 2014b; Pliszka, 2009; Purdie, Hattie, & Carroll, 2002). Again, then, a student's academic risk status has significant implications for major educational factors that are fundamental constructs and processes in educational psychology.

This Handbook was inspired by the recent special issue in *Contemporary Educational Psychology* (Martin et al., 2017). That special issue was focused on learning disabilities, ADHD, and executive function disorders, but we were mindful there remained an enormous range and diversity of conditions, disabilities, and disorders that can place a student at academic risk. We were also mindful of the many psycho-educational theories, processes, and factors that were not represented in its collection of empirical papers. Therefore, comprising a comprehensive range of psycho-educational perspectives, this Handbook represents a major advancement in progressing current understanding of students with special needs.

Special Needs in Educational Psychology - A Quiet Space Requiring More Voices

Educational Psychology and Students with Special Needs

As noted earlier, theory, research, measurement, and practice in educational psychology has been relatively quiet when it comes to students with special needs. The educational psychology research that has been conducted has tended to be sporadic and diffuse, at best. More voices in this area—and more consistently sounded—are needed in educational psychology. In fact, when considering the psychological and cognate disciplines that have attended to students with special needs, it seems as though school psychology, clinical psychology, and special education outlets have been more active than educational psychology. For instance, in a search of empirical studies in PsycINFO by Martin (2012), some 100 published articles were identified under one or both of the keywords 'attention deficit with hyperactivity disorder' or 'ADHD' between 1990-2010 in three major journals of school psychology (*Psychology in the Schools, Journal of School Psychology, School Psychology Quarterly*). In an update of this search, from 2011 to the time of writing (March 2019), there were 38 articles published in these school psychology outlets. In contrast, between the years 1990 and 2010, 7 articles derived from the same search parameters were published in three major journals of educational psychology (*Contemporary Educational Psychology, Journal of Educational Psychology, British Journal of Educational Psychology*). In an update of this search, from 2011 to the time of writing (March 2019), there were 19 articles published in these educational psychology outlets. This represented an improvement on 1990-2010 activity, but it hardly constitutes a major line of work in educational psychology—and 5 of the 19 articles were in our own special issue in *Contemporary Educational Psychology*. Although some special needs have received more attention in major educational psychology outlets, a similar pattern is present. For example, Newton et al. (2017) reported that in *Contemporary Educational Psychology* 7 peer-reviewed articles since 1990 were identified when searching PsycINFO with 'learning disabilities' as a keyword, and 38 peer-reviewed articles in the flagship outlet *Journal of Educational Psychology* were published during this time.

We hope this Handbook inspires a great deal more scholarly activity in the educational psychology space than has been evident to date. We see this Handbook as enabling opportunities for

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new conversations about students with special needs. We maintain that psycho-educational

perspectives and voices will greatly strengthen current understanding of students with special needs.

As highlighted in this Handbook, there are tremendous and as-yet untapped opportunities and

"green fields" of research among these students.

Educational Psychology Informing Our Knowledge of Students with Special Needs

This Handbook is obviously concerned with how educational psychology can contribute to a

better understanding of students with special needs—particularly as relevant to the factors and

processes implicated in their learning. Thus, across the Handbook, many theories of educational

psychology are unpacked with particular interest in how they can explain and inform the academic

development of students with special needs. Major theories, such as expectancy-value theory

(Wigfield & Ponnock, this volume), self-worth theory (Martin, this volume), achievement goal

theory (Bergin & Prewett, this volume), self-determination theory (Wehmeyer & Shogren, this

volume; Strnadova, this volume), social cognitive theory (Cassady & Thomas, this volume; Schunk

& DiBenedetto, this volume), control-value theory (Pekrun & Loderer, this volume), self-regulation

(Perry, Mazabel, & Yee, this volume), and cognitive load theory (Tricot, Vandenbroucke, &

Sweller, this volume) are addressed in significant detail.

In each case, authors have identified how major tenets under a respective theory align with the

learning processes and principles for students with special needs, as they do for students without

special needs. Thus, an important point made is that there is substantial congruence in the

theoretical implications and applications of educational psychology for students with and without

special needs. Importantly, however, as described below, many authors also identify some boundary

conditions to major theory—and in such cases, students with special needs play a major role in

informing our knowledge of educational psychology.

When reading the chapters in this Handbook, it became clear that major theories of

educational psychology map onto distinct areas and aspects of special needs in ways that it is

difficult for other disciplinary theories to do. For example, with its clear and present focus on

working and long-term memory, cognitive load theory is uniquely placed to shed significant light on how to improve reading for students with dyslexia (Tricot et al., this volume) or with mathematics difficulties (Jordan, Barbieri, Dyson, & Devlin, this volume). Similarly, engagement theories can help us understand and create interventions for students with attention difficulties or behavioral problems (O'Donnell & Reschly, this volume), and findings related to academic self-concept have implications for supporting students with mild disabilities in inclusive classrooms (Tracey, Merom, Morin, & Maïano, this volume). For students with ADHD and who experience significant academic failure, self-worth theory speaks specifically to some of the maladaptive strategies they may engage to protect their self-worth in the event of such failure (Martin, this volume). And, balancing the need for guidance and autonomy, self-determination theory has much to say about autonomy supportive structures and how to operationalize them for students with special needs (Wehmeyer & Shogren, this volume; Strnadova, this volume). In all such cases, major educational psychology perspectives uniquely target specific areas and aspects of special need—in ways that are distinct from what other disciplinary perspectives can offer.

Students with Special Needs Informing Our Knowledge of Educational Psychology

As the Handbook developed, it was equally clear that by focusing on students with special needs, there was much for educational psychology to learn. For example, by closely considering psycho-educational theories, some authors identified potential boundary conditions of these theories—or identified special considerations that researchers need to accommodate when conducting their investigations among special needs populations. As a case in point, the chapter on self-worth theory and ADHD (Martin, this volume) recognized that an important assumption of self-worth theory is that students are sufficiently aware and reflective to know that they are at-risk academically, as it is this awareness that leads to self-worth threat and then self-worth protection. Thus, self-worth theory research conducted among students with special needs must in some way account for any potential confounding between aspects of the special need and fundamental tenets of the theory being applied.

Importantly, however, understanding boundary conditions can also inform the generality or generalizability of psycho-educational theories, factors, and processes. As was observed above, there is substantial alignment between students with special needs and students without special needs in how psycho-educational theories, factors, and processes function. In a discipline that is dedicated to gaining reach across all students, generality and generalizability are critical elements. A test of this is how key educational psychology ideas and principles can explain learning among students with special needs. Indeed, because the bulk of psycho-educational ideas and principles have been developed on the basis of research among students without special needs, exploring generality among special needs populations is a very strong test of applicability. We think it is reasonable to assert that this Handbook is a testament to the generality and applicability of educational psychology to students with special needs. To the extent this is the case, we further assert that educational psychology would be greatly assisted by a continued focus on these students.

The special needs space also presents unique challenges to educational psychology. The reality is that many at risk students experience more than one disability, disorder, etc. (e.g., Cooray & Bakala, 2005; McGillivray & Baker, 2009). For example, it is not uncommon for anxious students to also experience depression (e.g., Wigfield & Ponnock, this volume), for students with ADHD to also experience depression (Ostrander, Crystal, & August, 2006), or for students with autism spectrum disorder to also experience anxiety (Gillies, this volume). Similarly, Sigafoos and others (this volume) shared the increased risks for anxiety, phobia, and obsessive-compulsive disorders for those with developmental disabilities. Further, underlying conditions such as executive function deficits may result in co-occurring disabilities (e.g., Follmer & Sperling, this volume). Dockrell and Lindsay (this volume) also noted the co-occurrence of language impairments with a number of other developmental difficulties. This brings into consideration the need for multiple psycho-educational perspectives to effectively traverse the multiple challenges that students with special needs experience. Notably, a major strength of educational psychology is the wide range of theories, factors, and processes underpinning it that can be flexibly applied to a range of learner and

learning conditions. As is evident across this Handbook, there is remarkable applicability of educational psychology across a vast range of learner and learning conditions.

In other ways students with special needs challenge educational psychology and stimulate further thinking about how students learn. For example, the reasoning skills of students with learning disabilities in mathematics may provide insight about important cognitive processes (Morsanyi, this volume). Additionally, there is the relatively neglected issue of "twice exceptionality". For example, some children are identified as gifted and are diagnosed with ADHD (Lee & Olenchak, 2015). Although care is required when diagnosing dual conditions such as this (see Mullet & Rinn, 2015), when explaining and supporting these students' learning, educational psychology will need to meaningfully traverse two conditions that in some respects may reside at opposite ends of a learning continuum. This is a challenging undertaking, but will ultimately enrich educational psychology in striving to do so.

"Satellite" Theories in Educational Psychology

In considering the range and applicability of salient and seminal educational psychology perspectives, it is also evident there are numerous "satellite" theories that are highly effective in explaining and supporting the learning of students with special needs. We refer to these theories as "satellite" theories because they tend not to be typically considered as educational psychology theories—however, they are often invoked or harnessed in psycho-educational research. Thus, they may be major theories in other disciplinary channels, but are not central to educational psychology. One example is Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1992). We suggest this theory is not a psycho-educational theory per se, but is highly pertinent to the educational psychology discipline and is often harnessed in psycho-educational research.

An important revelation in this Handbook is that when dealing with the learning of students with special needs, some of these satellite theories become very central and powerful. Again, taking ecological systems theory as a case in point, the nature of special needs and the multi-tiered dimensions of need and support implicated in special needs render this theory as almost

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indispensable to explanations of learning (Bronfenbrenner, 1988). Particularly for students with special needs, all layers of their ecology are critical for optimizing their learning outcomes (Dockrell & Lindsay, this volume; Macfarlane, Macfarlane, & Mataiti, this volume).

Another example is "theory of mind' (Premack & Woodruff, 1978). Typically this would not likely receive a great deal of attention in educational psychology channels. However, when dealing with learning among some groups of special needs it becomes more salient. For example, students with autism spectrum disorder can have difficulties engaging in reciprocal interactions, understanding others' perspectives, and recognizing others' emotional states—all factors critical for optimal functioning in a classroom. Theory of mind helps to explain the difficulties these students have in understanding others' thoughts, intentions, and feelings, and can guide social skills training to assist interpersonal relationships in the classroom (Gillies, this volume; Hue, this volume; see also Baron-Cohen, Leslie, & Frith, 1985).

Some chapters rely on established theoretical models coupled with satellite theories specific to content area or specific learners. For example, Hall et al. (this volume) leveraged cognitive processing models but also required the use of interactive models of reading comprehension as an explanatory tool to best understand the challenges faced by English Language Learners with special needs. The Reading Systems Framework, well known to educational psychologists, served in this role. Other scholars share models developed in their work that extend existing models for specific learners. Cassady and Thomas (this volume), for example, share an Emotional Information-Processing model as an explanatory tool for how learners with affective disorders may process internal and external cues. Panlilio and Corr (this volume) explicate a conceptual framework that extends self-regulation theories to demonstrate influences of maltreatment and trauma on students' academic competence.

Taken together, this Handbook challenges educational psychology theory, research, and practice to cast wider theoretical, empirical, and applied nets when considering learning among students with special needs. Theories that are considered "satellite" in the ordinary course of

educational psychology among "mainstream' students, may deserve more central positioning in future work among students with special needs.

Intersections of Diverse Expertise

There is a vast amount of expertise represented in the Handbook. As we invited authors and received chapters it became evident that this expertise was demarcated in a variety of ways.

Disciplinary Homes

One major demarcation was in the authors' disciplinary homes. For example, some authors are well-established in educational psychology, some are well-established in special education, some are well-established in cognate disciplines such as developmental psychology, and others are well-established in sociological and socio-cultural areas. The psychologically-oriented authors were selected for their reach into one or more special needs area. The special educators were identified on the basis of their connections to educational psychology. Indeed, this Handbook is about the vital and under-investigated nexus between psychology on the one hand, and special needs on the other hand. It is this nexus that we challenged the authors to unpack and articulate.

As Editors and as authors of our own chapters in this volume, we found that writing about educational psychology was something we were pretty comfortable with. We also found that writing about special needs was also reasonably doable. The tricky part was bringing the two together to explain and support the learning of students with special needs. As we challenged ourselves and authors to expand in this space, we came to understand why so little work had been done to date. It is not easy work. It takes considerable scholarly competence to interpret and extrapolate to meaningfully contribute into this space. Dare we say, it also requires compassion and a belief in these students' capacity to strive to their academic potential. Dare we also say, the authors in this Handbook delivered on all counts.

Theorists, Researchers, and Practitioners

Regardless of disciplinary home, another demarcation is evident in the various "hats" that authors wore in a given chapter. In each chapter we sought solid and equal attention to theory,

research, and practice. Perhaps not unexpectedly, authors with long research experience were sometimes challenged by the Editors and reviewers to amplify implications for practice. Likewise, those with a strong track record of education and practice were sometimes challenged to amplify theoretical foregrounding and to make the evidence base clearer.

It was also evident that it was relatively easier to draw on research in some areas and aspects of special needs than in other areas. In part this reflects the different research traditions that have unfolded over the years and recognition (or identification) of new conditions and challenges in the special needs or disability field. For example, there is not a lot of research to date into English language learners with special needs. In contrast, there has been much more research into anxiety. In part it may also reflect the fact that a particular special need is not categorized in formal classification schemes (e.g., DSM-5, American Psychiatric Association, 2013; ICD-10, World Health Organization, 2016) and thus not attracting as much attention in the research community. In part it may also reflect the reality that empirical data (particularly quantitative data) are difficult to collect among some samples with special needs. For example, "classic" survey methodology and academic testing that are mainstays in educational psychology are not always appropriate for many students with special needs. In turn, a dearth of data leads to fewer empirical outputs on which to draw on in the special needs area.

In similar vein, we believe it is important to be grounded in theoretical approaches to students with special needs. Because these students can present obvious and concrete challenges in the classroom, there can be a tendency for very applied research to be conducted among them. This is understandable—practitioners want to immediately help these students, and applied research makes a major contribution here. But in this Handbook we wanted to showcase the important role theory can play in explaining and supporting learning for these students. We believe this is important for a few reasons. First, the nature of many special needs is such that they manifest in many different ways, depending on the student, their context, etc. It is difficult to investigate all possible manifestations of special needs and even if we were to do so, it would be difficult for practitioners

to be across all this research. However, when a practitioner has a good grounding in theory, this offers guiding principles that can direct intervention responses for many students in many contexts. Second, as noted above, there is a lack of educational psychology research in areas and aspects of special need or disability; theory can offer guidance for practice in the absence of specific research. Third, notwithstanding the diversity of special needs, there is yield in implementing efficient interventions. For example, practitioners may be able to identify apparently different behaviors in terms of some common underlying dynamics. Theory is very helpful here. Taking self-determination theory as a case in point, it may be that implementing autonomy-supportive practices can actually address numerous aspects or manifestations of a special need or disability.

In this Handbook, authors were also challenged to expand beyond "universal" intervention ideas that could apply to all children. Specifically, they were challenged to clearly articulate how their selected psycho-educational theory (or perspective/factor) would be operationalized in the academic lives of students with a particular special need. This too is not an easy task. It requires a careful and credible identification of key psycho-educational processes/mechanisms to be then applied to specific aspects of a particular special need. In so doing, we can optimize practice outcomes by providing guidance on well directed psycho-educational strategy that targets specific features of a specific special need.

Operationalizing Special Needs for the Handbook

For the purposes of the Handbook, authors were asked to consider (at least as a starting point) special needs, disability, and at-risk status in terms of overarching Categories and specific Topics. Predominantly, these were drawn from the Diagnostic and Statistical Manual of Mental Disorders, Version 5 (DSM-5; American Psychiatric Association, 2013) and the International Classification of Diseases - 10, 2016 Version (ICD-10; WHO, 2016). In total, there were 5 Categories and numerous Topics nested within each Category. Authors were invited to select which one/s they felt their psycho-educational expertise could best inform. As the Handbook demonstrates, there was some flexibility here. For example, some authors focused on one Category and selected one or more

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Topic within that Category. Others opted to focus on more than one Category and a specific Topic within each Category.

The Categories and Topics presented to authors were as follows:

- Category 1: Neurodevelopmental Needs (example Topics: intellectual disability, dyslexia, ADHD, etc.)

- Category 2: Physical Needs (example Topics: sensory impairment, physical impairment, etc.)

- Category 3: Emotional Needs (example Topics: anxiety, depression, etc.)

- Category 4: Social and Communication Needs (example Topics: autism spectrum disorder, language disorder, etc.)

- Category 5: Behavioral Needs (example Topics: oppositional defiance disorder, conduct disorder, etc.)

Importantly, the Categories and Topics were not presented as prescriptive, definitive, or exhaustive. Other areas of at-risk status were identified by authors and they elected to focus on these. Also, the Topics listed within each Category were deliberately incomplete to allow important Topics to be proposed as a function of authors' own expertise. Nevertheless, we did explicitly refer authors to the DSM-5 and the ICD-10 as starting points to ensure that these were part of their decision making.

Handbook Structure: A 360^0 approach

We aimed for something of a 360^0 approach to educational psychology and students with special needs. In so doing, three major Handbook sections were developed.

Section 1 was dedicated to "Special Needs and Educational Psychology". In this section, authors were asked to focus on a particular special needs area and explore diverse ways that educational psychology has or can progress knowledge, research, and practice in this area. Thus, the

lens for Section 1 was a specific special needs area, with contributions from educational psychology identified. Thus, for example, Swanson selected specific learning disability as the special needs area and examined this from a working memory perspective. In another chapter, Strnadova selected intellectual disability and examined this from a self-determination perspective. In all chapters in this section, one or more special need or disability was the focus and then investigated through the lens of one or more educational psychology theory or perspective. The aim here was to highlight how students in each chapter's designated special needs area can be assisted by psycho-educational researchers and practitioners harnessing these psycho-educational theories and perspectives.

Section 2 attended to "Perspectives from Major Educational Psychology Theories". Authors in this section were asked to focus on major theories in educational psychology and explore diverse ways that they have or can contribute to knowledge, research, and practice with regards to students with special needs. Thus, the lens for Section 2 was a major educational psychology theory, and what it offers the special needs field. Thus, for example, Schunk and DiBenedetto selected social cognitive theory as the educational psychology lens to examine students with learning disabilities, reading disabilities, and ADHD. In another chapter, Wigfield and Ponnock selected expectancy value theory as the psycho-educational focus and used this as the lens to explore the educational development of students with depression and anxiety. In all chapters in this section, one major educational psychology theory was the focus and then harnessed as the lens to better understand an area of special need or at-risk condition. The aim here was to highlight how psycho-educational theory is applicable and helpful for educating children in diverse special needs areas.

Section 3 focused on "Special Needs and Constructs Relevant to Psycho-Educational Development". Here authors were asked to focus on constructs and/or processes that are relevant to psycho-educational development and to harness these constructs/processes to explore diverse ways that they have or can contribute to knowledge, research, and practice among students with special needs. Thus, the lens for Section 3 is a specific construct or process in educational psychology and what it offers the special needs field. Whereas Section 2 addressed major educational psychology

theories, Section 3 addressed specific constructs, processes or emerging ideas that have significant implications for students with special needs. These included themes such as interpersonal relationships, neuroscience, and technology—and also domain-specific processes such as writing and mathematics. Thus, for example, Graham and Harris selected writing as a domain-specific activity and considered this among students with learning disabilities. In another chapter, Byrnes and Eaton focused on neuroscience and considered this in terms of students with special needs such as those with autism spectrum disorder, conduct disorder, or ADHD. Okolo and Ferretti explore ways the technology can support cognitive and motivational needs of students with difficulties in reading. The aim here was to highlight how some specific and salient psycho-educational constructs/processes are applicable and helpful for educating children in diverse special needs areas.

In each chapter we asked authors to address four elements as they connected educational psychology to their theories or areas of special need. These were: theory, research, implications for practitioners, and future directions for research, theory, and practice. We were also keen for authors' own expert voices to come through in this Handbook. Thus, although we asked them to adhere to the four key elements (theory, research, etc.), we also welcomed inclusion of some summary or illustrative data they might have, as well as novel or cutting-edge models, concepts, methodologies, and directions based on their own expertise and experience in this field.

The reader will also notice that we engage more specifically with the chapters at the outset of each section. That is, we have not conducted the more traditional summary of chapters that often appears in opening chapters of Handbooks such as this. Each Editor was responsible for each section. Although the development of each section conformed to the overarching vision and mission of the Handbook, each Editor had a vision for their respective section. Indeed, each section evolved over the course of chapter revisions and interactions between the relevant section Editor and authors. Essentially, the development of each section has its own story—in addition to the stories told by the authors themselves. We wanted each Editor to tell this story and so a more detailed

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summary of chapters (and their journeys) is presented at the appropriate points later in the

Handbook.

Our Audience

Predominantly, there are three audiences we have sought to inform: researchers, graduate

students, and practicing professionals.

Researchers

With regard to researchers, there is continued interest in comprehensive volumes that

represent an integration of major fields in psychology and education—particularly when this

integration occupies unique space not previously addressed—as this volume does. We also believe

the Handbook should be of significant interest to researchers in aligned psychological disciplines

such as developmental psychology, school psychology, and counseling psychology. Moreover, as

the chapters in the Handbook unfolded it became evident that they offered insights to researchers in

cognate medical and other fields such as pediatrics and adolescent health.

Again, as noted above, there is very little educational psychology research attending to

students with special needs. Because these students experience significant academic difficulties, this

limited scholarly activity represents a significant gap in educational psychology. Addressing this

gap provides educational and psychological researchers with critical domain-specific expertise on

the factors and processes relevant to learning for students with special needs. This integration thus

represents unique empirical space.

Students

In regard to students, the Handbook is clearly relevant to many graduate students in

educational psychology and (special) education disciplines. We also envisage that the Handbook

would be significant specialist support reading (e.g., to an undergraduate textbook) in

undergraduate courses in educational psychology and special education. Most graduate Education

degrees in the USA, UK, Europe, and the Asia-Pacific offer courses in the two subjects under focus

in the Handbook: "Educational Psychology" (or, "Psychology of Teaching and Learning";

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"Learning Theory and Practice in the Classroom" etc.) and "Special Education" (or, "Teaching Exceptional Children", "Students with Special Needs", "Teaching in the Inclusive Classroom" etc.). Similarly, many Psychology graduate degrees offer courses in "Educational Psychology" (or, "Psychology of Teaching and Learning"; "Psychology of Education and Teaching"; "Learning Theory and Practice in the Classroom" etc.). In regard to undergraduates, most teacher education (Education) degrees and some Psychology degrees mandate study in the areas of "Educational Psychology" (or, "Psychology of Teaching and Learning"; "Learning Theory and Practice in the Classroom" etc.) and "Special Education" (or, "Teaching Exceptional Children", "Students with Special Needs", "Teaching in the Inclusive Classroom" etc.). We believe this Handbook offers important perspectives to better inform graduate (and undergraduate) students in these courses and subjects.

Practicing Professionals

Authors of each chapter were asked to include significant material on implications for psycho-educational practice. Thus, although the volume has a strong research foundation, there is also credible and evidence-based practice directions identified in every chapter. Given this, the Handbook has direct relevance to professionals, especially in the fields of educational psychology and special education. As we lamented earlier, it seems there have been more contributions to special needs and disability practice from school, developmental, and counselling psychology. No question, these contributions are vital—but we suggest that educational psychology illuminates critical learning factors and learning processes that underpin at-risk students' educational development. Educational psychology thus represents a major foundation for practitioners to optimize these students' educational development.

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Conclusion

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When considering students with special needs, prevalence rates for any given special need are not often high. However, we believe this is a misleading and problematic take on special needs that lacks ecological validity. We say this because in any given class and school there are many students

with special needs or at risk of disability. The ecological reality is that they represent a critical mass of students. If we were to conduct an audit of special needs prevalence rates reported in this Handbook's chapters, it is immediately evident there are large numbers of students with special needs in absolute terms. We believe that when a critical mass of students in a group is assisted, the group as a whole is assisted. To the extent this is the case, when students with special needs are assisted in their learning, their classrooms and schools are academically enriched as well. Because educational psychology is a discipline that attends to the factors and processes implicated in learning, it has much to contribute to these students and the classrooms and schools to which they belong.

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