

Advancing Inclusive and Special Education  
in the Asia-Pacific

Fuk-chuen Ho  
Cici Sze-ching Lam  
Michael Arthur-Kelly *Editors*

# Promoting Collaborative Learning Cultures to Help Teachers Support Students with Autism Spectrum Disorder



Centre for Advancement in Inclusive and Special Education  
Faculty of Education, The University of Hong Kong



Springer

# **Advancing Inclusive and Special Education in the Asia-Pacific**

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Policies and practices of inclusion in education were adopted in the Asia-Pacific region somewhat later than in the West; and they are still evolving as schools, colleges and universities are coming to grips with the challenge of addressing increasing diversity among students. There is a growing awareness in the region that there is a need for improved channels of communication for academics and researchers to share more effectively their findings in order to influence developments in the field of inclusive and special education.

Many institutions in the region have academic groups working and researching in this field, often in semi-isolation. For example, the following institutions are all separately involved: University of Hong Kong, the Chinese University of Hong Kong, The Education University of Hong Kong, University of Queensland, University of Monash, University of Canterbury, Beijing Normal University, National Taiwan Normal University, University of Macau, Nanyang Technological University, and the Korean University, and as well as other universities. The academics concerned are eager for an outlet for their publications, and for ongoing communication with other professions in different countries and cities. Equally important, teachers, students on graduate courses, special education practitioners, counsellors, school psychologists, and school principals are eager to obtain information and guidance on meeting student's diverse educational and personal needs. Inclusive education has been described as '... a multifaceted practice that deals with value and belief systems, invites and celebrates diversity and difference arising from family background, social class, gender, language, socio-economic background, cultural origin or ability, with human rights and social justice at its core' (Agbenyega & Deku, 2011, p.1). Inclusion is thus a core part of the notion of 'education for all' agenda; and it is far more than the placement of students with special educational needs in regular classrooms (UNESCO, 2003). That is also the view that will be presented consistently within these books.

Book proposals for this series may be submitted to the Publishing Editor: Melody Zhang E-mail: [melodymiao.zhang@springer.com](mailto:melodymiao.zhang@springer.com)

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Editors

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*Editors*

Fuk-chuen Ho  
The Education University of Hong Kong  
Hong Kong, China

Cici Sze-ching Lam  
The Education University of Hong Kong  
Hong Kong, China

Michael Arthur- Kelly  
School of Education  
University of Newcastle Australia  
Eleebana, NSW, Australia

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# Foreword

There is worldwide interest in the education of learners with autism spectrum disorder (ASD). In the past two decades, the visibility of ASD has dramatically increased and, with it, a greater focus on interventions and treatments to enable people with ASD to live fuller, richer lives in their communities. Fifteen years ago, one of my doctoral students conducted a thorough review of the literature pertaining to research-based practices in educating learners with ASD. The results were, frankly, alarming, in that although there were a number of practices that had been adopted, few had much evidence of their impact or efficacy. The text in your hands is evidence of the progress that has been made in developing, describing, and determining research- and evidence-based practices in the education of learners with ASD. These advances have included not only practices to improve social emotional skills, academic skills, and communication skills, but also the recognition that such efforts need to be initiated in a schoolwide manner, in collaboration with families, general educators and related service personnel, incorporating technology and other supports.

Indeed, these features are elements of high-quality practice not only in the education of learners with ASD, but with regard to all students who need to acquire twenty-first century skills to succeed in a rapidly changing and increasingly global context. Collaboration, creativity, critical thinking, and communication are the ‘4 Cs’ that are often discussed as skills needed for the future (Wehmeyer, 2019), and these are as important for students with ASD (and perhaps more important) as they are for other students. And yet, too many educators (as well as the public) often presume that children and youth with ASD cannot achieve the skills that enable them to function successfully in what is perceived to be an increasingly complex world, despite evidence to the contrary. While it is important to be knowledgeable about and plan educational programmes to address areas in which students with ASD need targeted instruction and support, it is essential that this does not result in a focus only or primarily on what students cannot do and, instead, results in efforts to address the unique learning needs of children and youth with ASD so that they can, indeed, learn to function successfully in society.

*Promoting Collaborative Learning Cultures to Help Teachers Support Students with Autism Spectrum Disorder* pulls together an impressive cast of researchers and experts in the education of learners with ASD covering topics that embrace the ‘4 Cs’, schoolwide applications, technological supports, and transdisciplinary collaboration. The text is timely, not only for educators and researchers in the Asia Pacific region, but indeed throughout the globe. The chapters draw from research-based and state-of-the-science knowledge about the needs of learners with ASD to provide direction for teachers to enable and empower students to achieve success in school and life. The focus is positive, from addressing behavioural issues to exploring innovative practices such as service learning and video modelling. Not only is this a groundbreaking text for teacher professional development to support learners with ASD in the Asia Pacific, it is a roadmap for twenty-first century education for learners with ASD.

Department of Special Education, Beach  
Center on Disability, University of  
Kansas, Lawrence, KS, USA

Michael L. Wehmeyer

## Reference

Wehmeyer, M. L. (2019). *Strengths-based approaches to educating all learners with disabilities: Beyond special education*. Teachers College Press.

# Preface

This book consists of 16 chapters, focusing on three areas of concern. The first area includes Chapters 1 to 5, reviewing the current situation in the education of children with ASD and the provision of professional learning for teachers in Asia Pacific regions; the second area comprises Chapters 6 to 11, introducing different approaches to designing training programmes for children with ASD; and the third area contains Chapters 12 to 16, focusing on reviewing the modes of professional learning for teachers of children with ASD.

Chapter 1 reviews the current services for students with autism spectrum disorder (ASD) and the professional development programmes available for teachers in Hong Kong. Important components for an ideal professional development programme for teachers are discussed. These components can be acquired when teachers are provided with an opportunity to share their knowledge and skills in a learning community. Chapter 2 introduces the current situation with respect to the education of children with ASD in mainland China. Difficulties in the development of special education in mainland China were discussed. A major setback is the shortage of qualified professionals to work with students who have ASD. Chapter 3 mainly presents six professional development programmes for teachers of students with ASD in Taiwan. The education of teachers of students with ASD centres on the collaboration between teachers and professionals in course delivery. Chapter 4 highlights the approaches in the implementation of the professional development programmes for students with ASD in Singapore. In particular, the practice models are emphasized. Teachers should be provided with the opportunity to share knowledge and skills with peers in the same school as well as those in other schools. Chapter 5 introduces different kinds of support for students with ASD. Teachers should be equipped with the knowledge of cognitive as well as social and communicative features of students with ASD. One of the major concerns for teachers of students with ASD is the identification of the specific needs of students. The research team developed a computer-based checklist to identify the features of individual students with ASD in the areas of self-control and regulation, effective



communication, intentional anticipation, readiness of unexpected changes, and behavioural and emotional management in the classroom context.

Chapter 6 introduces a checklist, which provides teachers with information on how to select learning content and activities to match the specific characteristics of individual students. In addition to the introduction of a tool to identify the needs of the students, the chapter also discusses a collaboration framework between schools and universities. Chapter 7 describes the use of a joint school–university mode to conduct a school-based social skills training programme for students with ASD. This mode is a demonstration of how to transfer the knowledge into good practices for the education of students with ASD. Chapter 8 shows another example of school–university collaboration. Teachers in a local resource secondary school worked with university lecturers in using the whole-school approach to plan the training programme for students with ASD. In this training programme, collaboration among teachers, social workers, educational psychologists, and parents was required. Chapter 9 introduces a training programme for students with ASD by using university undergraduates as the teacher assistants in the programme delivery. This chapter shows how teachers can work collaboratively with teacher assistants to enhance the effectiveness of the implementation. Chapter 10 suggests the use of a corpus design to study the needs of students with ASD. A corpus is a collection of texts that can be digitally utilized through computers for linguistic purposes. Chapter 11 informs the reader about a computer programme for students with ASD to learn about emotion recognition and social behaviours. A unique aspect of this programme is that parents are required to work with their children during the learning process.

Chapter 12 recommends the use of video for case studies. Videos of the performances of students with ASD in real classrooms were collected. The videos were used as a tool for case analysis in the professional development programme. The advantage of using the videos was that the teachers were provided with the opportunity to learn from a wide variety of observed skills in engaging students with ASD. Chapter 13 presents a psychologist–teacher consultation and collaboration model on how to optimize the support for students with ASD in developing self-determination. In particular, the model emphasizes the important collaboration between the two disciplinary teams in the setting of regular classrooms. Chapter 14 explores the implementation of problem-based learning (PBL) in the practicum of a professional development programme for in-service teachers. This chapter shows how teachers formed communities of practice to work collaboratively for the enhancement of their knowledge and skills in teaching students with ASD. Chapter 15 echoes the tenet of the previous chapter in that building a collaborative learning community is important for teachers to share their skills and knowledge. The difficulties that teachers currently encounter are the short duration of training, insufficient skills and knowledge in interacting with students who have ASD, and limited training for special educational needs (SEN) coordinators. This chapter suggests a mode of professional development as a solution for these difficulties. This chapter discusses an approach to providing teachers with a platform to share their experiences in teaching students with SEN including individuals with ASD. Teachers can make direct observations of their peer teachers' lessons in a real teaching environment. A post-conference

meeting after the lesson observation provides teachers with an opportunity for the stimulation of new ideas. Finally, Chapter 16 emphasizes the importance of the delivery of teacher professional learning in the context of implementation science, drawing attention to several related themes. First, a systematic approach to changing teaching and learning practices to support inclusion outcomes for students has strong implications for modern diverse schools. Data-based studies are urgently required to better understand how teachers can change, maintain, and continually improve differentiated practices within a universal design framework for all learners. Second, an improved system of regulatory control is necessary to ensure that teachers receive learning experiences that are both pedagogically sound and evidence-based. Third, large-scale international research attention to the question of how effective and heavily utilized pedagogies and learning supports such as mentoring, instructional coaching, and lesson study are delivered in a range of cultural contexts. Fourth, paraprofessionals and other related personnel in educational settings are playing a larger strategic and practical role in the pursuit of inclusive practices, and this phenomenon needs to be recognized in modern inclusive school contexts.

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Fuk-chuen Ho  
Cici Sze-ching Lam  
Michael Arthur-Kelly

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# Editors and Contributors

## About the Editors

**Fuk-chuen Ho PhD**, is adjunct assistant professor in the Department of Special Education and Counselling at the Education University of Hong Kong and former associate professor (fractional) in the School of Arts and Humanities at Tung Wah College. He has been the programme coordinator of courses for teachers of students with special educational needs for more than 20 years. He has been teaching in the areas of special/inclusive education in the university for over 20 years and has extensive experiences in managing teacher education programmes. His scholarly work has largely contributed to students with dyslexia and autism spectrum disorder and to their teachers. His research has been published in quality academic journals, including *Journal of Autism and Developmental Disorders*, *Teacher and Teaching Education*, *Reading and Writing: An Interdisciplinary Journal*, *Educational Psychology*, *British Journal of Special Education*, and *Journal of Learning Disabilities*.

**Cici Sze-ching Lam EdD**, is a registered educational psychologist in Hong Kong. She is an honorary research associate at the Centre for Advancement in Inclusive and Special Education at the University of Hong Kong and Senior Lecturer of the Department of Special Education and Counselling at the Education University of Hong Kong. Her expertise focuses on diagnosing and managing children with social-emotional difficulties, positive behavioural support, and teacher education in ASD. She has been part of numerous large-scale research projects and has delivered training to parents and teachers for enhancing children's emotional and social skills. She served on the Hong Kong Special Administrative Region Curriculum Development Council Committee on Special Educational Needs and Hong Kong Examinations and Assessment Authority as an expert panel member. Her current research focuses on teacher education in inclusive education.

**Michael Arthur-Kelly** as a Conjoint Professor at the University of Newcastle, Australia, Prof. Arthur-Kelly is focusing his energies on international collaborations with colleagues in his field around the world, centred on inclusive evidence-based

practices. He has conducted applied research in a range of areas in disability and special education including communication intervention for people with severe disability and staff training in managing challenging behaviour. He is internationally known for his research on behaviour state assessment protocols for people with multiple and severe disability. In 2009, with Professor Phil Foreman, he conducted an evaluation of educational programmes for the Alice Betteridge School, part of the Royal Institute for Deaf and Blind Children, and in that year he also contributed to the Review of Special Education in the ACT, led by Professor Tony Shaddock. Throughout 2013–2019 he has served as a Subject Area Expert with Price Waterhouse Coopers and Monash University in the federally funded analyses of Nationally Consistent Collection of Data about Students with Disabilities, a leading-edge project designed to assist in understanding the support needs of students with disabilities across and within school sectors in Australia.

## About the Authors

**Grace W. Chan** is an experienced teacher and counsellor. She is a project officer in the Department of Special Education and Counselling at the Education University of Hong Kong. Ms. Chan has provided tailor-made small group training programmes for students with ASD in the primary and secondary schools in Hong Kong.

**Kwok-ching Chan** is a registered social worker and currently the student guidance officer at CNEC Lau Wing Sang Secondary School. She has been serving students with SEN and their parents for over 17 years. She has been a guest speaker for the Hong Kong Education Bureau, the Education University of Hong Kong, and several secondary schools. Ms. Chan also supports different schools in teacher training and consultation regarding SEN cases.

**Tak-foo Cheng** has been the principal of CNEC Lau Wing Sang Secondary School for 20 years. Before taking up the principalship at CNEC Lau Wing Sang Secondary School, he taught chemistry in Ying Wa College for 18 years and was the school's guidance master for 11 years. Mr. Cheng successively obtained a B.Sc., Cert.Ed., and M.Ed. (educational guidance) degrees from the University of Hong Kong. Later, he was conferred an M.Ed. (research and professional studies) from the University of Bristol in the UK. He has been an associate fellow at the Hong Kong Professional Counselling Association for more than 20 years.

**Ryan Yat-ming Cheung** works as the Lecturer in the Department of Psychology, the University of Hong Kong. He is the Chairperson (2021–2023) of the Division of Educational Psychology, the Hong Kong Psychological Society. He is also an appointed member of different committees under the Hong Kong Government and

other statutory associations, including the Committee on Gifted Education, Committee on Home-School Co-operation and Committee on Special Needs Candidates.

**Meng Deng** is currently a professor at the Institute of Special Education and director of Research Centre for Inclusive Education in East China Normal University, Shanghai, China. His research interests include inclusive education, education for children with visual impairment and developmental disability, and curriculum design and instruction for special schools.

**Li-yu Hung** is a professor in the Department of Special Education and the dean of Teacher Training College at Taiwan Normal University in Taipei. She has conducted several national studies and published hundreds of articles and chapters. She participates actively in domestic and international professional societies, often in leadership roles.

**Noriaki Katagiri** received a PhD from Hokkaido University in 2013 in the field of international media and communication. He is currently a professor at Hokkaido University of Education, Asahikawa campus. His research interests include building spoken corpora, classroom discourse analyses, and English language acquisition at primary, secondary, and tertiary education.

**Shing-yan Lai** is a social worker in Hong Kong. She has been working with children and adolescents with autism spectrum disorder for over 15 years. She currently works as the Project Manager of Project Aspire, The Education University of Hong Kong.

**Yukiko Ohashi** is an associate professor at Yamazaki University of Animal Health Technology. She earned her PhD in literature in 2014 at Showa Women's University, Japan. Her principal research is in the field of corpus linguistics. She has published several articles on aspects of language learning, in particular corpus compilation.

**Sam Ka-Lam Sam** is an experienced educator and researcher. He has taught in the secondary and tertiary sectors for over 10 years, and his studies have been published in educational/clinical assessment and health-related peer-reviewed journals, such as *Support for Learning*, *Research Quarterly for Exercise and Sport*, and *European Journal of Paediatric Neurology*.

**Ka-yan Tse** is a lecturer in the Department of Special Education and Counselling, the Education University of Hong Kong. She has served in local schools supporting students with special educational needs for many years. Her recent work includes providing training for in-service teachers in supporting students with ASD in mainstream schools.

**Akihiko Wakamatsu** is a professor of the Graduate School of Education at Hiroshima University. His work focuses on the education of individuals with autism spectrum disorder. His research has been published in academic journals, including *the Japanese Journal of Special Education*, *the Journal of Rehabilitation Psychology*, *Journal of Elementary Education and Curriculum*, and *the Japanese Journal of Classroom Management Psychology*.

**Misa Wakamatsu** is a PhD candidate at the Graduate School of Education at Hiroshima University. Her research interest is the study of individuals with autism spectrum disorder. She has published papers in the *Japanese Journal of Special Education* and the *Journal of Rehabilitation Psychology*.

**Tiantian Wang** is currently a PhD student at the Institute of Special Education of Beijing Normal University, and her research interests include higher education for special education, intervention for children with ASD, and inclusive education.

**Lily Mui-kheng Yip MEd, BA**, is the head of the preschool at the Association for Persons with Special Needs, Singapore. She has contributed two chapbooks on autism and poetry for special education. Her research focuses on school-to-work transition, autism, and curriculum leadership.

**Han Zhu** is currently a Master student at the Institute of Special Education of Beijing Normal University, and his research interests include education for children with developmental disability and inclusive education.

## Contributors of the Commentaries

**Wendi Beamish PhD**, is a senior lecturer in special needs education at Griffith University, Australia. A 30-year career in special education and early childhood intervention preceded her transition into the tertiary sector. Her research focuses on teacher practice in the areas of educational transitions, autism, behavioural support, social-emotional competence, and inclusive practice.

**James Basham PhD**, is an associate professor in the Department of Special Education at the University of Kansas and the co-founder of the Universal Design for Learning Implementation and Research Network. His research focuses on the implementation of UDL, learner-centred design, innovation, and technology in human learning.

**Eleazar Vasquez III PhD, BCBA-D**, is the director of the Toni Jennings Exceptional Education Institute and an associate professor in the Exceptional Education programme at the University of Central Florida. His current research focuses on the evaluation of academic and behavioural outcomes for students with autism utilising technology for enhancing instruction.



# Part I

## Professional Learning on Autism Spectrum Disorder for Teachers in the Asia Pacific Region

**Michael Arthur-Kelly**

This part sets the scene for the remainder of the book by critically reviewing the current situation in the delivery of educational approaches, systems of support and professional learning for teachers of students with ASD in the Asia Pacific and beyond. What types of approaches are used in supporting students with ASD? How do educational systems in various countries in the Asia Pacific region ensure the provision of high-quality evidence-based teaching and learning programs, and what part does capacity-building in the teaching profession play within these plans? What might this professional learning look like and how effective could it be in improving learning outcomes for students with ASD and their peers?

It is interesting to see the shared challenges faced by educational systems and teachers of students with ASD and other needs, regardless of location, school type or setting. The insights provided here from various countries in the Asia Pacific remind us of the collegiality of practice, the vital importance of collaborative cultures of support for students in classrooms and schools, and the pressing need to evaluate the best modes of professional learning in order to maximise outcomes for learners. The reader may wish to consider: What are the implications of these points for their own practice and professional growth, and how can educational systems ensure the delivery and refinement of evidence-informed professional learning protocols that stimulate and maintain changed practices for the benefit of all learners?

# Chapter 1

## Contextualising Teacher Education for Children with Autism Spectrum Disorder in Hong Kong



**Fuk-chuen Ho**

**Abstract** This chapter discusses the effectiveness of current professional development programmes for teachers of students with autism spectrum disorder (ASD) in Hong Kong. The article first introduces the available services for students with ASD. The Resource Teaching Programme has been the major service provided by special schools since 1984. The principle of teaching students with special educational needs (SEN) in the least restrictive settings has rendered a rapid growth of the population of students with ASD in ordinary schools in the last decade, causing concern among the teachers. Different tiers of professional development programmes have been developed to equip teachers in ordinary schools with the knowledge and skills needed in dealing with students with SEN. However, these programmes are mainly short term and transmitted directly from the top down. The lack of opportunity to practise newly acquired knowledge and skills in real environments cannot provide sufficient confidence for teachers to handle students with ASD independently. The final part of this chapter provides a recommendation for a collaborative mode of professional development that can assist teachers in gaining practical experiences in a field-based training programme.

**Keywords** Three-tier support · Professional development programme · Field-based

### 1.1 Introduction

Autism spectrum disorder (ASD) is a developmental disability, which affects the normal functioning of the brain. Over the last few decades, the rate of autism cases has been on the rise. The ‘Special Topics Report No. 48: Persons with disabilities and chronic diseases’ (Census and Statistics Department, 2008) estimates that approximately 2500 persons under the age of 15 have ASD in Hong Kong. However, the New Funding Mode scheme reported the number of students with ASD as 7821

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F.-c. Ho (✉)

The Education University of Hong Kong, Hong Kong, China

e-mail: [fcho@eduhk.hk](mailto:fcho@eduhk.hk)

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for the 2016–2017 school year (Audit Commission, 2018). Given that the total number of primary and secondary students in Hong Kong during the 2016–2017 school year was approximately 700,000, the number of ASD students is far below that reported by the Centers for Disease Control and Prevention (CDC) in the USA. The CDC estimates that the prevalence of ASD diagnosis in children is as high as 1 in 68 (or 14.6 per 1000 8 year olds).

The difference can be attributed to the broadening of the conceptualisation of autism as a spectrum disorder. The educational policy of early identification and intervention may be a factor that accounts for this difference. The increase of the number of individuals with ASD has caused the rise in enrolment of this group of students in schools, and the increase has resulted in a corresponding demand for appropriate instructional programmes to be provided (Lerman et al., 2004). The core deficits of students with ASD have resulted in the mounting pressure on teachers to design effective teaching programmes for students' special needs. The pressure on teachers has caused concerns regarding the need for professional development to enhance their knowledge and understanding of the complexities of ASD, the skills in curriculum design and the implementation of teaching approaches for students. This chapter begins with an introduction of the available services for students with ASD in Hong Kong and proceeds with a discussion on the existing professional development programmes. Lastly, a new mode of professional development for teachers of students with ASD is recommended.

### ***1.1.1 Services for Students with ASD in Hong Kong***

Hong Kong has adopted a dual-track system to provide special education services for children with special educational needs (SEN). Students with severe SEN or multiple disabilities are referred to special schools for intensive support services. Students with less severe SEN are placed in ordinary schools. The placement is subject to the assessment and recommendation of specialists' and parents' consent. At present, 60 government-aided special schools exist in Hong Kong (Education Bureau, 2018). All primary and secondary schools are obligated to accept the application of students with SEN.

Among the different types of disabilities, students with ASD received increased attention and services in the 1980s. The majority of children with ASD at that time were placed in special schools for children with mild or moderate intellectual disabilities. In 1987, the service was delivered in the form of the Resource Teaching Programme (RTP) for autistic children in special schools. The goal of the RTP was to train and enable children to participate fully in their own classes. Students were provided with enhanced support and ordinary classroom teaching in the form of individual or small group interventions, in-class support and follow-up interventions in accordance with their needs, learning performance and the nature of the teaching activities (Hong Kong Education Bureau, 2015). The role of resource teachers was to give additional assistance in behaviour management and training in communication

**Table 1.1** Profile of students with SEN from 74 ordinary schools joining the new funding mode in 2004

Types of SEN	VI	HI	ID	PD	ASD	LD	ADHD	SLI	SpLD	Others
No. of students	4	41	66	5	34	1596	42	135	298	56

Note. *VI* visual impairment, *HI* hearing impairment, *ID* intellectual disability, *PD* physical disability, *ASD* autism spectrum disorder, *LD* learning difficulties, *ADHD* attention-deficit/hyperactivity disorder, *SLI* speech and language impairment, *SpLD* specific learning difficulties (Education Bureau, 2022a)

**Table 1.2** Profile of students with SEN in Hong Kong ordinary schools for school year 2016–2017

Types of SEN	VI	HI	ID	PD	ASD	ADHD	SLI	SpLD
No. of students	107	647	1578	304	7821	9442	2871	20,120

Note. *VI* visual impairment, *HI* hearing impairment, *ID* intellectual disability, *PD* physical disability, *ASD* autism spectrum disorder, *ADHD* attention-deficit/hyperactivity disorder, *SLI* speech and language impairment, *SpLD* specific learning difficulties (Education Bureau, 2022a)

and social skills (Rehabilitation Division, Health and Welfare Branch, 1996). Additional resources were provided for special schools with an RTP at two levels. The intensive RTP was provided for children with ‘core autism’ at a provision ratio of one resource teacher to eight children with ASD. The less intensive RTP was provided for children with autistic features at a provision ratio of one resource teacher to 16 children with ASD. Special schools with RTP could employ, on average, an additional resource teacher for the enrolment of an average of 12 children with autism or autistic features. Until the school year 2018–2019, all special schools for students with a mild or moderate grade of intellectual disability continued to operate the RTP.

The Hong Kong government has launched integrated education (IE) in two phases since 1997. The first phase was conducted from 1997 to 2003, with the aim of starting the ‘integration project’ to integrate students with disabilities of five types, namely, physical, intellectual, autism, auditory and visual impairments. A total of 117 primary and secondary schools joined this project, and 793 students with disabilities were integrated. The resources given to schools included an additional resource teacher and funding for the purchase of required equipment. From 2004 onwards, the second phase commenced, and a new funding mode was introduced to replace the integration project.

The following tables show the change of the profiles of the students with SEN over the years since the launch of the IE scheme (Tables 1.1 and 1.2).

The large increase from 34 students with ASD to 7821 students with ASD in ordinary schools indicated an urgent need for the government to provide schools with sufficient resources to cater to the needs of schools. A three-tier intervention model was recommended by the Hong Kong Education Bureau for ordinary schools to plan support programmes for students with special needs. This model was adapted from the Response to Intervention (RTI) in the USA. RTI is considered a service delivery approach for providing different intensity levels of intervention to students (Batsche et al., 2006). This framework aims to address the academic and behavioural needs of all students in less restricted environments (Fuchs and Fuchs, 1998).

**Table 1.3** Aims of the three-tier support and funding for each tier

Support Tier	Aim	Funding
Tier 1	Early identification and quality teaching in the ordinary classroom for students with transient or mild learning difficulties	No additional funding for this tier
Tier 2	Additional support for students with persistent learning difficulties	A grant of HK\$13,725 for each student
Tier 3	Intensive individualised support for students with severe learning difficulties	Basic provision of HK\$164,700 per school for the first 1–6 students A grant of HK\$27,450 per student for additional students

Note. The grant for Tiers 2 and 3 was capped at HK\$1,583,616 per school per annum in school year 2016–2017 (Education Bureau, 2016)

RTI consists of three tiers of support. At Tier 1, all students are provided with research-based instruction in the general education classroom. Tier 1 instruction anticipates that approximately 80% of students will meet expectations. Tier 1 support consists of quality teaching in the regular classroom to support students with transient or mild learning difficulties. The 20% of students who remain behind their peers receive Tier 2 supplemental interventions. Tier 2 is an add-on intervention, which can be conducted through in-class support, withdrawal for small group teaching, placement in a class with a significantly improved teacher/pupil ratio and withdrawal for 1:1 support, among others. Approximately 5% of students receive intensive individualised research-based interventions at Tier 3 when Tier 2 support is ineffective. Tier 3 includes the creation of an individual education plan as an intensive individualised support for students with severe learning disabilities.

The following table shows a brief description of the mode of funding and instructional intervention to support students with different types of disabilities in ordinary schools (Table 1.3).

From the 2019/2020 school year, the EDB restructured the Learning Support Grant (LSG), the LSG unit grant rate for tier-3 support was increased multifold. The unit grant rate for tier-2 is \$15,000 where that for tier-3 is \$60,000 (Legislative Council, 2019).

Numerous studies have highlighted teacher inadequacy to effectively address children with special needs in ordinary classrooms (e.g. Monahan et al., 1997; Schumm & Vaughn, 1992). A British Columbia Teacher Federation survey (Naylor, 2002) revealed that a main concern of teachers was the lack of preparation for teaching a class that included students with ASD. In Hong Kong, Dowson et al. (2003) indicated that many teachers considered that the most problematic category of disabled children to deal with was those students with ASD. Teachers' perceptions about children with ASD were not surprising. Children with ASD manifest themselves through multiple facets of behavioural idiosyncrasies and developmental

delays. Particularly, they have limited verbal and communicative behaviours and abnormal social relationships.

Jennett et al. (2003) noted a need for adequate training for all teachers who handle students with ASD. Research has shown that a good teacher is a significant factor in improving the chances of success for all students (OECD, 2005; Stronge, 2007). Teachers need to have the necessary skills to be able to support a diverse range of learners for the teaching of students with SEN to be effective. The preparation of teachers for inclusive/special education requires suitable and authentic training to be available to pre- and in-service teachers (Sharma et al., 2012). Teachers need training to use a wide range of teaching strategies and have increased access to professional advice on approaches to education (Mitchell, 2014). Moreover, highly qualified teachers should be developed and retained (Darling-Hammond & Sykes, 2003). Teacher quality encompasses many factors. Lewis et al. (1999) noted that teachers' content knowledge and teaching practices are two important subsets of good teacher quality. A subset of teacher quality refers to the general knowledge of the discipline, whereas the other subset involves a continuum ranging from the teaching of basic skills to that of complex thinking.

The current practice of professional development for teachers for students with special needs in Hong Kong works towards the accomplishment of these subsets of quality. In general, the majority of Hong Kong teachers possess a basic degree. However, teachers may not have professional training in SEN. To fulfil the requirement, teachers must attend professional development programmes that can provide them with the opportunity to acquire a good knowledge of ASD and instructional strategies for students with ASD.

## ***1.1.2 Professional Development Programme for Teachers of Students with ASD in Hong Kong***

### **1.1.2.1 Education Bureau Commissioned Programme**

The basic qualification of teachers in Hong Kong primary or secondary schools is a bachelor's degree and a postgraduate certificate in education. Teachers need no specific requirement to be qualified to teach a particular type of disability in Hong Kong. In most cases, teachers of students with SEN attend special education professional development programmes when they find the need to strengthen their skills in dealing with this group of students.

Different governments have given financial resources to professional development programmes for improving teacher quality. The US government has allocated US\$400 million to support teacher quality programmes (Klein, 2009), and the Australian government has dedicated US\$550 million to the National Partnership agreement on Improving Teacher Quality (Department of Education, Employment and Workplace Relations, 2010).

The special education training for teachers of special or ordinary schools before 2004 was conducted in the form of a 1-year full-time and 1-year part-time programme of study (i.e. The Course for Teachers of Children with Special Educational Needs [TCSEN]). The Education University of Hong Kong ran this programme, which aimed to develop theoretical concepts and practical teaching techniques for teachers handling children with SEN and provide them with the necessary knowledge and skills for effective teaching. The programme required participants to complete a study of four core courses, three specialised courses, three elective courses, a six-week field experience practice in the first year and an action research project in the second year (Education University of Hong Kong, 2003). A course on ASD was offered as an elective for programme participants. An average number of 100 teachers were recommended by heads of schools to attend the programme. Programme participants were required to obtain recommendations from school principals. The Education Bureau funded the schools to recruit supply teachers to maintain regular teaching duties in schools and to substitute for programme participants. In most cases, over 75% of programme participants were teachers from special schools.

Poon-McBrayer (2004), however, commented that the delivery of this mode of training was so expensive that the Education Bureau would find it difficult to support it for the long term. Owing to the intensive mode of TCSEN no longer being feasible to provide such a large number of training places for teachers for the new trend of education, the TCSEN was replaced by a part-time programme of study. The Professional Development Programme for Teachers (Catering for Diverse Learning Needs) (PDP (CDLN)) was created in 2004. The new programme aimed to enhance the professional knowledge and skills of teachers in using whole-school approaches and effective strategies to support students with special needs in mainstream inclusive or special education settings. The programme offers two levels of training to cater to the different needs of teachers. Level 1 consists of 30 h of training on the basic understanding of learning diversity, classroom practice and supporting students with SEN. Level 2 is a 90-h programme that provides additional in-depth thematic studies and action research. Teachers can attend both levels to complete 120 h of training or take either level to suit their professional needs.

Students are required to study one core course at Level 1, which is Catering for Classroom Diversity. At Level 2, students are required to study one core course and two elective courses. The core course is Whole-School Approaches to Inclusive Practices, whereas optional courses include School-based Action Research, Supporting Students with Emotional Behavioural Challenges, Understanding Students with Giftedness, Overview of Language, Physical and Sensory Difficulties, Helping Students with Autism and Asperger Syndrome, Supporting Students with Specific Learning Disabilities, Meeting the Needs of Students with Intellectual Disabilities and School Guidance and Counselling.

In addition to the regular PDP (CDLN), the Hong Kong Education Bureau commissioned the Education University of Hong Kong to operate a five-year scheme of professional development for teachers of students with SEN. The commissioned programmes were conducted in a full-time block-release mode. Schools were funded

by the Hong Kong Education Bureau to release their teachers to attend the 1-week basic, 3-week advanced or 2-week thematic programme. The former two types of programmes are similar to the Level 1 and Level 2 programmes, respectively. The thematic programme is considered to be a Level 3 programme, which focuses on the study of a specific disability, such as ASD, ADHD or intellectual disability.

In Hong Kong, the 30-h basic programme of the PDP (CDLN) is a general introduction of education for students with diverse needs. Teachers can be exposed to a considerably in-depth study of ASD by attending the 30-h elective course in the advanced programme of the PDP (CDLN) and two 30-h courses in the thematic programme of the PDP (CDLN). A teacher who is interested in studying the area of ASD can have a total of 120 h of training. The course, *Helping Students with Autism and Asperger Syndrome*, aims to assist programme participants in acquiring the knowledge and skills to develop comprehensive approaches and support the development of students with autistic spectrum disorders so that they can develop better adjustment to school life. The programme content includes analysing the common features and differences in the behaviours of distinct subgroups of students within the autism spectrum from childhood to adulthood; reviewing the cognitive, communicative, social and sensory integration deficits associated with autism and the behaviours that reflect these developmental difficulties; examining other factors influencing the behaviour of students with autistic spectrum disorders (e.g. environment, health, stress and anxiety); evaluating current intervention practices (e.g. TEACCH, visual strategies, social stories and sensory integration) and insights provided by adults with autistic spectrum disorders; identifying key features of effective interventions; conducting functional assessment and applied behavioural analysis to address essential developmental needs and the needs arising from other factors influencing the behaviour of individual students and exploring related provisions and support services to optimise students' adjustment potential in school life (Education University of Hong Kong, 2011).

The inspection results of the programme content reveal the information to be comprehensive. However, the content is delivered in the mode of lecturing. Generally, a 3-h lecture covers one curricular item. This type of delivery is economical, direct and efficient. However, sufficient time and space for teachers to further the investigation of the strengths and weaknesses of each study area is not given. In addition, teachers are not offered the opportunity to observe a teaching demonstration in a real environment. They are also not required to practice the learned skills in schools.

In comparison with the previous TCSEN, the new mode of professional development in the area of special education can only afford to offer a limited number of courses in the lecturing mode of delivery. Programme participants are no longer provided with an opportunity for practice teaching and conducting action learning projects. In addition, the new programme requires no full-time campus study, which offers programme participants ample space and time to discuss with peers their experiences in curriculum planning, behaviour management and teaching delivery. Participants in the new programme have less opportunity to utilise the campus library facilities for further investigation of newly developed teaching strategies



and the current trend of the education for students with SEN. The only benefit of the change of the training mode is the dramatic increase in the number of trained teachers in special education. The expense for this change is the weakening of the training content and shrinkage of the training duration.

For school year 2007–2008, in addition to the regular PDP (CDLN), the Education Bureau commissioned the Education University of Hong Kong to create a block-release mode of PDP for teachers of primary, secondary and special schools. The basic, advanced and thematic programmes have been designed to systematically enhance teachers' professional capacity in supporting students with SEN. The Tier 1 support for teachers' professional development is a 30-h basic programme. Principles and theories of curriculum assessment and teaching strategies for students with SEN are the major components in this tier of professional development. The aim is that at least 15–25% of teachers in each school will attend the 30-h basic programme. The objectives aim at assisting teachers to understand the policy and principles of IE in Hong Kong and the current practices in supporting students with SEN in an inclusive environment targeting an understanding of the learning needs of students with SEN and the important role of their parents in supporting them. It further aims to grasp effective intervention and support strategies for the students and develop a positive attitude for cultivating an inviting environment for students with SEN, and to comprehend the principles and processes in deploying the appropriate curriculum, pedagogy, assessment, special arrangements for internal examination and supporting strategies and skills catering to the diverse learning needs (including NCS students from diverse cultural background) of students with SEN, which can benefit other students. Upon completion of the course, the programme strives to enable teachers to share their knowledge and skills with other teachers in their serving school.

Tier 2 support consists of a 102-h advanced programme, including a study of three 3-credit point courses. At least six to nine teachers in each school can receive this tier of training. The advanced course,<sup>1</sup> built on the basic course, aims to further strengthen the understanding and application of the participants on the theories, knowledge and skills in adopting the Whole-School Approach to effectively cater for the learning needs of students (including NCS students) with various SEN in schools. It also aims to raise learning outcomes of these students and other students within the school or class and utilise internal and external resources where appropriate.

Tier 3 support is a thematic programme covering materials of specialised skills in handling students with ASD, ADHD or SpLD. The expectation is that at least six to nine teachers in each school have to attend the programme of this tier. This course is aimed at assisting teachers to work independently with minimal professional support

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<sup>1</sup>Since 2021/22 school year, the delivery mode of the Basic Course has changed from face-to-face to online self-study. The duration of the Advanced Course and the Thematic Courses were shortened. It is expected that starting from 2021/22 school year in six school years, at least 80%, 20% and 25% of Hong Kong teachers will have completed the Basic Course; the Advanced Course; and the Thematic Courses, respectively (Education Bureau, 2022a, b).

from other organisations in planning, developing, implementing and evaluating effective behaviour intervention programmes for primary and secondary students with BESDN. The focus of this course is on students with ASD, ADHD and EBD (including those with mental health problems) based on a three-tiered model of service delivery. The education/behaviour intervention programmes should benefit other students within the school or class to meet their academic, social-communicative and emotional needs; update teachers on the latest theories, approaches and strategies from scientific research of ADHD, ASD and EBD; and equip teachers with a repertoire of strategies to enhance the higher-order thinking, comprehension and learning skills of students with ASD, ADHD and EBD in pursuing the new senior secondary curriculum.

The difference of the commissioned programme from the regular PDC (CDLN) is the offer of the Tier 3 thematic programme. The current professional development programmes at their basic and advanced levels are multicategorical in nature. A relatively in-depth study of a particular category of disability is offered at the thematic level. A teacher who has a particular interest in ASD can have approximately 93 h of face-to-face training, that is, 3 h in the basic programme, 30 h in the advanced programme and 60 h in the thematic programme. The training hours for a specific category of disability are limited. Researchers (e.g. Scheuermann et al., 2003; Whitten & Rodriguez-Campos, 2003) queried whether noncategorical or multicategorical programmes can provide instruction in the range of specialised skills needed by teachers of students with ASD. Firstly, Scheuermann et al. (2003) doubted that teachers who were qualified as generic special education teachers were qualified as teachers of students with ASD. Secondly, the teachers of students with ASD may not be readily exposed to instructional techniques that are research based. This situation differs from instructional techniques for students with high-incidence disabilities, for example, ADHD (Collins & Salzberg, 2005). In addition, the problem of the current PDP (CDLN) is that the mode of delivery is conducted via lecturing. This top-down approach does not provide programme participants with teaching experience in a real environment. Encouraging professional dialogue among programme participants is difficult. Therefore, obtaining reflective feedback for their teaching and generating useful ideas in their instructional programme is not probable for the participants.

The advantage of the current PDP (CDLN) is that a relatively large number of teachers in ordinary schools can enhance their knowledge in special education in a short period of time. Different tiers of training are offered, and participants are able to opt for the tier of training, depending on their needs and available time for professional learning.

Therefore, strengthening training programmes that can provide evidence-based guidelines for teachers to cater to the needs of students with low functioning in different settings is important (Browder & Cooper-Duffy, 2003).

For the school year 2014–2015, a practicum was embedded into the advanced and thematic courses. The practicum consists of four sessions of practice teaching. A learning community approach was adopted in the implementation of this programme.