

# **USING MEDIATED LEARNING EXPERIENCE (MLE) AS A SUPPORTING MODE FOR TEACHING ASSISTANTS TO EMPOWER STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN INCLUSIVE SCHOOLS OF HONG KONG**

*Liu Yan Tat (liuyt@ied.edu.hk)*

*Centre for Special Educational Needs and Inclusive Education  
The Hong Kong Institute of Education*

*Au Fung Yu\*, Chan Man Chung\*, Chan Mei Tsang\*,  
Cheng Ka Yee\*, Lam Hong Ki\*, Wong See Chung\**

*The Hong Kong Institute of Education  
(\*These authors contributed equally)*

*Au Mei Lan*

*Centre for Special Educational Needs and Inclusive Education  
The Hong Kong Institute of Education*

*Kenneth Sin, Kuen Fung*

*Centre for Special Educational Needs and Inclusive Education  
The Hong Kong Institute of Education*

## **Abstract**

Teaching assistants (TAs) have been introduced to support special educational needs (SEN) students and classroom teachers for quality learning in Hong Kong recently. However, most TAs are not adequately trained to work for this goal and there lacks empirical evidence about how effective TAs support SEN students and teachers. Among a wide range of effective support strategies for inclusion, the 'Mediated Learning Experience' (MLE) from Feuerstein's theory is widely recognized in school practices in European countries and evidences from research show that it facilitates SEN students to learn better in inclusive settings. In this pilot study, this facilitation technique, that builds a child's capacity how to learn more independently, has been chosen as an approach for TAs to support SEN students. The study is divided into 3 stages: the pre-test stage, the experimental stage and the post-test stage. Six pairs of teachers and TAs from six mainstream primary schools as well as two primary 4 (P.4) students with SEN from each school have been recruited. The effectiveness of MLE in improving TAs' attitudes towards SEN students and their self-efficacy in supporting SEN students has been examined by using a combination of methods, involving measurements of students' pre and post-test academic performances, analyses of focus

group interviews and video recordings of classroom observation. We have also adapted a Mediated Learning Experience Rating Scale to monitor progress of the participant TAs. Preliminary findings indicate that MLE is a promising supporting mode for TAs in the integration of SEN students in Hong Kong mainstream schools.

**Keywords:** Teaching assistant, Mediated Learning Experience, SEN

## **Introduction**

Since the implementation of inclusion, educators are presented with great challenges in catering for the needs of a wide range of ability in the inclusive classrooms (Ainscow, 1999; CSNSIE, 2003). Generally, studies researching about the implementation of inclusive education in Hong Kong are limited. The statistics raised by reports and government about the number of SEN students studying in all the mainstream schools in Hong Kong, particularly the categories of disabilities, is always debatable (Rehabilitation Advisory Committee, 2007; Hui, 2008).

A local study on the implementation of inclusive education in Hong Kong Primary Schools, jointly conducted by The Hong Kong Primary Education Research Association and The Hong Kong Special Education Society in 2006 (Tsui et al, 2006), 90% of the participating teachers reported that inclusive education has increased the difficulties in teaching, and 74.2% of the teacher respondents expressed that SEN students hinder the learning progress of the non-SEN students. The teacher participants came from 96 primary schools, which were about 13% of the primary schools in Hong Kong (total 712, government statistics 2005). Tsui et al. (2006) found that there were around 33.6 SEN students in each primary school in Hong Kong, no matter whether the school had joined in the government inclusive education scheme or not. This implies that there would be around 5% to 10% of SEN students in each Hong Kong primary school with the assumption of 300 to 700 students per school. This statistic is similar to the population of SEN students reported in overseas schools such as in the UK or USA (EOC, 2012). In accordance with the figure provided by Education Bureau, the number of students with SEN in ordinary schools has been on the rise in recent years.

With an increasing number of SEN students being included in the mainstream classrooms and teachers reported severe difficulties to face the various challenges to cater for the needs of students with and without SEN in the same lesson, teaching assistants (TAs) are being brought in as a means of support to teachers and students. However, TAs could not automatically help to settle the problem since they are not qualified teachers and their qualifications vary widely. Hence, TAs usually help classroom discipline and repeat teachers' instructions to the SEN students without interrupting the whole class teaching. While the TAs numbers are increasing along with the number of SEN students, there are concerns about whether TAs' support is effective towards the learning of SEN students. There are researches, (e.g. Blatchford et al., 2012; Takala, 2007; Wedell, 2005) indicated that the existence of teaching assistants may be a potential factor hindering the inclusive development, if over-reliance by teachers is taken into account, alongside with researches which endorse the value of TAs in assisting the implementation of inclusive education (Farrell, 2004; Anderson et al., 2007).

In the “Deployment and impact of support staff project” (DISS) conducted by Blatchford, Bassett, Brown, Martin, Russell and Webster of Institute of Education, University of London, it obtained reliable data on the deployment and characteristics of support staff and the impact of support staff on pupil outcomes and teacher workloads over a five-year period (2003-08) ([http://www.ioe.ac.uk/diss\\_research\\_summary.pdf](http://www.ioe.ac.uk/diss_research_summary.pdf)). This study was the biggest worldwide and the only study we know of that investigated the impact of TAs on pupil academic progress in normal classrooms over the school day. It found that those pupils who received the most support made less progress than other similar pupils even when child factors likely influence support and progress (like SEN status and prior attainment) were taken into account. This finding applied particularly, though not exclusively, to pupils with SEN. The importance of this study is that it shows that in the UK at least pupils with SEN in mainstream schools tend to be supported by TAs, and yet this has been shown to have a negative impact. This raises the stakes and shows that the current deployment of TAs can no longer be justified.

There are findings from the UK and the US which indicated the misuse and overuse of TAs of the current educational systems (Giangreco, 2010) and concerns are raised about the ‘inadequacy of their preparation, training and supervision’ (Giangreco, 2010, p342). Alongside with Giangreco, the inadequacy of the TA preparation was one of the core components that Blatchford et al. (2012) summarized as affecting the impact of TA support. The educational consequences of the TA involvement seem to be the result of decisions from the school leaders and teachers on how TAs work, their deployment and preparation. These are three core dimensions that impact positive learning outcomes of SEN students. Blatchford et al. (2012) explained that the preparation of TAs can be described as the training and professional development of TAs and teachers, or the collaboration and communication between teachers and TAs such as aspects of planning and feedback between each other. Training and continuing professional development are significant factors that provide opportunities and qualifications for TAs to be confident, better prepared and skilled in their roles (Balshaw, 2010).

The level of preparation affects the maximizing and inhibiting TA effectiveness and that directly relates to the quality and success of learning experiences of SEN students (Fox, 2003; Farrell, 2004) and positive inclusion and participation (Moran and Abbott, 2002). The lack of preparation, particularly the collaboration and communication between TAs and teachers, could result in the role of TAs operating in a reactive, not building on prearranged instructional aims, instead of proactive approach. Furthermore, an effective deployment of TAs improves the quality of curriculum experience for all students and likely reduce barrier for participation for students who have challenges in mainstream learning (Balshaw, 2010).

Inclusive education was firstly started in the form of integration following its introduction by the Hong Kong government in 1997. Since then, Hong Kong education has experienced a major change with SEN students receiving education in ordinary classrooms in parallel to their same age peers (Sin, 2010). The Education Bureau (EDB) proposed a 3-tier intervention model with increasing levels of teacher support in regular schools in 2007 (Education Bureau, 2007). Tier-1 support refers to quality teaching with an emphasis on catering for the learning needs of individual students including SEN students. Tier-2 support is an “add-on” intervention to meet the needs of SEN students whose needs could not be met in the Tier-1 teaching. Tier-3 support is more intensive support, as an “add-on” intervention for students with significant difficulties in learning.

With an increasing number of SEN students being included, teachers reported various challenges in catering for the needs of students with and without SEN in the same lesson (Equal Opportunities Commission, 2012). They find the Tier-1 support of quality teaching really difficult to achieve under the same curriculum for all. SEN students encountered difficulties to learn the same curriculum in the same pace as their peers. Even though teaching assistants (TAs) are brought in the inclusive classroom, they could not help much to settle the problems. TAs are not qualified teachers, and their qualifications vary widely. It has been criticized that TAs help classroom discipline and repeat teachers' instructions to SEN students. While there are researches endorsing the value of TAs in assisting the implementation of inclusive education (Farrell, 2004; Anderson et al., 2007), there are also researches (Blatchford et al., 2012; Takala, 2007; Wedell, 2005) indicated that the existence of TAs may be a potential factor hindering the inclusive development, if over-reliance by teachers is taken into account.

The issue is three-folded. Firstly, teachers always report the lack of support in catering for diversity under the same curriculum, which limit their capacity in advancing inclusive education (CSNSIE, 2003; Forlin, 2008). The inclusion of SEN students increases teachers' daily workload and the strong emphasis on student academic achievement further deteriorates teachers' motivation and capacity for inclusion (Peters & Forlin, 2011; Sin et al., 2011). Secondly, the role of TAs becomes undermined since they are lack of appropriate knowledge and skills about how to support SEN students and teachers in inclusive practice. In fact there is a lack of literature about which TAs' supporting mode is effective for facilitating the learning of SEN students. Lastly, the demand and resources of learning support becomes increasingly profound since the more students fail in Tier-1 support; the more the students will be referred to Tier-2 and Tier-3 (Tsui et al., 2006).

Given the provision of TAs in inclusive practice, it is meaningful to examine the difficulties and collaboration experienced by teachers and TAs. It is also of great concern to seek for a facilitating approach for TAs to support SEN students and teachers. Over the years, Feuerstein and his colleagues examined a number of approaches to enhance the cognitive abilities of children with special needs. Because of the learning difficulties, these students are with limited capacity for learning, despite the support in learning. Feuerstein believes that with appropriate mediation (i.e. interactive learning experiences), many children can learn to greater degrees than usually expected. In his work, he elaborated the understanding of the basic conditions underlying learning disorders and defined the specific cognitive capacities necessary for learning. He also examined how to develop these capacities to allow each child to move forward through mediated learning experience.

Mediated Learning Experience (MLE) describes a special type of interaction between a learner and a person, whom we shall call a "mediator." Three important features are important for the learner's thinking process to be successful, i.e. must characterize the interaction: intentionality; reciprocity, mediation of meaning; and transcendence. The mediator should have knowledge and skills in analyzing the difficulties of the learner during the input stage of problem solving (stage 1), difficulties of the learner during the elaboration phase (stage 2) and difficulties of the learner during the output phase (stage 3). In the Feuerstein's Instrumental Enrichment Program (FIE),

the program is a cognitive education program has been successfully used in 70 countries as a tool for the enhancement of learning potential in specially challenged individuals and those in high-risk environments. FIE is a classroom curriculum designed to enhance the cognitive functions necessary for academic learning and achievement. Thus the program seeks to correct deficiencies in fundamental thinking skills: provide students with the concepts, skills, strategies, operations and techniques necessary to function as independent learners; to diagnose; and to help students learn how to learn (<http://icelp.info/feuerstein-method/>).

### **Aim**

Various literatures (e.g. Fox, 2003; Farrell, 2004) have pointed out that the quality of support from teaching assistants directly relates to the success and the quality of learning experience of SEN students. The primary objective of this study is to evaluate the effectiveness of Mediated Learning Experience (MLE) as a supporting mode for teaching assistants to facilitate students with Special Educational Needs on their academic performance in Hong Kong mainstream schools.

### **Method**

**Participants:** The study recruited 6 pairs of teachers and TAs from 6 mainstream primary schools as well as two primary 4 (P.4) students with SEN from each school.

#### *Measuring Instruments*

(i) The 15-item Sentiments, Attitudes and Concerns about Inclusive Education Revised (SACIE-R) Scale (Forlin, Earle, Loreman & Sharma, 2011) has been used to measure teachers' dispositions about inclusive practice. Every item in the Scale uses a 4-point Likert scale and items on the sentiments and concerns subscales have been reverse coded before data analysis. Internal reliability as measured by Cronbach's alpha was acceptable for both the combined SACIE scale ( $\alpha = .74$ ) and the individual subscales of sentiments ( $\alpha = .75$ ), attitudes ( $\alpha = .67$ ), and concerns ( $\alpha = .65$ ). The development of the instrument was based on conceptual judgment and principal component analysis.

(ii) The Teacher Efficacy for Inclusive Practice (TEIP) Scale (Sharma, Loreman, & Forlin, 2011) has also been used as it was designed to measure teachers' perceptions of self-efficacy in using inclusive instructions, managing behaviour and in working collaboratively. The TEIP has three domains and a total of 18 items; and a 6-point Likert scale is used for each item. The internal consistency of the three domains, as measured using Cronbach's alpha, ranges from 0.85 to 0.93.

(iii) A Mediated Learning Experience Rating Scale (Lidz, 1991; Mentis et al, 2008) has been adapted to monitor progress of the participant TAs.

#### *Procedures: The study consists of three stages.*

(i) The Pre-test Stage: All the 6 pairs of TAs and teacher participants have been invited to (1) explain the difficulties experienced by them in their mainstream classrooms when catering for the needs of students with SEN. Their existing supporting mode towards students with SEN have been recorded; (2) fill in the Sentiments, Attitudes and Concerns about Inclusive Education Revised (SACIE-R) Scale and the Teacher Efficacy for Inclusive Practice (TEIP) Scale; (3) be observed for one lesson in which their target students with SEN are involved in it. This lesson has been videotaped for further analysis. The academic performance of the target students with SEN have been noted

through their performance report. Moreover, both the target students with SEN and their parents have been invited for focus group interviews about their situations.

(ii) The Experimental Stage: A course of 45 hours on the facilitation approach, MLE, to support the learning of students with SEN has been conducted for the 6 pairs of TAs and teachers participants who are supporting the two students with SEN in their school. After training, the 6 pairs of TAs and teachers participants will be observed in the beginning, mid-way and after 6 months of teaching. Both the beginning and mid-way lessons have now been videotaped.

(iii) Post-test stage: At the end of 6 months, they will also be asked to fill in the Sentiments, Attitudes and Concerns about Inclusive Education Revised (SACIE-R) Scale and the Teacher Efficacy for Inclusive Practice (TEIP) Scale. The academic performance of the target students with SEN has been and will be noted through their performance report. Furthermore, all the participating TAs and teachers, the target students with SEN and their parents will be invited for focus group interview about their views towards the supporting mode. Qualitative analysis will then be employed to analyse all the data collected.

### **Results & Discussion**

We are in the process of collecting the data for the post-test stage; preliminary findings of the study will be presented during our presentation.

### **Conclusion**

The preliminary findings of the study so far suggest that MLE is a promising supporting mode for teaching assistants (TAs) in the integration of SEN students in Hong Kong mainstream schools.

### **Acknowledgement**

This work was supported by the Hong Kong RGC General Research Fund (project number 844313).

## References

- Ainscow, M. (1999). *Understanding the development of inclusive schools*. London: Falmer Press.
- Anderson, C.J.K., Klassen, R.M., Georgiou, G.K. (2007). *Inclusion in Australia. What Teachers Say They Need and What School Psychologists Can Offer*. *School Psychology International*. SAGE Publications, Vol. 28(2): 131-147.
- Au, M.L., Sin, K.F., Fung, A. & Yan, Z. (2012) *Research report on the role of teaching assistants in supporting students with SEN in Hong Kong*. Hong Kong: HKIEd CSNSIE.
- Baines, E. & Blatchford, P. (2011) 'Children's games and playground activities in school and their role in development' In Pellegrini, A.D. (Ed.), *The Oxford Handbook of the Development of Play*. OUP: Oxford.
- Balshaw, M. (2010). Looking for some different answers about teaching assistants. *European Journal Of Special Needs Education*, 25(4), 337-338.
- Blatchford, P., Bassett, P., Brown, P. and Webster, R. (2009) 'The effect of support staff on pupil engagement and individual attention', *British Educational Research Journal* 35(5), 661-686.
- Blatchford, P., Bassett, P., Brown, P., Martin, C., Russell, A. and Webster, P. (2011) 'The impact of support staff on pupils' 'positive approaches to learning' and their academic progress', *British Educational Research Journal* 37, (3), 443-464.
- Blatchford, P., Russell, A., and Webster, R. (2012) *Reassessing the impact of teaching assistants: How research challenges practice and policy*. Abingdon, Oxon, UK: Routledge
- Clough, P., & Corbett, J. (2000). *Theories of inclusive education: a students' guide*. London: Paul Chapman Publishing Ltd.
- CSNSIE, Centre for Special Needs and Studies in Inclusive Education (2003). *Case studies for four integrated schools in Hong Kong*. Hong Kong: Hong Kong Institute of Education.
- Farrell, P. & Balshaw, M. (2002). Can teaching assistants make special education inclusive? In P. Farrell, & M. Ainscow (Eds) *Making special education inclusive*. London: David Fulton.
- Farrell, P. (2004). *Making Inclusion a Reality for All*. *School Psychology International*. SAGE Publications, Vol. 25(1): 5-19.
- Forlin, C. (2008). Education reform for inclusion in Asia: What about teacher education? In C. Forlin & M -G. J. Lian (eds). *Reform, Inclusion & teacher education: Towards a new era of special education in the Asia-Pacific Region*, pp.61-73. Abingdon, UK: Routledge.
- Forlin, C., & Lian, M. G. J. (Eds.). (2008). *Reform, inclusion and teacher education: Towards a new era of special education in the Asia-Pacific Region*. London and New York: Routledge.
- Forlin, C., & Sin, K. F. (2010). Developing support for inclusion: A professional learning approach for teachers in Hong Kong. *International Journal of Whole Schooling*, 6 (1), 7-26.
- Forlin, C., Earle, C., Loreman, T., & Sharma, U. (2011). The Sentiments, Attitudes, and Concerns about Inclusive Education Revised (SACIE-R) Scale for Measuring Pre-Service Perceptions Teachers' Perception about Inclusion. *Exceptionality Education International*, 21(3), 50-65.
- Fox, G. (2003). *A handbook for learning support assistants*. David Fulton Publishers Revised edition. London.
- Giangreco, M. F. (2010). Utilization of teacher assistants in inclusive schools: Is it the kind of help that helping is all about?. *European Journal Of Special Needs Education*, 25(4), 341-345
- Hui, L. H. (2008). Inclusive education: Implementation and partnership development between stakeholders. In J. C. Lee & L.P. Shiu (Eds.), *Developing teachers and developing schools in changing contexts*. Hong Kong: The Chinese University Press & The Hong Kong Institute of Educational Research.
- Lebeer J (1995) Conductive education and the Mediated Learning Experience Theory of Feuerstein, *European Journal of Special Needs Education*, 10 (2), 124-137.
- Lebeer, J. (Ed.) (2006), *In-clues. Clues to inclusive and cognitive education*. Antwerpen/Apeldoorn: Garant
- Lebeer, J., Birta-Szekely, N., Demeter, K., Bohács, K., Candeias, A.A., Sønnesyn, G., Partanen, P., Dawson, L. (2011), *Re-assessing the Current Assessment Practice of Children with Special Education Needs*, *School Psychology International*,
- Lebeer, J., Struyf, E., De Maeyer, S., Wilssens, M., Timbremont, B., Denys, A., Vandeveire, H. (2010), *Identifying special educational needs: putting a new framework for graded Learning Support to the test*, *European Journal of Special Needs Education*, 25 (4), 375-388.
- Legislative Council of The Hong Kong SAR. (2008). *Sub-Committee to Study Issues Relating to the Provision of Boarding Places, Senior Secondary Education and Employment Opportunities for Children with Special Educational Needs (2004–2008)*.
- Lidz, C. S. (1991). *Practitioner's guide to dynamic assessment*. New York, NY, US: Guilford Press.
- Mentis, M. T., Dunn-Bernstein, M. J., & Mentis, M. (2008). *Mediated learning : teaching, tasks, and tools to unlock cognitive potential*. Thousand Oaks, Calif. : Corwin Press.

- Moran, A., & Abbott, L. (2002). Developing inclusive schools: The pivotal role of teaching assistants in promoting inclusion in special and mainstream schools in Northern Ireland. *European Journal Of Special Needs Education*, 17(2), 161-173.
- Peters, B. & Forlin, C. (2011). Chinese children with ASD in Hong Kong (SAR): Development of inclusive practice. *Journal of Research in Special Educational Needs*, 11 (2), pp.87-98.
- Rehabilitation Advisory Committee (2007). Hong Kong Rehabilitation Programme Plan (2005–2007). Hong Kong: Health, Welfare and Food Bureau.
- Sin, K. F. (2004). Teacher education on catering for diverse learning needs. *Hong Kong Special Education Forum*, 7, 102-109.
- Sin, K. F. (2010). The practice of inclusive education in an Asian city: Hong Kong SAR. In V. Timmons and P. N. Walsh (Eds.), *A long walk to school: Global perspectives on inclusive education*, pp.63-82. The Netherlands: Sense Publisher.
- Sin, K. F., Hui, L. H. & Chui, L. C. (Ed.) (2010). *Approaches of inclusive education*, Hong Kong: China Education and Research.
- Sin, K. F., Tsang, K. W., Poon, C. Y. & Lai, C. L. (2011). Upskilling all mainstream teachers: What is viable? In C. Forlin (eds), *Teacher education for inclusion: Changing paradigms and innovative approaches*, pp.236-245. London: Routledge.
- Sin, K.F. (2005). Research report of the inclusive education implementation in Hong Kong primary schools by HKSES and HKPERA. *Hong Kong Special Education Forum*, Vol. 8, 169-170. The Special Education Society of Hong Kong Ltd.
- Sin, K.F. (2012). Report on the learning difficulties and challenges encountered by students with visual impairment in Hong Kong regular schools. HKIEd, CSNSIE and The Society for the Blind.
- Sin, K.F. (2012). Study on equal learning opportunities for students with disabilities under the integrated education system. HKIEd, CSNSIE and EOC.
- Sin, K.F. et. al. (2009). Report of the difficulties and challenges of the integrators with hearing impairment in Hong Kong schools. Hong Kong: Hong Kong Society for the Deaf.
- Sin, K.F., Hui, L. H. & Kong, M. B. (2007). Report on studying the all-round development of students with visually impairment in Hong Kong Schools. Hong Kong: Hong Kong Blind Union.
- Takala, M. (2007). The work of classroom assistants in special and mainstream education in Finland. *British Journal of Special Education*, Vol. 34, No. 1, 2007.
- Tsui, K. T., Sin, K. F. and Yu, H. (2007). Research report of the inclusive education implementation in Hong Kong primary schools, Hong Kong: HKSES and HKPERA.
- Webster, R., Blatchford, P., Bassett, P., Brown, P., Martin, C. and Russell, A. (2010) 'Double standards and first principles: Framing teaching assistant support for pupils with special educational needs', *European Journal of Special Educational Needs* 25(4), 319-336.
- Wedell, K. (2005). Points from the SENCo-ForumSupport staff roles and volunteers. *British Journal Of Special Education*, 32(1), 49.