

**IMPROVING TEACHER AWARENESS OF FINE MOTOR PROBLEMS AND  
OCCUPATIONAL THERAPY: EDUCATION WORKSHOPS FOR PRESERVICE  
TEACHERS, GENERAL EDUCATION TEACHERS AND SPECIAL EDUCATION  
TEACHERS IN CANADA**

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*Students with fine motor problems can benefit from occupational therapy. Yet not all students receive the services because of a lack of teacher awareness about the problems and the services. This study aims to evaluate a workshop designed to improve teacher awareness about fine motor problems and occupational therapy. The study involved three groups: preservice (N = 34), general education (N = 30), and special education (N = 19) teachers. Each group received a 2 ½- to 3-hour interactive workshop. They completed the Fine Motor Awareness Scale (FMAS) before, after, and one month following the workshops. Preservice teachers had the greatest learning needs on the topic. All three teacher groups showed significant improvements in the FMAS scores post-workshop, with the greatest change in the preservice teachers group, followed by the special education and then the general education teachers. Knowledge transfer principles contributed to the success of the workshops. Post-workshop evaluation showed teachers wanted more content and longer, multi-session workshops in future. Preservice, general and special education teachers need to know more about fine motor problems and occupational therapy. Knowledge-transfer workshops provided by occupational therapists can meet their learning needs and subsequently help their students to improve fine motor problems.*

*Background*

Fine motor problems impact many aspects of a student's life (Wehrmann, Chiu, Reid, & Sinclair, 2006). The problems often affect printing and writing, making it difficult for the students to form letters, write on the line, and keep proper spacing between letters and words (Bonney, 1992; Cornhill & Case-Smith, 1996). These students often have problems with arranging objects in their workspace and losing their tools for working in class. Organizing tasks, such as sequencing steps within a task is difficult for these students, and they are slow in keeping pace with the class work. McHale & Cermak (1992) found 30-60% of activities in each schoolday requires the use of fine motor skills. This represents a significant challenge to students who experience difficulty with fine motor skills because of a developmental delay or other medical problems. Everyday at school, they struggle with common classroom activities that require fine motor competence such as cutting with scissors, drawing, colouring, using rulers, applying glue, and folding paper. When performing these tasks, these students are often seen as being sloppy with their work, unable to work independently, or lazy in getting the task completed. The same underlying problems affect their self-care abilities such as tying shoelaces and doing buttons and zippers. These students may not perform well in gym classes that need gross motor competence. When experiencing daily frustration, their self-esteem may be affected, as well as their ability to interact and socialize with their peers. If these students do not receive early intervention, the fine motor difficulties can persist into adolescence. The unresolved problem subsequently leads to secondary mental health and educational issues resulting in poor social competence, academic problems, behavioural problems, and low self-esteem (Miller, Missiuna, Macnab, Malloy-Miller, & Polatajko, 2001).

A study of the Occupational Therapy School-based Consultation (OTSBC) service (Reid, Chiu, Sinclair, & Wehrmann, 2006) showed that an increase in teacher awareness can improve students' fine motor problems. In the study, teachers worked in collaboration with occupational therapists to carry out strategies to help students improve their classroom performance. The results supported that when teachers had an improved awareness, their students' performance in the classroom also improved and the teachers were more satisfied with their student's performance. Similar findings were reported in a review of research, showing occupational therapy consultation to teachers can improve students' performance in various functional areas (Kemmis & Dunn, 1996).

In Canada, teachers, parents, educational assistants and other professionals in the school receive consultation from occupational therapists about a student's fine motor performance. However, not all students who need help receive it in a timely and effective manner. This gap occurs when teachers, principals, and school personnel are unaware of how fine motor difficulties impact a student's classroom performance and what occupational therapy can do to help (Hammerschmidt & Sudsawad, 2004). A lack of awareness hinders referrals to occupational therapy and may result in the student receiving services too late or not at all. The delay or lack of service can lead to further difficulty for the student as they progress through the school system (Chiu, Reid, Sinclair, & Wehrmann, 2002). In the OTSBC study, teachers, parents, and occupational therapists who attended the focus groups made the following recommendations to address the concern (Reid et al., 2006): a) to improve teacher awareness of fine motor problems and occupational therapy, b) to provide early intervention to identify and treat students with fine motor problems, and c) to promote awareness to teachers, parents, and policy makers of how occupational therapy can help students. They identified teacher awareness as the top priority. This study attempted to follow up with the recommendations by developing education workshops for improving teacher awareness.

The purpose of this study was twofold: a) to test the hypothesis that education workshops would increase *teacher awareness* and b) to explore what contributed to the success of the workshops and identify areas for improvements. *Teacher awareness* refers to the teacher's knowledge of fine motor problems experienced by their students and their knowledge of occupational therapy service for these students.

We have applied the knowledge transfer approach to design the workshops for improving teacher awareness. Knowledge transfer (or knowledge translation) involves disseminating research knowledge to the appropriate knowledge users (Jacobson, Butterill, & Goering, 2003). Knowledge users progress through four stages: from awareness to agreement, to adoption and finally to adherence (Davis et al., 2003). Lavis and Ross (2004) describe five principles that are important for successful dissemination: a) to begin with a clear message from the literature, b) to target the message to a specific population, c) to identify and address the barriers to knowledge translation, d) to deliver the message through a credible messenger, and e) to evaluate the success of the knowledge translation attempt, which is the most important principle. We have applied these principles to develop an interactive, education workshop provided by occupational therapists to teachers. The workshops have been designed to increase teacher awareness of fine motor problems and eventually gain adherence of the knowledge in classroom practice.

### **Method**

This study used a mixed-methods design. Pre- and post-workshop measures were collected to evaluate the impact of the workshops on teacher awareness. Participants completed open-ended questions to identify what contributed to the workshop success and suggestions for improvement.

#### *Recruitment and Study Sample*

Unique to this study is the inclusion of three teacher groups: preservice teachers, general education teachers, and special education teachers. The first group, preservice teachers, was recruited from the Faculty of Education of the York University, Toronto. They were offered the workshop as a class in a course and given the choice of attending the workshop or completing an assignment to minimize coercion. The second group was general education teachers who taught junior kindergarten to grade 2 in the Toronto District School Board (TDSB). The TDSB Coordinator of Physical/Occupational Therapy distributed a flyer to the teachers at various schools within the Greater Toronto Area. The workshop was provided in one of the TDSB schools. The third group was special education teachers in the Toronto Catholic District School Board (TCDSB). In the TCDSB, Assessment and Programming Teachers (APTs) provide assessment and programming services for students with special needs within

various classroom settings and provide consultation to all special education teachers throughout TCDSB. The Superintendent of Special Services at TCDSB distributed the flyer to all special education teachers about the workshop, which was provided at a regular meeting of the APTs.

#### *Workshop Description*

Three workshops, one for each teacher group, were provided between January 2005 and April 2005. Two experienced occupational therapists (SW and GS) provided the workshops with the help of a Masters occupational therapy student (MH). The first workshop provided to the preservice teachers was 3 hours long and involved a dyadic presentation, demonstrations, task experiences, and a display of tools and equipment. The content of the presentation included an introduction to fine motor skills, occupational therapy principles and techniques to facilitate printing and writing. Participants were provided with a *manipulative baggie* and handout. The manipulative baggie was a small package of different manipulative and interactive materials to provide the teachers with an opportunity for experiential learning during the workshops. Suggested activities for students with FM problems were provided. The second and third workshops for the general education and special education teachers were slightly modified based on the feedback from the first workshop. These two workshops were shortened to 2 ½ hours. The content was condensed, allowing more frequent breaks and more time for questions.

#### *Data collection*

Written consent was obtained before each workshop. Participants completed a demographic questionnaire and the Fine Motor Awareness Scale (FMAS) before the workshop. After each workshop, participants completed the FMAS again and an evaluation form. One month after the workshop, the FMAS was mailed to the participants. Pre- and post-workshop FMAS change score was tested using *t*-test. Bonferroni adjustment was made for multiple comparisons. The Statistical Package for the Social Sciences (SPSS; version 12) was used to analyze the data. The open-ended questions collected in the evaluation form were analyzed to identify salient themes. This study received approvals from the ethics review boards of the University of Toronto, York University, COTA Health, TDSB and TCDSB.

#### *Measurement Instrument*

The FMAS was developed in this study with a pilot test involving 14 elementary schoolteachers from the TDSB. The FMAS uses a three-point rating scale (2-Yes for sure, 1-Yes but Area for Growth, 0-Area for Growth). The 16-item FMAS has two subscales (See Appendix). The Fine Motor Subscale measures the teacher's perceived knowledge about the special needs of a student with fine motor problems. The items were developed based on two sections of the International Classification of Functioning, Disability and Health Guidelines for Children and Youth (World-Health-Organization, 2001): the Activities and Participation section and Environmental Factors section. The Occupational Therapy Subscale measures teacher awareness of the role and benefit of occupational therapy services. The Cronbach's alpha of the FMAS was 0.84 in this study.

#### *Results*

Ninety-three participants attended the workshops, with 34 preservice teachers, 39 general education teachers, and 20 special education teachers. Some participants did not complete the pre-workshop measure because they were late. The numbers of completed pre- and post-workshop FMAS are as follows: preservice teachers ( $N = 34$ ), general education teachers ( $N = 30$ ), and special education teachers ( $N = 19$ ). The return rate of the follow-up FMAS was poor, with only 29 out of the 93 participants returning it.

Most participants were female (Table 1). The preservice teachers were younger (70.6% 20 to 39 years old), and 88% of them were in their first year program. The general education teachers had an average of 13 years ( $SD = 8$ ) of teaching experience and taught students mostly in kindergarten or primary grades (87%). The special education teachers had an average of 25 years ( $SD = 5$ ) of teaching experience, were mostly APTs (74%), and taught students of different age groups in special education classrooms. With respect to the experience with children with special needs, many preservice teachers had the experience (65%), while almost all general education teachers (97%) and all special education teachers (100%) had the experience.

**Table 1**  
**Characteristics of Workshop Participants**

Characteristics	1.Preservice teachers (N = 34)	2.General education teachers (N = 30)	3.Special education teachers (N = 19)
Gender			
Female	59%	97%	100%
Male	35%	3%	0%
Missing	6%	0%	0%
Age group (years)			
20-29	38%	10%	0%
30-39	32%	17%	0%
40-49	27%	40%	42%
>50	0%	30%	47%
Missing	3%	3%	11%
Current grades taught*			
Kindergarten	N/A	37%	11%
Primary grades		50%	0%
APT		0%	74%
Other		13%	15%
Current teaching area			
Special Education	N/A	40%	89%
General education		47%	0%
Missing		13%	11%
Experience with spec. needs children			
Yes	65%	97%	100%
No	35%	3%	0%

\* Kindergarten = JK, SK, K; Primary grades = 1-6; APT = Assessment and Programming Teachers; Other = grade 7 or above and special classes

#### *Pre-workshop awareness – learning needs about the topic*

The pre-workshop awareness measure reflected the learning needs of the topic. The preservice teachers were more in need of the learning. Figure 1 shows that they had the lowest pre-workshop FMAS score ( $Mean = 0.45$ ;  $SD = .39$ ), followed by the special education teachers ( $Mean = 0.92$ ;  $SD = .28$ ) and general education teachers ( $Mean = 0.97$ ;  $SD = .37$ ). A lower FMAS score indicates a lower awareness.

The preservice teachers had the greatest learning need for awareness improvement. They rated *I know when and how to initiate a referral to occupational therapy services* as the top area for growth (85.3%). *I know how the problems may affect the student's ability to organize tasks and materials in the classroom* ranked second (73.5% as an area for growth), same as *I know how the problems may make it difficult for the student to pay attention, follow directions, or remain on task* (73.5% as an area for growth), and *I know how to collaborate with occupational therapists in helping the student* (73.5% as an area for growth).

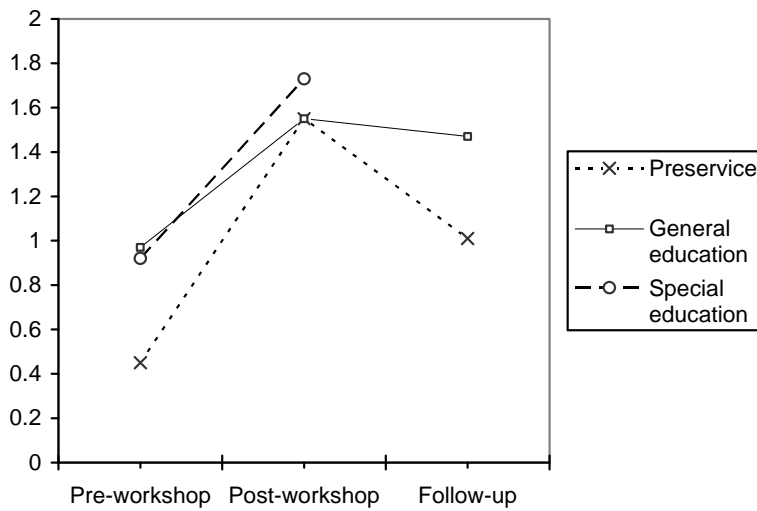
The general education teachers rated the following two items as the most needed area for growth: *I know the key factors that lead to effective changes of the students* (63.3% as an area for growth), and *I can explain to other colleagues about the special needs of students with fine motor problems* (63.3% as an area for growth). *I know how to collaborate with occupational therapists in helping the student* ranked third (43.3% as an area for growth).

Even though the special education teachers had the lowest need for awareness improvement, about half of them rated the following three items as an area of growth: *I know how to collaborate with occupational therapists in helping the student* (47.4% as an area for growth), *I know the key factors that lead to effective changes of the students* (47.4% as an area for growth), and *I can explain to other colleagues about the special needs of students with fine motor problems* (47.4% as an area for growth).

#### *Post-workshop awareness – improvement of knowledge*

The post-workshop scores measured the changes in teacher awareness after the workshops. The results showed all three groups had a significant change post-workshop (Table 2). The preservice teachers had the greatest improvement in awareness.

**Figure 1**  
Pre- and Post-workshop FMAS Scores by Teacher Groups



**Table 2**  
Mean FMAS change scores by teacher groups

	Mean FMAS change score	df	p
Preservice teachers	1.13	33	< .000
General education teachers	0.55	29	<.000
Special education teachers	0.82	18	<.000

The preservice teachers had the greatest increase in awareness post workshop in the item *I know when and how to initiate a referral to occupational therapy services* (reduced from 85.3% to 8.8% as an area for growth). *I know how the problems may affect the student's ability to organize tasks and materials in the classroom* ranked the second (reduced from 73.5% to 0%). *I know how the problems may make it difficult for the student to pay attention, follow directions, or remain on task* ranked the third (reduced from 73.5% to 2.9% as an area for growth).

The general education teachers had the greatest awareness improvement in *I can explain to other colleagues about the special needs of students with fine motor problems* (decreased from 63.3% to 0%). *I know the key factors that lead to effective changes of the students* ranked second (decreased from 63.3% to 58.2%). *I know how some occupational therapy strategies for use in the classroom to improve the problems* ranked third (reduced from 40% to 32.3% as an area for growth).

The special education teachers had the greatest improvement of awareness in the following two items: *I know how the problems may make it difficult for the student to pay attention, follow directions, or remain on task* (reduced from 47.4% to 0% as an area for growth), and *I can explain to other colleagues about the special needs of students with fine motor problems* (reduced from 47.4% to 0%). *I know the key factors that lead to effective changes of the students* ranked third (reduced from 47.4% to 5% as an area of growth).

#### *Follow-up awareness – adherence to the knowledge gained*

Only about a quarter of the preservice teachers ( $N = 9$ ) and half of the general education teachers ( $N = 19$ ) returned the follow-up questionnaire. Figure 1 shows the FMAS scores of the preservice teachers decreased by 0.54 and that of the general education teachers by 0.08. Although there was a decline in FMAS scores, the follow-up mean scores remained higher than the pre-workshop scores in both groups. Because only one special education teacher returned the follow-up questionnaires, the result is not reported here.

*Success Factors and Improvement Suggestions*

The post-workshop evaluation questionnaire asked the participants to comment on what they liked about the workshops and how to improve them. The preservice teachers attended the first workshop which was three hours long. They felt the workshop was informative and organized. Specifically, they liked the knowledge to distinguish between *lazy* and *fine motor problems*, the visual displays, the *baggies*, and the techniques in how to teach printing and writing skills. They felt the presenters were knowledgeable and *used expertise to talk*. When asked to provide suggestions for improvements, they gave the following comments: a) to provide more audience interaction and practices with less direct teaching or lecturing, b) to have more time for questions and pose questions to audience, and c) do not provide too much information and provide short breaks. The workshop was modified based on these comments and the presenters' observations. The revised workshop was shortened to 2 ½ hours long. Less content was covered, with more interaction with attendees and more case discussions and opportunities for questions.

The general education and special education teachers received the revised workshop. They were satisfied with the workshops and provided overwhelmingly positive comments about the informative content, the practice materials, the interactive activities, and the professional, knowledgeable presenters.

First, the teachers liked the content of the workshops. For example, a general education teacher liked the *focus on developmental appropriateness and foundations for writing skills*. They liked the content about the *student readiness for printing* and because it *pointed out common mistakes teachers make*. Another general education teacher wrote, *Great practical ideas/suggestions for teaching printing etc. in classroom*. For the special education teachers, they liked the *progression through each stage, i.e., identify needs, remediation, evaluation activities* and the *strategies and examples shown to improve fine motor (especially writing)*. Another special education teacher commented that the workshop was *very informative and well organized, affirmed my feeling that students are not given enough time to learn or practice printing or writing skills*.

Second, the teachers liked the workshop formats including the materials, hands-on activities, and interactive practices. The general education teachers were pleased to have the *manipulatives and direct involvement, baggies and handouts* and *writing aids*. Several special education teachers wrote they liked the handouts and references. They *liked working with materials; hands on practical stuff; demonstration of strategies; and a mix of overheads and manipulatives*. Finally, the teachers were pleased with the way the presenters delivered the workshops. They felt that the presenters were *knowledgeable presenters; very skilled; and great, professional*. They were satisfied because the presenters *answered lots of questions, and were well prepared, and patient, organized, and convincing*.

Suggestions for improvements were provided by the participants. Three main themes were identified. First, special education teachers wanted to cover more about organizational skills. They wrote *more about scissor use, organization and some gross motor information; less time on printing and writing; and longer time for presentation*, and felt that they *ran out of time for organization*. Second, the participants wanted more workshops for more people. The general education teachers wrote: *Give more workshops; more in-services in future as refreshers; repeat at the school/family level; and gear to special education and JK students as well*. A special education teacher wrote: *Would benefit primary/junior/other teachers*. Another one asked: *Have you considered making available a CD or tape of presentation?* A third special education teacher wrote: *More exposure of this to all teachers and parents*. Finally, the teachers suggested improvements on the logistics and formats of the workshops. The workshop formats can be changed to *several shorter sessions; full day workshops; and workshops in the fall (start of school year)*, suggested by the general education teachers. On the contrary, some special education teachers preferred shorter workshops. Logistical improvements can be made in the set up of the workshop and by providing handouts of slides to take notes on.

**Discussion and Practice Implications**

Preservice teachers, general education teachers, and special education teachers need to know more about fine motor problems and occupational therapy. This study has shown knowledge-transfer workshops provided by occupational therapists can meet their learning needs. All three groups had low FMAS scores before the workshops, supporting their learning need on the topic. All teacher groups also had significant improvements in the FMAS scores post-workshop. The teachers liked the workshops' content and format, which could be contributed to the knowledge transfer principles.

Evaluation showed the teachers wanted more workshops for more people, confirming the need for improving teacher awareness about fine motor problems and occupational therapy.

The success of the workshops could be contributed to the knowledge transfer principles. For example, the participants appreciated the multifaceted and interactive format to present the knowledge. The strengths of the presenters were described as being professional, responsive, and knowledgeable, implying the participants felt the knowledge messengers were credible and respectable. Knowledge transfer does not stop when evaluation ends. In the framework of knowledge transfer proposed by Tugwell and colleagues (2006), the final step is the sharing of knowledge transfer strategies performed and evaluated. Writing this paper is an attempt to complete this final step.

Before the discussion, we would like to address several study limitations. First, there was no control group to compare with. However, the significant improvements of FMAS scores and the positive evaluation comments support the benefits of the workshops. The second limitation was the use of a convenience sample. Although the findings may not be generalizable to all preservice and service teachers in Canada, they represented the teacher population in the Greater Toronto Area. Third, the low response rates of the follow-up questionnaires limited the evaluation of awareness adherence. The available data showed despite the decline in perceived awareness for the two workshops, the follow-up perceived awareness levels were higher than the baseline implying the KT workshop was able to raise and maintain teacher awareness. Future studies to examine the issues are indicated.

We will discuss the practice implications with a diverse readership in mind: occupational therapists who plan to provide workshops for teachers, faculty members who design curricular for preservice teachers, and in-service coordinators of school boards and special education teacher groups. A good practice in knowledge transfer planning is to understand the target knowledge users. In this study, the learning needs were different among the three teacher groups. The implications for future workshops for these three groups are discussed separately.

#### *Preservice teachers*

Preservice teachers have a greater need for learning about fine motor problems. In this study, the pre-workshop FMAS showed they wanted to learn more about how fine motor problems affected students and how to refer to occupational therapy services. Another study of preservice teachers (Hadadian & Chiang, 2007) found taking courses in special education promoted preservice teachers to accept inclusion of students with special needs in general education. The authors recommended more programs for preparing preservice general education teachers. Hence, a workshop designed for the preservice teachers can focus on understanding the special needs of students with fine motor problems, identifying the fine motor problems, and referring the students to occupational therapy. The aim is to prepare them to recognize fine motor problems among their students and to act upon the problems. More advanced topics such as medical explanations of the problems and occupational therapy strategies to improve the problems may be provided in advanced courses for the preservice teachers.

#### *General education*

General education teachers in this study had an average of 10 years of teaching experiences. Many had experience with children with special needs. Their experiences have provided them with real-life pictures of the fine motor problems of their students. They had a better awareness of the problems than preservice teachers. Hence, their learning needs have shifted to a need for understanding how they can promote changes, explain to colleagues, and collaborate with occupational therapists. Proposed workshop content can focus less on describing the problems, but more on explaining the theories behind fine motor development and practical suggestions for teaching printing in classroom. The aim is to provide the teachers with a tool to assess the readiness of the students for printing and to help the students by applying occupational therapy strategies or collaborating with a therapist. An in-service workshop similar to the one provided in this study would be ideal for improving general awareness. Advanced workshops might be offered to general education teachers who have students in need of occupational therapy services. The topic can focus on understanding the roles of both teachers and occupational therapists in a consultative model. Case examples would provide an excellent format for inviting teacher-occupational therapist dyads to co-present their experiences.

#### *Special education*

Special education teachers in this study had an average of 25 years of teaching experience. Many had further specialization as APTs in their school board. With the many years of experiences with children

with special needs, the special education teachers had the least learning needs compared with the other two groups. The special education teachers still expressed a need to learn more. Instead of handwriting tasks, they wanted to learn more about what makes it difficult for the students to pay attention and follow directions. They also wanted to know how to explain to their colleagues about the student's problems, and what factors affected changes of the students. The workshop provided in this study can be provided as an overview of the topic for special education teachers. Special education teachers have a role in educating parents and other teachers about the student's needs. Advanced workshops can address these needs by providing tools for them to transfer the knowledge to other teachers and parents. A possible format is a series of workshops involving small groups of special education teachers to develop a knowledge transfer package to a particular knowledge user group. A broader range of topics such as organizational problems, attention problems, emotional reactions, and so forth could be more adequately covered.

### Conclusion

Preservice teachers, general education and special education teachers need to know more about fine motor problems and occupational therapy. Students with fine motor problems experience significant challenges in their school life such as printing, writing, cutting with scissors, doing buttons and so on. Occupational therapists can help them and their teachers to improve the problems. Yet not all students receive occupational therapy services because of a lack of teacher awareness about the problems and the services. This study showed that workshops provided by occupational therapists can meet the learning needs of the schoolteachers. Teachers had improved their awareness, and they wanted more content and longer, multi-session workshops in future. As a teacher wrote, *Teachers need to hear this!* Knowledge transfer principles contributed to the success of the workshops. With increased awareness, teachers can identify earlier students in needs of help earlier. Early intervention can prevent the student from experiencing further difficulty as they progress through the school system. With the collaboration between schoolteachers and occupational therapists, these students can perform better in the classroom, become more confident, and be happier children.

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### Appendix Fine Motor Awareness Scale

Please complete the following items.

Yes for sure	Please check 'yes for sure' if you have <b>sufficient</b> knowledge and skills in the area. There may be some statements for which you are not ready to check 'yes for sure'.
Yes but A/G (Area for Growth)	If you feel you have some knowledge in the area but would like to know more, please check 'Yes but Area for Growth'.
Area for Growth	Please check if you <b>need</b> or <b>want</b> to enhance your knowledge and skills in the area.
N/A (Not Applicable)	The statement describes an area that is not applicable to you.

Items	Yes sure	for	Yes but A/G	A/G	N/A
A. I can identify the special needs of a student with fine motor problems					
1. I know how the problems would affect the students printing and/or writing speed.	2		1	0	0
2. I know how the problems can cause difficulties with copying from the board.	2		1	0	0
3. I know how the problems may affect the student's ability to organize tasks and materials in the classroom.	2		1	0	0
4. I know how the problems can affect a student's ability to use scissors, colour, or fold paper.	2		1	0	0
5. I know how the problems would make a student's work look sloppy.	2		1	0	0
6. I know how the problems may make it difficult for the student to pay attention, follow directions, or remain on task.	2		1	0	0
7. I know how a student with the problems may have trouble doing up buttons and shoelaces.	2		1	0	0
8. I know some students with the problems may have difficulties in physical education classes or in the playground with activities that require gross motor coordination.	2		1	0	0
9. I know how the problems affect the student's printing and/or writing.	2		1	0	0
B. I ensure appropriate help is provided to students with fine motor problems					
10. I know when and how to initiate a referral to occupational therapy services.	2		1	0	0
11. I know what benefits the students may experience following occupational therapy.	2		1	0	0
12. I know some occupational therapy strategies for use in the classroom to improve the problems.	2		1	0	0
13. I know how to collaborate with occupational therapists in helping the student.	2		1	0	0
14. I know the key factors that lead to effective changes of the students.	2		1	0	0
15. I can explain to other colleagues about the special needs of students with fine motor problems.	2		1	0	0
16. I act in a timely manner to ensure early identification and intervention for students with fine motor problems.	2		1	0	0