Supporting secondary school students with language impairment

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When language impairment (LI) persists into adolescence, speech pathologists are often challenged by how to best support this clinical population. Adolescents with LI require functional and sustainable services. This may necessitate creativity on behalf of the speech pathologist, and the adoption of a range of intervention approaches. This article provides an overview of strategy-based approaches that may be adopted by speech pathologists when supporting adolescent clients' oral and written language. Specific examples are provided, and a caseload management approach that involves inter-professional collaboration and consultancy is also discussed.

The partnership between speech pathologists (SPs) and adolescent clients with language impairment (LI) can be as challenging as it is rewarding. Despite our awareness that there is a prevalence rate of up to 16% (McLeod & McKinnon, 2007), providing effective services to this clinical group can be hampered by a lack of adequate resources, client resistance, and other service delivery constraints. Mental health literature informs us that positive achievements at school, the development of social competencies and a sense of belonging and connectedness with adults and peers are known to be primary protective factors in the development of positive mental health and well-being during adolescence (Fuller, 2001). However, young people with LI are known to be at risk for academic, social, emotional, and behavioural problems (Law, Rush, Schoon, & Parsons, 2009). Secondary school students with LI have particular difficulties with vocabulary development, written expression and reading comprehension (Montgomery & Levine, 1995), highlighting the need for active speech pathology support for these adolescents. As a clinical group, though, adolescents with LI continue to be significantly under-serviced (Hollands, van Kraayenoord, & McMahon, 2005).

Drawing on a body of literature describing effective interventions for supporting secondary school students with LI, this paper will discuss how SPs can make informed decisions about client management approaches, in order to provide functional and sustainable services to their adolescent clients. First we present an overview of the literature on strategy-based interventions aimed at enhancing vocabulary development, written expression,

and reading comprehension, with some examples of practical applications. This is followed by a discussion of case-management approaches involving inter-professional collaborations and consultations.

Strategy-based language interventions

From an intervention perspective, a *strategy-based approach* involves explicit guidance in planning and performing a task and evaluating that performance (Lenz, Ellis, & Scanlon, 1996). Strategy-based approaches may incorporate the development of metacognitive skills (thinking about thinking) and metalinguistic skills (understanding and reflecting about language), both of which are important at the secondary school academic level. Strategy-based interventions for supporting secondary school students with additional learning needs, including those with LI, have traditionally been described within both speech pathology and learning disabilities literature. In order to research the evidence-base for such approaches, we recently carried out a systematic review to identify randomised controlled trials (RCTs) for language interventions that specifically targeted adolescents with spoken and/or written LI (Starling, Munro, & Togher, 2008). Only 20 randomised control studies matching the search criteria were evident within the speech pathology and learning disabilities literature.

While it is beyond the scope of the current paper to provide a full overview of the results of this systematic review, the use of strategy-based approaches for supporting adolescents' written expression and reading comprehension was consistently identified within these 20 RCTs. Therefore, the current paper will present an overview of strategy-based approaches for these two areas. In addition, we provide a summary of strategy-based approaches for supporting vocabulary development. While no RCTs were found within our systematic review for supporting vocabulary development during the adolescent years, we contend that targeting vocabulary during adolescence is important for two reasons. First, it is well known that vocabulary knowledge is crucial for reading comprehension and written expression and second, adolescents with LI present with vocabulary deficits in terms of both the number of words known and the depth of their vocabulary knowledge (Stothard, Snowling, Bishop, Chipchase, & Kaplan, 1998). We therefore present an overview of strategy-based approaches for vocabulary development, written expression, and reading comprehension that SPs may use to assist their work with adolescent clients.

Enhancing adolescents' vocabulary development

Adolescents with LI require vocabulary enrichment that has a functional and curriculum-specific purpose (Ehren, 2002). There is continuous introduction of domain-specific academic vocabulary across the secondary school curriculum (Baumann & Graves, 2010). This creates a persistent challenge for adolescents with LI, as the amount and complexity of the unfamiliar vocabulary can interfere with their access to curricular information across subjects. To illustrate, Anderson and Nagy (1991) reported that secondary school students encounter up to 55 previously unknown words in a typical 1000-word text. It is of course unrealistic to target all new words in a therapeutic intervention. However, education researchers have advised teachers that directly teaching students 10 new words a week could make a significant contribution to all students' language and literacy abilities (Beck, McKeown, & Lucan, 2002). This recommendation also provides useful guidance for SPs in their approach to addressing the vocabulary needs of secondary school students with LI.

To facilitate direct vocabulary instruction, Beck and colleagues (2002) introduced the "three tier" organisational structure for prioritising vocabulary. Tier 1 words consist of basic, everyday words that rarely have to be taught directly, such as "fish" and "eat". Tier 2 words are relatively high frequency words that are found across a variety of knowledge domains, such as "inhabitants" and "circular". These are words that are "less likely to be learned independently" (Beck et al., p. 9) but have an important role in the development of literacy. Tier 3 words have a low frequency use and are limited to specific knowledge domains, such as "photosynthesis" and "lachrymose".

Beck et al. (2002) recommended that supportive interventions at the secondary education level should prioritise Tier 2 words. Vocabulary instruction at this level would then be directed at the words and terminology that teachers have identified as being of the highest importance for understanding newly introduced topics. SPs could utilise this approach to vocabulary instruction during professional collaborations with secondary school teachers. In this way, the students with poor language skills will have increased opportunities to access across-subject curriculum content and improve their overall receptive and expressive language abilities. SPs can also draw teachers' attention to the need for developing students' literate lexicon (Nippold, 2002). This involves the direct teaching of technical terminology, meta-linguistic and meta-cognitive vocabulary (such as instructional terminology, figures of speech and definition formulation) and the ability to use morphological deconstruction and contextual abstraction to infer word meanings from written texts.

Complementing direct vocabulary instruction, Marzano and Pickering (2006) suggested that the development of vocabulary knowledge operates along a continuum from no knowledge, through context-bound knowledge to, ultimately, a "rich knowledge" of a word. These authors outline a step-by-step program guiding students' exposure to, and learning of, key vocabulary, to a point where students can demonstrate sound knowledge and use of the words in their oral and written expression. In combination, direct vocabulary instruction and vocabulary knowledge development provide SPs with practical guidance on the selection of relevant vocabulary for inclusion in interventions, as well as offering a structured framework to guide lexical instruction. Encouragingly, there are studies currently underway in the field of speech pathology that are demonstrating the effectiveness of direct vocabulary instruction for students with LI at the secondary education level (e.g., Joffe, 2006; Wilson, Nash, & Earl, 2010).

Enhancing adolescents' written expression

Written language is central to all aspects of secondary classroom learning, with secondary school students needing to show particular competence in both written expression and reading comprehension. Writing is the functional medium that students are most often expected to use in order to convey their ideas and knowledge. Adolescents with LI struggle with both the form and content of their written expression (Stothard et al., 1998).

To address deficits in written expression, Wong (1997) suggested the use of interactive verbal scaffolding and genre-specific visual organisational structures. The foci of three RCTs reported by Wong involved training secondary students with written LI in strategies that targeted planning, writing and revision across different genre-specific written compositions. Specific strategies included think-aloud planning, visual planners (graphic organisers) and editing conferences (students and teachers working together on text editing). Students who had received these written language supports showed significant improvements in the quality of their written compositions, including improved clarity and thematic salience. SPs may also like to consider the work of Schumaker and Deshler (2003). These authors describe a series of non-randomised comparison trials involving strategy-based instructional programs for sentence and paragraph writing, error monitoring, spell checking and theme writing. Results indicated that the students receiving instruction in these writing strategies were able to master the strategies, as well as generalise the use of the strategies to novel tasks.

Enhancing adolescents' reading comprehension

Another important aspect of written language in the secondary school environment is reading comprehension. It is known that adolescents with LI can present with ongoing reading comprehension difficulties (Snowling, Bishop, & Stothard, 2000). Secondary students need to be able to interpret, analyse and act on the content of a wide range of printed and electronic texts, such as text books, topic information sheets, worksheets, assignment instructions and test papers. The challenge for SPs working with these young people is how to target reading comprehension in a functional way, with the potential for newly learned strategies to be directly applicable to students' academic needs.

Strategy-based interventions may offer some direction for supporting reading comprehension (Gersten, Fuchs, Williams, & Baker, 2001). For example, there is evidence to support the use of summarisation techniques and visual organisation strategies for reading comprehension interventions at the secondary education level. Gajira and Salvia (1992) used text summarisation strategies in an RCT involving mainstream secondary school students with language-based learning difficulties. Strategies cited included moving from micro- (facts and details) to macro- ("big picture") structuring of texts, deletion of unnecessary information, and the formulation of topic sentences. Similarly Malone and Mastropieri (1991) utilised text summarising strategies in an RCT, and found merit in the addition of a student self-monitoring component involving the use of a step-by-step visual checklist. Results from both of these studies indicated significant improvements in reading

comprehension for students who received these types of strategy-based interventions.

Reading comprehension also involves understanding inferential and non-literal information. Secondary students with LI often have difficulties with the comprehension of inferred meaning in both oral and written language (Mastropieri, Scruggs, & Graetz, 2003). Strategies for explicit instruction on inferential written text comprehension were found to be effective in an RCT comparing two question-and-answer instructional approaches for supporting upper-primary students with poor reading comprehension abilities (Graham & Wong, 1993). Future research could look at adapting these strategies for use with secondary student populations, including those with LI, in order to address this gap in the literature.

In summary, these strategy-based interventions for vocabulary development, written expression and reading comprehension provide opportunities for the adolescent client to learn personally and academically useful skills that can also facilitate independent learning across different academic disciplines and curriculum content. To consolidate this learning, SPs could share these strategy-based approaches with the parents and teachers of adolescents with LI as well as coach them in their use. This would support the generalisation of targeted strategy-based approaches for individuals with LI. This next section now discusses how SPs can support whole populations of adolescents with LI, through inter-professional collaborations and consultations.

Collaborations and consultations
Classroom collaborations

There is growing support for SPs to take on collaborative and consultative roles as key aspects of managing caseloads of adolescents with LI (Ehren, 2002; Law et al., 2002). Providing more traditional one-on-one services for individual students both within and outside of mainstream secondary schools is often not a feasible option for SPs. Apart from time and resource challenges, there may be a disinclination to adopt traditional intervention approaches with secondary school students for such reasons as fear of peer group stigmatisation, client indifference, timetabling and funding constraints, or a perceived intractability of communication impairments in this population (Dohan & Schulz, 1998). As an alternate approach, cross-professional collaboration on an ongoing basis is consistently identified as a critical feature of effective interagency service delivery by SPs (Gascoigne, 2008).

Secondary school classrooms provide a language-rich environment for students' learning. The concept of universal curriculum accessibility is based on the notion that curriculum content should be presented in such a way that all students have the potential for success (NSW Department of Education & Training, 2003). As previously suggested, secondary school students with LI are likely to be disadvantaged by the degree and complexity of the language presented in classrooms. Making across-subject curricular content more accessible to students with LI has the potential to reduce the negative effects of disengagement and failure for these students, thereby increasing the opportunities for their academic engagement and achievement.

Collaborations between teachers and SPs are reported to increase the exchange of ideas and mutual acknowledgement of expertise between the two professions, resulting in strong inter-professional relationships

(Throneburg, Calvert, Sturm, Paramboukas, & Paul, 2000). Secondary school teachers are the experts in acquiring and disseminating curricular information; they can provide topical information regarding curricular goals and content, ensuring an intervention has immediate academic relevance and providing opportunities for practice and generalisation. SPs, on the other hand, have expertise in the expression and reception of information through the use of language. They can provide specific information regarding students' communication and learning support needs, as well as training in general language skills strategies and accommodations that are applicable to whole class teaching, across different teaching approaches, academic levels and subject content. This inclusive approach to supporting secondary school students with LI has particular value in situations where secondary teachers are challenged in finding the extra time needed to support students individually.

There are many language modifications and accommodations that SPs can include in their collaborations with secondary teachers. Examples are: reducing the complexity of teacher-generated texts, such as assignment instructions, into more accessible language forms; the creation of a range of visual planners, organisers and text deconstruction aids for ready reference; assisting students with identifying appropriate key words for internet research tasks; and the development of memory and active study and revision strategies (Simon, 1998). For further information about these types of language modifications, accommodations and strategy-based approaches, readers are referred to Brent and Millgate-Smith (2008), Brent, Gough, and Robinson (2001), Larson and McKinley (2003), and Tattershall (2002), who have collectively provided comprehensive descriptive overviews of secondary curriculum-based SP interventions.

Inter-professional consultancy

Due to the impact of LI on adolescents' social, behavioural and emotional states, SPs may need to consult with other professionals and services within, or associated with, the secondary school environment. These may be welfare teachers, adolescent counsellors, behaviour support teams, social services and juvenile justice organisations. Intervention approaches can include information sessions for professional groups, as well as the development of awareness-raising resources. For example, there are recent resource developments in the United Kingdom, accessible on-line, that focus on raising the awareness of education and mental health professionals in the identification and impact of LI during adolescence (AFASIC Scotland, 2007; Joffe, 2010; The Communication Trust, 2009). In addition, SPs can refer to a suite of resources developed to inform those working with young people with communication needs in the youth justice system (The Communication Trust, 2010). As well as identifying the population of adolescents with LI, these resources provide valuable guidance on ways to accommodate their communication needs. Examples include simplifying complex language, speaking more slowly with repetition and rephrasing, and providing alerts for the need to process and retain important information.

Another consultative approach for SPs could be assisting in the development and/or modification of health and education resources that are produced for adolescent populations. For example, SPs can provide suggestions about how to modify information presented via websites and leaflets, such as the increased use of graphics and headings, audio clips to supplement written text and the simplification

of language and definitions of complex terminology. In this way important resources such as mental health information leaflets can be made more accessible to young people with LI. Other types of language modifications can also be offered for group and individual program materials, such as breaking down instructions, and the increased use of demonstrations and "hands-on" interactive activities. These types of initiatives directly address the information processing needs of many young people with language and literacy difficulties and how they access resources across education, health, mental health and social service contexts. Language accommodations will also increase the possibility that these young people will engage with essential services and programs, such as mental health and vocational counselling.

Meeting the challenge

In summary, adolescents with LI are significantly at risk of having negative and challenging life experiences. As part of a professional duty of care to this clinical population, SPs need to provide supports and services across a range of contexts. However, there are many obstacles to effective service delivery, thereby necessitating creativity and flexibility in clinical approaches. This paper has described some of the ways in which SPs can provide proactive, functional and sustainable services to adolescent clients. These include approaches incorporating strategy-based interventions for supporting adolescents with LI on an individual client basis, as well as whole population approaches through inter-professional collaborations and consultations.

There is a clear need for further intervention research in all aspects of service delivery addressing the clinical needs of this population. To provide evidence to support professional collaborations between SPs and secondary school teachers as a best-practice model of service delivery, an RCT is currently underway at the University of Sydney (Starling, Munro, Togher, & Arciuli, 2010). The trialled intervention, the Language in Classrooms (LINCS) Program, provides coaching and information dissemination by SPs to mainstream secondary school teachers, in the use of a range of classroom-based language modification and accommodation techniques. The aim of the program is to create more "language-accessible" environments in secondary school classrooms, so that students with LI are actively supported by their classroom teachers across subjects and grades. Results to date are demonstrating a high level of teachers' uptake of the techniques presented in the program, and a sustained use of these techniques over a period of time (Starling et al., 2010). It is hoped that further evidence-based research on models of service delivery will continue to improve the prospective outcomes of young people with LI.

References

Anderson, R. C., & Nagy, W.E. (1991). Word meanings. In P. D. Pearson & R. Barr (Eds.), *Handbook of reading research* (pp. 690–724). Hillsdale, NJ: Lawrence Erlbaum.

AFASIC Scotland. (2007). *Including young people with speech and language impairments in secondary school*. Retrieved from http://www.afasicscotland.org.uk/Secondary.htm

Baumann, J. F., & Graves, M. F. (2010). What is academic vocabulary? *Journal of Adolescent & Adult Literacy*, *54*, 4–12.

Beck, I. L., McKeown, M. G., & Lucan L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: The Guilford Press.

Brent, M., Gough, F., & Robinson, S. (2001). *One in eleven: Practical strategies for teaching adolescents with a language learning disability*. Melbourne: ACER Press.

Brent, M., & Millgate-Smith, S. (2008). *Working together: Linking skills and curriculum for adolescents with a language-learning disability*. Melbourne: ACER Press.

The Communication Trust. (2009). *Speech, language and communication information for secondary schools*. Retrieved from www.thecommunicationtrust.org.uk

The Communication Trust. (2010). *Sentence trouble*. Retrieved from http://www.sentencetrouble.info/

Dohan, M., & Schulz, H. (1998). The speech-language pathologist's changing role: Collaboration within the classroom. *Communication Disorders Quarterly*, *20*, 9–18.

Ehren, B. J. E. (2002). Speech-language pathologists contributing significantly to the academic success of high school students: A vision for professional growth. *Topics in Language Disorder*s, *22*, 60–80.

Fuller, A. (2001). A blueprint for building social competencies in children and adolescents. *Australian Journal of Middle Schooling*, *1*, 40–48.

Gajria, M., & Salvia, J. (1992). The effects of summarization instruction on text comprehension of students with learning disabilities. *Exceptional Children*, *58*, 508–516.

Gascoigne, M. (2008). Change for children with language and communication needs: Creating sustainable integrated services. *Child Language Teaching and Therapy*, *24,* 133–154.

Graham, L., & Wong, B. L. (1993). Comparing two modes of teaching a question-answering strategy for enhancing reading comprehension: Didactic and self-instructional training. *Journal of Learning Disabilities*, *26*, 270–279.

Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research*, *71*, 279–320.

Hollands, K., van Kraayenoord, C. E., & McMahon, S. (2005). Support to adolescents experiencing language difficulties: A survey of speech-language pathologists. *Advances in Speech Language Pathology*, *7*, 113–129.

Joffe, V. L. (2006). Enhancing language and communication in language-impaired secondary school-aged children. In J. Ginsborg, & J. Clegg (Eds), *Language and social disadvantage* (pp. 207–216). London: Wiley.

Joffe, V. L. (2010). *Enhanced language and communication in secondary schools (ELCISS)*. Retrieved from http://www.elciss.com/

Larson, V. L., & McKinley, N. L. (2003). *Communication solutions for older students*. Eau Claire, WI: Thinking Publications.

Law, J., Lindsay, G., Peacey, N., Gascoigne, M., Soloff, N., Radford, J., & Band, S. (2002). Consultation as a model for providing speech and language therapy in schools: A panacea or one step too far? *Child Language Teaching and Therapy*, *18*, 145–164.

Law, J., Rush, R., Schoon, I., & Parsons, S. (2009). Modelling developmental language difficulties from school entry into adulthood: Literacy, mental health and employment outcomes. *Journal of Speech, Language and Hearing Research*, *52*,1401–1416.

Lenz, B. K., Ellis, E. S., & Scanlon, D. (1996). *Teaching learning strategies to adolescents and adults with learning disabilities*. Austin, TX: Pro-Ed.

Malone, L. D., & Mastropieri, M. A. (1991). Reading comprehension instruction: Summarisation and self-monitoring training for students with learning disabilities. *Exceptional Children*, *58*, 270–279.

Marzano, R., & Pickering, D. (2006). *Building academic vocabulary*. Heatherton, VIC: Hawker Brownlow Education.

Mastropieri, M. A., Scruggs, T. E., & Graetz, J. E. (2003). Reading comprehension instruction for secondary students:

Challenges for struggling students and teachers. *Learning Disability Quarterly*, *26*, 103–116.

McLeod, S., & McKinnon, D. (2007). Prevalence of communication disorders compared with other learning needs in 14 500 primary and secondary school students. *International Journal of Language & Communication Disorders*, *42*, 37–59.

Montgomery, J. W., & Levine, M. D. (1995). Developmental language impairments: Their transactions with other neurodevelopmental factors during the adolescent years. *Seminars in Speech and Language*, *16*, 1–12.

Nippold, M. (2002). Lexical learning in school-age children, adolescents and adults: A process where language and literacy converge. *Journal of Child Language*, *29*, 449–488.

NSW Department of Education and Training (2003). *Quality teaching in NSW public schools*. Sydney: Professional Support and Curriculum Directorate.

Schumaker, J. B., & Deshler, D. D. (2003). Can students with LD become competent writers? *Learning Disability Quarterly*, *26*, 129–141.

Simon, C. S. (1998). When big kids don't learn: Contextual modifications and intervention strategies for age 8–18 at-risk students. *Clinical Linguistics and Phonetics*, *12*, 249–280.

Snowling, M., Bishop, D. V. M., & Stothard, S. E. (2000). Is preschool language impairment a risk factor for dyslexia in adolescence? *Journal of Child Psychology and Psychiatry*, *41*, 587–600.

Starling, J., Munro, N., Togher, L., & Arciuli, J. (2010). *Tackling language disability in secondary schools: Can professional collaborations work?* Paper presented at Speech Pathology Australia National Conference, Melbourne, Australia.

Starling, J., Munro, N., & Togher, L. (2008). *Working with adolescents with language disability: What's the evidence?* Paper presented at Speech Pathology Australia and New Zealand Speech-Language Therapists' Association Joint Conference, Auckland, New Zealand.

Stothard, S. E., Snowling, M. J., Bishop, D. V. M., Chipchase, B. C., & Kaplan, C. A. (1998). Language-impaired preschoolers: A follow-up into adolescence. *Journal of Speech, Language, and Hearing Research*, *41*, 407.

Tattershall, S. (2002). *Adolescents with language and learning needs*. Albany, NY: Singular.

Throneburg, R. N., Calvert, L. K., Sturm, J. J., Paramboukas, A. A., & Paul, J. R. (2000). A comparison of service delivery models: Effects on curricular vocabulary skills in the school setting. *American Journal of Speech-Language Pathology*, *9*, 10–20.

Wilson, G., Nash, M., & Earl, G. (2010). Supporting students with language learning difficulties in secondary schools through collaboration: The use of concept maps to investigate the impact on teachers' knowledge of vocabulary teaching. *Child Language Teaching and Therapy*, *26*, 163–179.

Wong, B. Y. L. (1997). Research on genre-specific strategies for enhancing writing in adolescents with learning disabilities. *Learning Disabilities Quarterly*, *20*, 140–159.

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(December 2009 – December 2010)

The editors wish to thank the following people who reviewed papers for *ACQuiring Knowledge in Speech, Language and Hearing*:

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