# A Review of the Literature on English as a Second Language (ESL) Issues

## The Language Research Centre—University of Calgary

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## Preamble

The Language Research Centre at the University of Calgary was contracted by Alberta Education to produce an annotated bibliography on diverse aspects of education related to English as a Second Language (ESL) students.  Part I deals with best practices when it comes to delivering content and curriculum in the ESL classroom, Part II deals with meeting the needs of students with special needs in the ESL community, and Part III addresses the question of how best to serve ESL students who have limited literacy skills in their first language.

# PART I:
# Content and Curriculum for ESL Students

## Introduction

The following is a review of the literature that supports content-based language learning.  The articles and books reviewed here cover recent literature as well as a number of key contributions that date as far back as the late 1980s.  There are many commonalities between the earlier works and those of more recent origins since the authors grapple with similar concepts.  These early inquiries into content-based language learning offer insights and discuss educational benefits in the areas of learning strategies, thematic teaching, sheltered instruction, collaborative learning, use of comprehensible input and concept development.  The foundational literature is preoccupied with identifying areas of interest, while the more contemporary resources approach these issues more pragmatically.  More recent texts read as "how-to" manuals for the classroom teacher.

A number of additional themes emerge within this body of literature.  Common instructional strategies are repeatedly cited as sound practice for the content-based language learning classroom.  The development and use of native language is seen as advantageous to both learner and teacher.  The learner builds cognitive resources and gains cultural knowledge, while the teacher is able to activate prior learning and build background knowledge.  Under the umbrella of comprehensible input, the use of appropriate materials and visuals, modified language and scaffolding are discussed.

While commonalities do emerge, the field is divided regarding direct instruction.  There are two distinct camps, where one calls for direct instruction in all aspects of language, e.g., vocabulary, structure and concepts, and the other posits that learners will acquire the language when actively engaged in learning the content.  While the line between the two approaches has been drawn, both sides do agree that vocabulary development is key to content-based language learning and collaborative active learning is essential in building language and content knowledge.

## References

Alanis, I. (2004). Effective instruction: Integrating language and literacy. ERIC No. ED481649, http://www.eric.ed.gov (Accessed March 17, 2008).

The authors believe that developing literacy skills is where the achievement gap is the most severe.  To narrow the gap, the following factors are identified and discussed.
- Classroom environment: an enrichment program that makes use of the native language, a natural learning environment, a safe and trusting atmosphere, a classroom library with varied levels and languages represented, student-generated books and group-constructed texts, and a home reading program.
- Activating prior knowledge: teachers must bridge bicultural knowledge with embedded meaningful and relevant language, and thematic units with visuals and games.
- Instructional approaches: focus on vocabulary development, e.g., reading aloud with discussion and storytelling; writing, e.g., journalizing, interactive writing, real-life purposes for writing tasks; and cooperative learning, e.g., flexible ability grouping for comprehensible motivating input.

Also recommended, but not discussed, is continuity of instruction and incorporation of ESL standards into learning objectives.

Bigelow, M., Ranney, S., & Dahlman, A. (2006). Keeping the language focus in content-based ESL instruction through proactive curriculum-planning. *TESL Canada*, *24*(1), 40–58.

The "connections model" is proposed as a framework for curriculum development in the content-based classroom. The framework places emphasis on language, however the authors do acknowledge that most planning must begin with content materials. This model is in response to the authors' perception that although, in many other content-based frameworks, the language objectives are in the plans they are seldom addressed in practice. Deliberate attention is paid to language in the connections model. The model is characterized as a triangle where each of its sides represents a key element of content, functions and language structures with lexicalized grammar and text organization being part of language structures. Each element is connected by a corner of the triangle representing learning strategies. The model is intended to be flexible and dynamic, providing contextualized language learning through a task-based approach.

Brinton, D. M., Snow, M. A., & Wesche, M. (2003). *Content-based second language instruction*. New York, NY: Newbury House.

The authors examine the three approaches to content-based language instruction of thematic instruction, sheltered classrooms and adjuncting. All three models suggest an integration of content and language objectives where the form and sequence of language learning is dictated by the content material. All three models account for language needs, incorporate target language, build on background knowledge and provide an opportunity for meaningful language use. The following are some key differences.
- Thematic instruction:
  – content is presented in modules and the curriculum may be reorganized around broad concepts
  – language teacher becomes the subject teacher
  – there is a rich integration of skills and tasks
  – many materials are teacher-created.
- Sheltered instruction:
  – content is presented as isolated subjects
  – the subject teacher becomes the language teacher
  – speech and content materials are modified.
- Adjunct instruction:
  – learners are enrolled simultaneously in two linked courses, one of these focuses on content and the other on language.

The three models of delivery suggest a continuum that would enable students to move through the three modes into mainstream courses. Thematic instruction is suggested for the first step. However, the authors indicate this model is appropriate for all learner proficiency levels, moving from the sheltered model for intermediate learners, to adjuncting for high-intermediate to advanced, before transitioning into mainstream classrooms.

Cary, S. (2000). *Working with second language learners: Answers to teachers' top ten questions*. Portsmouth, NH: Heinemann.

This book places its emphasis on teaching strategies and the integration of the four language strands of speaking, listening, reading and writing. Using a formulaic approach, each chapter attempts to answer a basic teaching question; e.g., "How do I teach grade-level content to English beginners?" Each question is presented, followed by a "readers' guide" that provides details about the vignette and succinct answers to the quandry. This guide is followed by a story from the classroom that presents the pedagogical question as well as what teaching strategies could be used to deal with the classroom challenge. A discussion and theoretical rationale is also presented. In broad statements the author claims that learning language through content is highly effective and engaging provided the appropriate teaching strategies are used. According to Cary, the ideal language learning classroom is communicative, constructivist and collaborative. It draws on critical pedagogy, whole language approaches, process writing and brain-based learning and supports the development of learning strategies; i.e., Cognitive Academic Language Learning Approach (CALLA). In the chapter that addresses teaching language in content classroom the need for engaging content, strategies, realia and collaborative learning is stressed.

Chamot, A., & O'Malley, J. M. (1994). *The CALLA handbook: Implementing the cognitive academic language learning approach*. Reading, MA: Addison-Wesley Publishing Company.

CALLA is a curriculum framework and instructional model for teaching language in the content areas. The main focus of the framework is the learning process as opposed to teaching strategies. The framework draws heavily on the theories of Cummins' Basic Interpersonal Communication Skills (BICS)/Cognitive Academic Language Processing (CALP) model. CALLA endeavours to establish high learner expectations, integrate CALP and content instruction, develop assessments consistent with the modes of instruction and further professional development of teachers through the framework. The theoretical framework is based on three principles:
- learning is active
- there are three types of knowledge—declarative, procedural and metacognitive
- students must become independent learners.

The framework emphasizes the importance of learning strategies, instruction of academic language skills, scaffolding to content and building background knowledge. The authors posit that all teachers, from science to language arts, can be language teachers through the use of the "language experience approach" of using whole language, process writing, cooperative learning, cognitive instruction and the development higher-order thinking skills.

Chamot, A., Barnhardt, S., El-Dinary, P., & Robbins, J. (1999). *The learning strategies handbook*. White Plains, NY: Longman.

Learning strategies provide the foundational underpinnings of this work and the authors advocate that they should form a significant part of any language learning lesson. Learning strategies, particularly metacognitive strategies such as goal setting, self-evaluation, selective attention and organization, are seen as the gateway to successful integration of language learners into mainstream classrooms. While it is acknowledged that there are many learning strategies, the activation of background knowledge,

cooperative learning, deductive reasoning, grouping of like information, inferencing, prediction, imagery, note-taking, self-talk and summarizing are singled out as key. The use of graphic organizers is integrated into all the various strategies that are mentioned. Although not a focus of the work, the use of portfolios is suggested to best assess learner needs and progress. The authors advocate for a learner-centered approach.

Coehlo, E. (2004). *Adding English: A guide to teaching in multilingual classrooms*. Toronto, ON: Pippin.

This text is directed at classroom teachers in the K–12 system, either in ESL or mainstream classrooms. Due to the intended audience, numerous strategies are discussed. General background information is provided for establishing a supportive environment, such as "how English works," e.g., phonology, vocabulary, communicative competence and language learning theories, and how instruction can best be structured to meet learner needs. The issue of language across the curriculum is addressed in detail following the presentation of the general information. Strategies included in the discussion are:

- the use of key visuals; e.g., graphic organizers
- guided reading; e.g., pre-, during- and post-reading questions
- contextualized vocabulary and grammar; e.g., pre-teaching required vocabulary through word maps or contextual guessing
- writing and project scaffolds; e.g., cloze, sentence combining, templates
- learning journals
- the use of alternate tasks; e.g., art, role playing
- the need for appropriate assessments and alternative resource materials.

Coppola, J. M. (2003). Meeting the needs of English learners in all-English classrooms: Sharing the responsibility. In G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 182–196). Rowland Heights, CA: International Reading Association.

This article discusses a six-week study where the researcher observed literacy instruction in mainstream classrooms of both native speakers and language learners. In addition to observations, Coppola developed a short workshop to familiarize teachers with language teaching strategies and support the collaboration of teachers across subject disciplines. The teachers participating in the collaborative effort were also interviewed throughout the process. Strategies that these educators found successful were the use of visuals to support comprehension, planned opportunities to practise language, collaborative work such as small group projects and peer editing, and building background knowledge. Educators reported being more satisfied with the level of inclusiveness in their classroom as well as being better able to prepare learners for grade-level work through more planned language tasks.

Crandall, J. (1994). Content-centered language learning. ERIC No. ED367142, http://www.eric.ed.gov (Accessed March 17, 2008).

Crandall provides an overview of a number of language-through-content approaches that are currently in the school system. "Content-based instruction" occurs when the language teacher uses content to teach the language; "sheltered subject teaching" finds the content teacher modifying delivery to provide comprehensible input for learners. This differs from "sheltered instruction," which draws on modified

content materials to teach the subject. The theme-based approach is delivered by the language teacher who develops broad themes to encompass a number of content areas while developing academic language proficiency. "Content-centered language" across the curriculum with an awareness of language is a collaborative effort for teachers. The adjunct model sees language classes paired with content classes in order to support language development necessary for the comprehension of content. The CALLA model, which combines language and content with a focus on learning strategies, is reviewed. What all these modes of delivery have in common is the focus on meaning and content while language serves as the vehicle. All methods would suggest modified use of the target language and comprehensible input in an engaging, supportive environment. Specific strategies mentioned are cooperative learning, task-based learning, whole language and the use of graphic organizers. The end goal of all these methods and strategies is to enable students to continue in their development of content knowledge while language grows.

Crandall, J., Jaramillo, A., Olsen, L., & Peyton, J. K. (2002). Using cognitive strategies to develop English language and literacy. ERIC No. ED469970, http://www.eric.ed.gov (Accessed March 17, 2008).

This article describes ways to develop student language and literacy skills while engaged in academic content. Five major strategies are discussed.
- Building conceptual frameworks: students must understand relationships between ideas. The authors suggest the use of schemas or interpretive frames; e.g., graphic organizers to help clarify connections between ideas.
- Use of learning strategies: students must learn to monitor their own learning in order to experience success. Teachers must identify the strategy, explain its relevance, demonstrate its use, provide opportunity for practice and provide tools for students to evaluate its effectiveness.
- Focus on reading across all classes: teachers can explicitly teach what good readers do in pre-, during- and post-reading tasks, and provide opportunities for students to respond to text.
- Use of free reading: free reading can build vocabulary and reading habits. Students may need to be taught how to select appropriate reading material for level and interest.
- Moving beyond the text: at the conclusion of a unit, students may be asked to re-examine or rethink concepts to gain deeper understanding. This approach will force students to return to the text and reflect on its meaning.

The authors believe that developing language is not enough and must be extended to literacy development across the curriculum.

Dutro, S., & Moran, C. (2003). Rethinking English language instruction: An architectural approach. In G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 227–258). Rowland Heights, CA: International Reading Association.

Dutro and Moran take an architectural approach to language instruction for content learning to draw attention to the importance of program design. The authors advocate for daily explicit, systematic language instruction that is both embedded in and foundational to the content. The proposed framework consists of three components for daily language support.

- Systematic English instruction: English is taught as its own discipline, follows scope and sequence of language development, is organized by language proficiency and provides a solid linguistic foundation for concept development.
- Front-loading language: occurs across all content area classrooms with a focus on required language prior to content delivery.
- Teachable moment: occurs across all content area classrooms and deals with unexpected language needs as they arise in the content.

While each component is distinct, all three share the common features of reliance on scaffolds such as visuals, building of background knowledge, creation of meaningful context for functional language practice and use of comprehensible input. There must be a wide range of opportunities for language practice in a supportive environment and a focus on academic language and skills.

Echevarria, J., Vogt, M., & Short, D. (2000). *Making content comprehensible for English language learners: The SIOP model*. Needham Heights, MA: Allyn & Bacon.

The Sheltered Instruction Observation Protocol (SIOP) model advocates for students learning language through content outside the mainstream classroom. Language learners need to be "sheltered" in their own classrooms where they can receive specialized instruction. The primary goal of SIOP is building language while the secondary goal is learning content. Both are learned through teacher-identified key concepts. The SIOP framework rests on the following six principles referred to as instructional categories.
- Building background knowledge: building vocabulary and prediction tasks.
- Comprehensible input: adapting materials and text to appropriate language level.
- Strategies: explicitly developing learner strategies.
- Interaction: using a communicative approach and cooperative learning.
- Practice/application: using realia, models, manipulatives and graphic organizers.
- Delivery: providing scaffolding, using first language for key concept delivery when possible, modelling, and heavily using visual aids such as audiovisuals and multimedia.

The SIOP authors also advocate for provision of multiple ways for students to demonstrate their understanding, also known as broad-based assessments.

Fathman, A., Quinn, M., & Kessler, C. (1992). Teaching science to English learners, grades 4–8. ERIC No. ED349844, http://www.eric.ed.gov (Accessed March 17, 2008).

The purpose of this article is to help teachers plan, design and implement science activities while effectively integrating language. Ultimately, the authors provide step-by-step instruction for developing a language-based science unit. This work is built around a number of learning principles such as prior knowledge influences learning, learning moves from concrete to abstract and requires practice in new situations, and learning requires feedback and is not necessarily an outcome of teaching. The identified teaching principles are that methods must be consistent with scientific inquiry, reflect scientific values, strive to lower anxiety and extend beyond school. The following teaching strategies are also recommended.
- Collaboration: this includes both teacher and student collaboration through teambuilding and interdependence.

- Use of modified language: identify words, use less complex sentences and use repetition.
- Real-life relevancy: teachers are encouraged to consider the background of learners, use realia, and extend beyond the classroom with field trips and multimedia.
- Adapted materials: identify essential facts, vocabulary and skills, provide sociocultural knowledge, summarize written material orally, and teach previewing, questioning and reviewing skills.

The authors provide the following steps for designing an inquiry-based science unit.
1. Select a topic.
2. Choose a concept.
3. Identify language.
4. Design teacher demonstration.
5. Design group investigation.
6. Design individual investigation.
7. Plan oral exercises.
8. Plan written exercises.

General guiding principles for designing activities within these steps are provided as well. There must be multiple occasions for listening to and using language as well as opportunity for building background knowledge. Heterogeneous grouping of students to provide language models is suggested.

Freeman, D., & Freeman, Y. (1988). Sheltered English instruction. ERIC No. ED301070, http://www.eric.ed.gov (Accessed March 17, 2008).

The authors maintain that content is the focus of the language-through-content approach. The primary purpose of the content-based language class is to prevent students from slipping behind in their content knowledge while developing academic language proficiency. The ultimate goal is to gradually and completely transition language learners into mainstream academic classes. While language instruction is mentioned, the language teaching strategies presented are not for linguistic development but rather a means to make content-area material comprehensible. Strategies mentioned are: the use of physical activity, visual aids and the environment to convey concepts; linguistic modifications such as repetition, simplified vocabulary and redundancy; frequent comprehension checks during lectures; cooperative learning; and a focus on central concepts through the thematic approach.

Genesee, F. (1995). Integrating language and content: Lessons from immersion. http://www.ncela.gwu.edu/pubs/ncrcdsll.eprll.htm (Accessed March 17, 2008).

Genesee discusses effective practices identified in immersion programs in Canada and the United States. The three important themes are integration of language and content, creation of classroom environments rich in discourse, and systematic planning for language and content. Integrated instruction was deemed more effective than language learning in isolation because, when integrated with content, language is used for authentic communication. In these content-based language classes there are rich opportunities for language practice in an activity-centered environment with increased attention to language forms.

Genesee, F., Lindholm-Leary, K., Saunders, W., & Christian, D. (2005). English language learners in US schools: An overview of the research findings. *Journal of Education for Students Placed at Risk, 10*(4), 363–385.

This document is a review of research in the broader field of English language learners in the American school system. One of the areas of inquiry is "program, instruction and assessment." The literature identifies a number of instructional and program characteristics that contribute to the academic success of language learners, such as:
- a positive school environment
- a meaningful and challenging curriculum
- an enriched environment grounded in research and sound principles
- well-trained educators versed in the theories and methodologies of the program they teach
- collaborative environments for both students and educators.

In addition, sheltering models were found to be successful.

Gianelli, M. C. (1997). Thematic units: Creating an environment for learning. In M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 142–148). White Plains, NY: Longman.

The author discusses thematic teaching in light of its benefits for language learners. She provides the following step-by-step approach for the development of appropriate themes.
1. Selection of theme: broad enough to encompass a number of subunits.
2. Identification of concepts: the most important or critical concepts must be singled out for development.
3. Identification of skills: objectives for both language and content must be gleaned from various standards such as curriculum and benchmarks.
4. Identification of strategies: learning strategies must be appropriate and integrated into the content.
5. Gathering of materials: textbooks as well as supplementary materials that will best suit learner needs and course objectives must be collected.
6. Writing of model lesson plans: detailed lesson plans that follow a model must be written to incorporate the many complex objectives.

Thematic teaching is touted as a meaningful way to engage language and content in a context that promotes the learning of difficult concepts.

Gibbons, P. (2002). *Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom*. Portsmouth, NH: Heinemann.

This author focuses on pedagogical strategies and the integration of teaching ESL across the curriculum. A large portion of the work is dedicated to providing examples of useful strategies for teaching curriculum through the medium of language. A rudimentary curriculum development framework is provided as well as a glossary of teaching techniques. The book is divided into chapters based on language strands of listening, speaking, reading and writing; however, contrary to the discrete presentation of skills, the author proposes that these skills be integrated and supported across the whole curriculum. This is followed in the end by a brief summary of the research that informs the language-through-content movement. The importance of building background knowledge and ongoing

student assessment is highlighted as an integral source of understanding learner needs. A communicative approach is presented as the most effective means to engage learners in meaning-making and authentic language use. Language is viewed as a functional skill that is required to learn curriculum content.

Graves, M. F., & Fitzgerald, J. (2003). Scaffolding reading experiences for multilingual classrooms. In G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 96–124). Rowland Heights, CA: International Reading Association.

The authors present a method for building literacy skills for language learners in a content-based classroom setting. The Scaffolded Reading Experience (SRE) is intended to be part of a comprehensive reading program. The central concept in the framework is scaffolding. Scaffolding must help the learner to comprehend more fully at an instructional level what he or she could not comprehend at an independent level. It must be temporary with the goal of removing the scaffolding and be in the zone of proximal development of the learner. The framework for developing the reading program is presented in two phases. The planning phase takes account of the learners, readings and purpose of readings, and the implementation phase is comprised of pre-, during- and post-reading work. The implementation phase is fleshed out with specific suggestions as to effective strategies. The authors present the list but state that educators should not attempt to use all listed strategies with each reading. Pre-reading tasks need to motivate the learners and build background knowledge through pre-teaching of vocabulary and concepts, making predictions, engaging the first language by potentially drawing community resources, and addressing learning strategies. During-reading activities suggested are silent reading, teacher reading, student read-aloud, guided reading and the modification of text. In the post-reading phase, questions, writing, dramatic and nonverbal tasks, building connections, application of new knowledge and re-teaching are all listed. The authors stress a dynamism between each phase, suggesting that each phase affects the choices made in the rest of the process.

Gunderson, L. (1991). *ESL literacy instruction: A guidebook to theory and practice*. Englewood Cliffs, NJ: Prentice-Hall.

The focus of this work is on reading instruction. Gunderson conditionally advocates for the language-through-content movement. He suggests that if language learners are unable to comprehend grade-level text they should be given intensive reading support until they are able to cope with text at the instructional level. Once these students have been integrated, he suggests a number of different strategies: simplified text to control vocabulary; a balance of whole language and phonics instruction; language experience approach; levelled grouping; cloze tasks; and direct instruction of reading strategies. The development of independent reading skills is the goal of teaching language learners in the content classroom. This independence is achieved through strategy development such as skimming, scanning and pre-reading, also referred to by Gunderson as study guides. Considerable time is spent discussing specific strategies for technical reading. These strategies are given acronyms such as "SQ3R." These are to guide students through the process of surveying—looking for headings, bolded type; questioning—creating pre-reading questions to guide reading; reading; reciting—summarizing text; and reviewing. This method is only one among other named sequences that serve as reading plans for students.

Hernandez, A. (2003). Making content instruction accessible for English language learners. In
G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 125–149).
Rowland Heights, CA: International Reading Association.

For Hernandez, content-based language instruction is the integration of various objectives such as content/information, language/vocabulary and discourse, and general skills/construction of knowledge frameworks and cognitive development. While the sheltered language approach is mentioned, i.e., the need for authentic tasks, scaffolding through visuals and modified language, the bulk of the work focuses on methods that can be used in any content-based language classroom. Delivery methods suggested are thematic or interdisciplinary. Within these generalities several characteristics of these classrooms are discussed including that work is meaningful and scaffolded through carefully sequenced lessons. Language and concept objectives can be met through the use of graphic organizers. Independent work must be balanced with group work and a strong emphasis is placed on vocabulary development through supplementary materials. In general, the classroom must be communicative and student-centered to support cognitive development. Metacognitive strategies are singled out as valuable to create independence. The use of appropriate materials is also touched upon; however, the gist of this discussion is a call to publishers to create materials that are both linguistic and age appropriate while dealing with necessary content. In the end, negotiation for meaning is of utmost importance as this process supports the development of concepts and refines language through communication.

Herrera, S. G., & Murry, K. G. (2005). *Mastering ESL and bilingual methods: Differentiated instruction for culturally and linguistically diverse (CLD) students*. Boston, MA: Allyn & Bacon.

The authors state that content is used to construct the learning environment for the development of language and literacy. Generally, language is seen to be the domain of the language and language arts teachers who are responsible for supporting the development of language proficiency necessary for content areas. It is suggested that subject and language teachers collaborate to identify key objectives for language and content areas and develop appropriate curriculum. Adjunct and pullout classes, as well as thematic organization, are identified as effective methods of delivery. The authors provide a framework for the planning and delivery of language and content classes in three stages.
1. Planning: select theme, choose subtopics, create language and content objectives, gather materials and arrange classroom environment.
2. Instruction: select and pre-teach vocabulary, build background knowledge, provide opportunities for collaborative learning, use authentic tasks to build literacy skills, use supplementary visuals and organizers, and develop learning centers.
3. Assessment: use both formative and summative assessment.

In addition to this information both the sheltered model and CALLA methods are discussed.

Hill, J., & Flynn, K. (2006). *Classroom instruction that works with English language learners*. Alexandria, VA: Association for Supervision and Curriculum Development.

This text covers many strategies intended for elementary mainstream teachers who have language learners in their classrooms. The authors recommend setting clear, yet flexible language objectives. A number of general language learning principles are that students learn language when engaged and interested and when they can draw on background knowledge, and language learning is embedded in context. Strategies suggested are: the use of supplementary materials such as multimedia, models, graphic organizers; and use of modified language, hands-on tasks, cooperative learning, previewing of content/concepts and required language such as vocabulary, forms, functions, as well as helping students organize for learning in advance. Additional learning strategies suggested are summarizing and note-taking. An entire chapter is devoted to involving parents and the community in the learning process to recognize the importance of supporting the first language.

Jesness, J. (2004). *Teaching English language learners K–12: A quick-start guide for the new teacher*. Thousand Oaks, CA: Corwin Press.

Jesness promotes the sheltered English class model, which includes specialized classes for intermediate learners that make use of modified materials, controlled vocabulary and simplified texts with a general focus on vocabulary development. Depending on the proficiency of the students learning objectives differ; upper intermediate focus on content while lower intermediate focus on language. With either approach hands-on learning, cooperative grouping and demonstrations are valuable. Implicit or explicit modes of delivery are appropriate provided there is opportunity for language practice. The value of prior knowledge, incidental learning, modified and bilingual materials are discussed. Sheltering is viewed as a bridge into mainstream classrooms as students are slowly integrated into courses with their native speaking peers beginning with non-academic classes progressing to academic, linguistically demanding courses with provisions made for out-of-class; e.g., tutoring and adjuncting support. A unique feature of this text is that it advocates for slowing down progress through school and allowing additional time for language to develop.

Kagan, S. (1995). We can talk: Cooperative learning in the elementary ESL classroom. ERIC No. ED382035, http://www.eric.ed.gov (Accessed March 17, 2008).

This short article touts the benefits of cooperative learning in the classroom. Benefits are divided into the three categories of input, output and context. The benefits of cooperative learning in regard to input are that language is comprehensible, developmentally appropriate, redundant and grammatically accurate. The benefits of cooperative learning in regard to output are that the language is functional and communicative, frequent, redundant and identity congruent. This language occurs in a supportive, motivating, communicative, developmentally appropriate and feedback-rich context.

Kagan, S., & McGroarty, M. (1993). Principles of cooperative learning for language and content gains. In D. Holt (Ed.), *Cooperative learning: A response to linguistic and cultural diversity* (pp. 47–66). McHenry, IL: Center for Applied Linguistics.

Cooperative learning is presented as an effective way to make content comprehensible to the language learner. The wide variety of strategies employed in the cooperative classroom can expose students to academic content as well as improve comprehension and language production. The focus of the discussion is on the similarities between the principles of cooperative learning and teaching a second language. Three basic commonalities are the increase of comprehensibility of content, the increase of language production and the creation of a safe and supportive learning environment. These goals are achieved by providing opportunities for interaction through negotiation among learners and the provision of multiple exposures to aid comprehension of both language and content. Cooperative learning advocates for interdependence among learners balanced with individual accountability supporting social development and comprehension. Language and content learning benefits identified are variations of comprehensible and meaningful language input, and interactive and practical language output in a supportive learning environment. The authors also suggest specific approaches for the cooperative language classroom. Groups should be a balance of heterogeneous and homogeneous learners so they can learn from and support each other, group members should have assigned roles referred to as micro-structuring, the "jigsaw" is promoted and there should be even-numbered groupings to support pair work.

Kidd, R., & Marquardson, B. (1994). *The foresee approach to content-based ESL instruction*. Paper presented at the 28th Annual TESOL Convention. ERIC No. ED374677, http://www.eric.ed.gov (Accessed March 17, 2008).

The "Foresee Approach," named for the four "Cs" in communication, Cognitive Academic Language Processing (CALP) and content in the classroom, is an extension of the CALLA method where content is the driver in the content-based language classroom. This method is the integration of:
- content; e.g., knowledge, skills and appreciation
- strategies; e.g., metacognitive, cognitive and socio-affective
- language; e.g., linguistic (vocabulary, structures, discourse features) functions and skills.

Primarily, this method suggests lesson techniques that can be combined with CALLA's lesson sequence. These techniques are:
- "text-questioning"; e.g., establishing questions for text
- "dictated instruction"
- research; e.g., providing scaffolding for the inquiry process
- presentation; e.g., providing scaffolding for presentations
- "t-lists"; e.g., providing steps to create t-lists as a method of comparison. The authors recommend a thematic approach.

Kennedy, E. (2006). Literacy development of linguistically diverse first graders in a mainstream English classroom: Connecting speaking and writing. *Journal of Early Childhood Literacy*, *6* (2), 163–189.

This article discusses a qualitative study of first graders, specifically language learners in a mainstream classroom. Students who were invited to write in their first language (L1) produced significant gains in their English writing in terms of content, detail development, competence and overall verbal and written communication. Having students create poetry in their L1 served to validate their language and culture. Through this work students explored their self-concept as bilinguals as they developed a "natural" voice through the hybrid use of languages.

Larsen-Freeman, D. (2000). *Techniques and principles in language teaching* (2nd ed.). New York, NY: Oxford University Press.

This author briefly examines content-based instruction amid a number of other approaches to teaching language. "Process" is determined to be the central focus of the language-through-content approach— students use the language to learn it. Language is dictated by content; however, language and content objectives must both be identified and made salient. She suggests a number of specific strategies that can be found in classrooms such as use of modified cloze passages, authentic supplementary materials and multimedia, group-constructed text and pre-teaching of vocabulary. In addition, cooperative learning, building on background knowledge, scaffolding and the importance of appropriate context to build vocabulary are mentioned. An important feature is that content is cognitively demanding and integrates many aspects of communicative competence.

Law, B., & Eckes, M. (2000). *The more than just surviving handbook: ESL for every classroom teacher* (2nd ed.). Winnipeg, MB: Portage & Main Press.

This resource addresses how to plan with content curriculum in mind while meeting language objectives. Two underlying questions rest at the foundation of this approach:
- "What is the necessary content students must learn?"
- "What is the key language; e.g., vocabulary, syntax and pragmatics students must know in order to learn content?"

The five-step approach to curriculum development to support learning objectives for language learners is:
1. Prepare: students need clearly defined goals for both language and content and appropriate topics of study; e.g., broad concept, thematic, rich language, simplified but essential vocabulary.
2. Present: students require comprehensible input since textbooks may not be appropriate, differentiation and scaffolded learning.
3. Practise: students must be engaged in learning and doing, supported by development of higher-order thinking skills and provided with many opportunities for interaction.
4. Evaluate: students are best assessed through multiple and diverse measures such as observation, discussions, project work and oral tests with simplified language.
5. Follow-up: students must be able to apply their learning to authentic situations.

Met, M. (1994). Teaching content through a second language. In F. Genesee (Ed.), *Educating second language children: The whole child, the whole curriculum, the whole community* (pp. 159–183). New York, NY: Cambridge University Press.

The author addresses the challenge of teaching language in the content classroom in three phases of planning, teaching and assessment.  Each of the phases consists of the following:

- Planning: in addition to regular planning, language teachers must plan for sequencing objectives, language growth, instructional activities to ensure comprehensible input, selection of appropriate materials and assessments.
- Teaching: as both language monitor and model, the teacher's role is to facilitate the negotiation for meaning, ensure comprehension, support communication, and expand and refine student language.
- Assessment: the teacher must ensure concept mastery as well as language proficiency.

While the article is quite general in nature, the author does pay particular attention to the need for coordination of teacher efforts to meet content and language goals of language learners in the mainstream classroom.

Mohan, B. (1990). *LEP students and the integration of language and content: Knowledge structures and tasks*. Paper presented at the Research Symposium on Limited English Proficiency Student Issues. ERIC No. ED341264, http://www.ncela.gwu.edu/pubs/symposia/first/lep.htm (Accessed 17, 2008).

"Knowledge Structures" is presented as a means to combine and reconcile objectives for language, content and core thinking skills.  It draws on the research from input hypothesis, bilingual proficiency and language socialization theories.  Knowledge structures are based on the idea that both language and content are built on repetitive patterns.  Knowledge of these patterns will improve retention of content. In other words, knowledge is schematized.  Through systematic planning and monitoring of learning tasks, educators support students as they discover underlying concepts through cooperative learning and the development of metacognitive learning strategies while developing content and language awareness.  This complex curriculum development framework is deceptively simple in its rationale and relies heavily on graphic organizers for both students and teachers.

Mohan, B., & Beckett, G. H. (2003). A functional approach to research on content-based language learning: Recasts in casual explanations. *The Modern Language Journal*, *87* (3), 421–432.

Mohan and Beckett focus on functional grammar to demonstrate how functional language can be targeted in the content-based language classroom as an intentional objective.  The article begins with a brief presentation of French immersion methodology.  In the past, this program has produced fluent but grammatically weak students, so now there is a focus on form through the use of corrective recasts. How language is used to communicate information is a new driving force in French immersion.  It is from this perspective that the authors posit that language and content should no longer be assessed as separate entities as language cannot be separated from meaning or content.  Meaning must be related to content, as language only has meaning in context.  "Knowledge frameworks" is presented as a possible methodology as it focuses on meaning and the classification of knowledge through language.  This idea is explored through a functional approach to causal language.  A focus is on a group of lexical and grammatical features that express causal meaning; e.g., because, if, due to, conjunctions.  The authors

explore how these features could be taught together to address causal content. This method addresses advanced language needs that are often neglected in content-based language classes.

Mohan, B., Leung, C., & Davison, C. (2001). *English as a second language in the mainstream: Teaching, learning and identity*. New York, NY: Longman.

This text takes a broad look at the history and development of language teaching in Australia, Canada and England as a changing and evolving practice. Content-based instruction and second language learners in the mainstream are shown to be the latest evolution. Many effective strategies are identified by the authors including cooperative learning, learning strategies, integration of content and language objectives, use of comprehensible input and scaffolded learning. Common strategies that emerge through all methods examined are the use of graphics and other visuals to support learning. Many positive practices are identified, with a major caution that with the integration of language and content it is all too easy to lose the language in the mix. A common conclusion across all methods, on all continents, is that collaboration between content and language teachers is to the benefit of the learner and must be preceded by a balance of power between these fields if collaboration is to be effective. Explicit and systematic integration of learning objectives from both fields must and will be the next evolution of the language-through-content learning.

Ovando, C. J., & Collier, V. P. (1998). *Bilingual and ESL classrooms: Teaching in multicultural contexts* (2nd ed.). New York, NY: McGraw-Hill.

The authors provide a detailed discussion of many relevant issues involved in language learning including a description of learners and challenges, policy and programs, teaching styles, language learning theories, cultural awareness, assessment and community involvement. The authors also specifically address teaching language in the content areas. They posit that language is best learned within a meaningful, non-threatening context with comprehensible input at the instructional level. A theme-based approach is recommended, although sheltering, adjuncting and pullout support programs are mentioned as well as long as content and language are learned simultaneously. As children learn by "doing" it becomes the educator's role to ensure that active, inquiry-driven learning takes place through authentic, hands-on tasks where process and meaning are emphasized. It is also the teacher's role to know grade-level content expectations as well as all prior grades to help students through each step. Specific strategies, mentioned for use in content-based language classroom, include the use of graphic organizers, integration of all strands, direct instruction of learning strategies, collaborative work, modification of language and activation of background knowledge. In addition, the use of first language and participation of the first language community, whenever possible, is recommended.

Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. New York, NY: Newbury House Publisher.

While not specifically concerned with teaching language through content, this text serves as one of the foundational works that informs many language-through-content theories and practices. The articulation of learning strategies paved the way for moving students into content area classrooms. Oxford's book describes the various types of learning strategies, offers a model for strategy training and suggestions for the assessment of strategy use, and provides examples of various learning tasks as well as their authentic applicability. Strategies are viewed as ideal in any learning environment for

language learners and teachers, even those engaged in mainstream classrooms. Oxford promotes the use of strategies as a method for helping students become more active, independent learners. The use of strategies has been widely embraced by all teachers, particularly language teachers preparing their learners for content area classrooms.

Peregoy, S., & Boyle, O. (2001). *Reading, writing, and learning in ESL: A resource book for K–12 teachers*. New York, NY: Longman.

Language-through-content (LTC) is one topic of discussion in this book, which emphasizes the importance of reading in the content areas. The focus of the section on LTC breaks the process of reading into three sections and all strategies are connected to one of these areas.

- Pre-reading: establish purpose for reading, anticipation guides, skimming and scanning, preview guides, preview vocabulary and analysis of text structure.
- During-reading: monitor comprehension through scaffolding and learning strategies, films, group reading, jigsaw and learning logs.
- Post-reading: organize and recall information, scaffolded essays, experiments, field trips, brainstorming, mind mapping, journals, research projects, photo essays, rehearsing, semantic feature analysis and student-selected topics.

The authors also suggest using multiple means of assessment, teaching through thematic units and using student-selected topics. The authors summarize their conceptual framework best by stating that "students must learn to set a purpose for reading, use their background knowledge, monitor their reading based on the purpose, and organize and remember what is important."

Ramirez, J. C. M., & Chiodo, J. J. (1994). A mathematical problem: How do we teach mathematics to LEP elementary students? *The Journal of Educational Issue of Language Minority Students*, *13*, 1–12.

Mathematics has long been regarded as a universal language. The authors dispute the idea that aptitude in math is not affected by language ability. They posit that, in fact, a reading level two years higher than the math class is required; e.g., to perform at the Grade 3 level in mathematics, a Grade 5 reading level is necessary. As pointed out by the authors, language learners are generally lower in their reading level as opposed to higher. They suggest the following strategies to help language learners in the mathematics classroom:

- stress comprehension, not rote drills
- use concrete manipulatives and hands-on learning tasks to supplement the regular lesson
- use cooperative learning and peer tutoring
- provide scaffolding for learning
- use reward systems
- emphasize multiculturalism and different perspectives
- use second language texts as much as possible
- use simplified instructions with plenty of repetition, being aware of culture referents and idioms
- use basic vocabulary and individualize instruction whenever possible
- model expected behaviour
- use direct instruction.

The authors recommend integrating these suggestions into everyday practice for the benefit of all students, including language learners.

Reilly, T. (1988). ESL through content area instruction. ERIC No. ED296572, http://www.eric.ed.gov (Accessed March 17, 2008).

Reilly's interpretation of the language-through-content (LTC) movement places the focus heavily on content with language as only the medium. The LTC classroom is viewed as an opportunity to acquire academic language proficiency while still supporting content knowledge growth. Language learning is to be a natural, subconscious process based on input that is meaningful and comprehensible. Reilly suggests that the content-based language classroom is interesting, relevant and challenging with many opportunities for learners to negotiate meaning and remain engaged with content. There is opportunity for integrating the four language strands of listening, speaking, reading and writing through a wealth of appropriate language. Specific classroom strategies that best support content learning through modified language input are peer tutoring, language experience approach, semantic webbing, and use of manipulatives, graphics and multimedia.

Reppen, R. (2002). A genre-based approach to content writing instruction. In J. Richards & W. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 321–327). New York, NY: Cambridge University Press.

The author presents an approach to teaching writing skills in the content-based classroom to help promote students' ability to write in various genres for academic purposes while gaining content knowledge. The teacher plays a central role in the writing process by providing scaffolding, linguistic support, analysis of text features and generally guiding students to the final writing goal. Educators must help students form an awareness of text functions and how organizing principles of writing interact with the purpose of the text. The author suggests a number of specific strategies in guiding students through the writing process including analysis of text features, group text construction, comparison of texts in different genres, use of graphic organizers, guided discussions and cooperative learning.

Richard-Amato, P. A. (1988). *Making it happen: Interaction in the second language classroom: From theory to practice.* New York, NY: Longman.

Although a more dated resource, this text was an early proponent in the field of the language-through-content (LTC) movement and contains references to some foundational practices that are currently used in the field. The distinction is made between various program structures that draw on the LTC theories of "submersion" where students are placed in mainstream classes and have no access to comprehensible input; "mainstreaming" where students are submerged only after receiving intense language instruction in a sheltered classroom; "immersion" where all learners have similar second language proficiency, otherwise known as a sheltered program; and "bilingual." Richard-Amato advocates for a combination of the program methods to meet students' needs, suggesting mainstreaming gradually as students are ready, beginning with cognitively undemanding classes. Moving from broad program recommendations to the more specific, the author goes on to list specific teaching strategies that could be effective in the mainstream classroom such as establishing a buddy system, providing marks in the form of "satisfactory/unsatisfactory," recording lessons on tape and re-

writing content area text. There are also suggestions for sheltered classrooms. The author recommends the use of visuals and realia, simplified support, when possible, for the first language and culture, frequent comprehension checks, use of bilingual dictionaries, reinforcement of key concepts and building background knowledge.

Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching* (2nd ed.). New York, NY: Cambridge University Press.

Richards and Rodgers advocate for an integration of language and content objectives where students learn to communicate by using language as the vehicle for learning content. The syllabus is derived from content unless it is thematic in nature. The method of delivery must be an integration of language skills that use content materials supplemented by visuals, authentic materials and educational media. These materials must be interesting, useful and engaging. The authors discuss the roles in the classroom. Learners are "active" as they must become independent, and teachers must become adept at assessing learner needs and balancing the multiple demands that a variety of curricula contain. Micro, in-class and macro planning across courses must be accounted for in content-based language classes to meet all the needs of learners. A number of targets for the language-through-content movement are discussed, including development of language skills and vocabulary, awareness of discourse organization, drawing and building on previous experience and development of communicative strategies; e.g., study skills. In addition, a well-balanced synthesis of content and grammar is discussed.

Roessingh, H. (2004). Effective high school ESL programs: A synthesis and meta-analysis. *The Canadian Modern Language Review*, *60* (5), 611–636.

This article is a review and synthesis of 12 studies that occurred over the past 14 years. These studies each examined effective programming based on outcome evidence, were longitudinal in nature, were replicable, and included both classroom and programmatic information. The author sought to identify common themes that affect learner achievement. An examination of the selected studies found that effective programming embodied the following characteristics:
- there was emphasis placed on first language
- higher-order thinking skills and cognitive development were a part of the curriculum
- teachers were educated and prepared to work with the learner profile
- collaboration at both the student and educator level was practised
- curriculum was organized thematically
- visual representations and learning journals were used
- there was administrative support
- explicit language instruction was part of the curriculum
- teachers were involved in student advocacy.

Rosen, N. G., & Sasser, L. (1997). Sheltered English: Modifying content delivery for second language learners. In M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom: Perspectives of integrating language and content* (pp. 35–45). White Plains, NY: Longman.

This article discusses the "sheltered model" approach. Specific techniques are discussed that are used to develop concepts and themes of the sheltered model. This is a content-driven approach, and language strategies are seen as the vehicle for helping students work through the language to understand content. Some of the strategies mentioned are hands-on learning tasks; e.g., building a model, scavenger hunt, the use of graphic organizers such as KWL and two-column charts, journals, sharing circles and retelling. Assessment for both language and content are ongoing and broad-based. According to these authors, the four key understandings that sheltered English teachers must be aware of are the need to be well-versed in the content, making grade-level material comprehensible, the language learning process and learning strategies. Sheltered English teachers need to be able to evaluate their own work in terms of learner success considering a number of factors including learning atmosphere, first-hand experience with content materials, use of visuals to supplement content materials, demonstrations, collaborative work in varying contexts, modified language, comprehension, focus on key concepts and development of background knowledge.

Sakash, K., & Rodriguez-Brown, F. V. (1995). Teamworks: Mainstream and bilingual/ESL teacher collaboration. http://www.ncela.gwu.edu/pubs/pigs/pigs24.htm (Accessed March 17, 2008).

This article discusses a specific project addressing teacher collaboration. This three-year project was developed to address the need for collaboration between general program and language teachers so that programs no longer operated in isolation. While language teachers needed to improve their understanding of mainstream curriculum, content teachers were required to raise their level of awareness of culture and learning styles. This project involved intensive, ongoing professional development and the expertise of external consultants. The techniques used to facilitate collaboration were observation in each others' classrooms, joint parent–teacher interviews, regular discussion of language learners, joint curriculum development and collaboration among all learners. Suffice to say, the time needed to support this collaborative effort was built into the teaching day. This process resulted in an awareness of diversity reflected in both the physical environment and concepts in the classroom.

Scarcella, R. C., & Oxford, R. L. (1992). *The tapestry of language learning: The individual in the communicative classroom*. Boston, MA: Heinle & Heinle.

Scarcella and Oxford posit that the integration of the various language skills is of utmost importance in reaching their identified goal of communicative competence. Teachers are portrayed as merely guides and companions in the student-centered "tapestry" classroom. The authors do not delineate any specific rules concerning best practice as they strongly believe this process must be a negotiation between the language learner and the teacher. They indicate that teaching language must be a dynamic, interactional process where teachers shape their teaching to the needs of their students. Tapestry is influenced by the communicative approach and Vygotskian theories of learning regarding comprehensible input. Learning styles and strategies heavily influence this work. Student-driven language learning is the crux of this method and all strategies suggested revolve around how to best adapt teaching practice to fit the learner.

Schifini, A. (1994). Language, literacy and content instruction: Strategies for teachers. In K. Spangenberg-Urbschat & R. Pritchard (Eds.), *Kids come in all languages: Reading instruction for ESL students* (pp. 158–179). Neward, DE: International Reading Association.

This article builds an understanding of how best to facilitate comprehension of expository text. Methodology is focused in the four key areas of literacy, pre-reading tasks, vocabulary comprehension and text structure awareness. The suggested method is preceded by a discussion of the importance of the primary language that can be supported through access to reading material and promotion of bilingualism as an asset. Following this brief preamble the methodology is presented. A focus on literacy is achieved through the use of authenticity in both tasks and assessment, comprehensible yet challenging input, risk-taking through language and integration with native speaking peers. Pre-reading, tasks such as topic focus, analysis of text structure and features, theme, identification of key concepts, building background knowledge through use of visuals, multimedia, manipulatives, discussion, and linking background knowledge to new concepts, are presented. Vocabulary development methods discussed are semantic feature analysis, semantic mapping and learning vocabulary in context. Teaching structure of expository text and outlining and relating information are the chosen methods suggested for further development of comprehension.

Sheppard, K. (1997). Integrating content-ESL: A report from the front. In M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 22–34). White Plains, NY: Longman.

This text is a summary of a national study in the United States, conducted by the Center for Applied Linguistics, regarding the scope and nature of content-based ESL programs. This study led to the creation of a database consisting of approximately 3000 programs. The study found that programs had developed to meet the demands of the rapid influx of ESL students into the school system. The programs surveyed relied heavily on the use of first language to communicate information and instruction in those languages was minimal. It was found that elementary classrooms were learner-centered and language-focused as opposed to high school classrooms that predominantly placed priority on content. A number of common strategies were identified in a cross-section of classrooms including whole language, language experience, cooperative learning, task-based learning, the natural approach and total physical response. Many schools had developed their own curricula, and a wide range of materials such as audiovisual materials, computer-assisted learning technologies and realia were used to support these programs. Broad-based assessment techniques were reported such as informal questioning, projects, journals, oral reports and traditional testing formats. Generally, there was recognition of the importance of the native language, and that a variety of conventional and innovative materials were used, alternative assessments were relied upon and schools were willing to expand their social role. Most teachers believed there was a need for more research into how best to meet their students' needs.

Short, D. (2000). Using the ESL standards for curriculum development. In M. A. Snow (Ed.), *Implementing the ESL standards for pre-K–12 students through teacher education* (pp. 103–136). Alexandria, VA: TESOL.

Short provides a framework for integrating language objectives with curriculum content objectives in the classroom.  She refers to this as the "ASCRIBER" model.  An outline of the framework is provided as well as examples of how a number of school jurisdictions have implemented this approach.  The first step in the model is Alignment which refers to the matching and blending of the core and language objectives to create a consolidated list.  Standards-setting is the selection or incorporation of appropriate assessment tools.  Curriculum is the process by which the consolidated language and content objectives are laid out in particular courses over the duration of the learners' time in the school or program.  Retooling is the process by which courses are developed and the professional development needs of the teaching staff are met.  Implementation of the new program is planned for and resources are acquired.  Benchmarks to chart the progress toward standards and objectives are developed and the new program is implemented.  The "ASCRIBER" model is cyclical in nature as the final two steps are Evaluation of the program and Revision informed by the evaluation, and the process begins again.  This model is intended to help school systems develop a model of delivery that will best work for their educational context.

Short, D. J. (1991). Integrating language and content instruction: Strategies and techniques. ERIC No. ED338111, http://www.eric.ed.gov (Accessed March 17, 2008).

This article is filled with practical strategies for teachers based on the notion that a child's education is the shared responsibility of both content and language teachers.  Guiding principles that are evident in all strategies presented are that modification of language and materials is necessary to provide comprehensible input, the use of multiple media enhances comprehension, students' thinking skills must be enhanced and instruction must be student-centered.  The author categorizes her suggested strategies and lists each one with a brief description as follows.

*Preparation*
Teachers should:
- observe each other in order to gain insight into each other's practice; the content teacher should observe the language teacher and vice versa
- collaborate to identify language and/or content challenges
- examine content materials together to select a theme and identify objectives of units for both language and content
- identify key terms
- look for appropriate supplementary materials
- adapt written materials.

*Helping language learners adjust*
Teachers should:
- announce objectives and activities at the outset of the class
- write legibly
- develop and maintain routines
- list and review instructions step-by-step
- present information in various ways to provide multiple entries into content
- provide frequent summaries.

*Adjust teaching style*
- Lessons should be student-centered.
- Teacher talk should be adjusted and reduced.
- Higher-order tasks should be increased.
- Teachers must recognize that students will make language mistakes.

*Teaching multilevel classrooms*
- Cooperative learning is a priority, particularly peer tutoring.
- Process writing should become a mainstay.
- Discovery learning and inquiry learning need to be fostered.
- Useful task types are gaps, interviews and questionnaires.

*Motivating students and building background knowledge*
- Useful tasks are semantic webbing, listening tasks, class discussion, KWL, small-to-large group sharing.
- Useful materials are realia, graphics and graphic organizers.

*ESL teaching techniques can be moved into the content classroom*
- Use of realia, demonstrations, multimedia, hands-on, music and sustained silent reading.

*Meeting cognitive needs of learners must be a priority*
- Initial exploration of topics should be done through oral work; expansion and further work on the topic should be pursued through reading and writing.
- Consideration for various learning styles should be made.
- Teachers should teach thinking and study skills, and develop awareness of text features.
- Scaffolding and models for writing should be provided.

*Checking comprehension*
- Many opportunities to check comprehension should be built into lessons through sentence strips, journals, role playing, reading logs, cloze exercises, summaries, experiments and a language experience approach.

*Lesson plans*
- Should focus on principal vocabulary, oral practice, and collaboration and use of appropriate materials.

Stoller, F. L. (2002). Project work: A means to promote language and content. In J. C. Richards & W. A. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 107–120). New York, NY: Cambridge University Press.

Stoller posits that project work is an important part of any content-based language classroom, which allows for alternative assessment, cooperative learning, teaching of integrated skills, strategy training with frequent use of graphic organizers and scaffolding. These classroom characteristics lend themselves to project work. Projects are thematic in nature, meaningful, student-centered, cooperative and can incorporate elaborate, complex tasks. This article also includes an outline for planning and implementing projects in 10 steps.

1. Select theme.
2. Determine outcomes.
3. Structure the project.
4. Prepare students for language they will need.
5. Gather information.
6. Prepare students for language they will need.
7. Compile and analyze information.
8. Prepare students for language they will need.
9. Present final project.
10. Evaluate.

Stoller, F. L., & Grabe, W. (1997). A six-t's approach to content-based instruction. In M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 78–94). White Plains, NY: Longman.

The "Six-T's Approach" is a thematic approach that is based on the three basic principles that theme-based instruction is central to language and content learning, language learning can be incorporated into any content material chosen by educators, and organization of resources and delivery is central to language learning. The six t's stand for:

- themes: the broad or central idea
- texts: resources used to support the theme
- topics: subunits of study within the theme
- threads: linkage across themes
- tasks: basic units of instruction
- transitions: objectives or actions in the classroom that are coherent across themes.

This text walks the reader through the process of developing curriculum with these six guiding principles. The authors point out that it is necessary to strive for a balance of language and content objectives and that it is also prudent to refrain from overwhelming learners with too much content while, at the same time, always keeping objectives in mind.

Zehler, A. M. (1994). Working with English language learners: Strategies for elementary and middle school teachers. ERIC No. ED381022, http://www.eric.ed.gov (Accessed March 17, 2008).

Zehler begins with a brief discussion of language learning principles such as understanding cultural difference, children need time to learn a language, there is a difference between conversational and academic language, learning a language is difficult and children learn in different ways. Following this introduction she categorizes general characteristics of what language learning in the classroom should look like.

- Instruction should be predictable and accepting; e.g., learners should be accepted as equal members, it is vital to establish routine, students must know what is expected of them and expectations should be high.
- Language learning opportunities of each lesson should be maximized; e.g., ask questions that require new and extended response, create opportunities for sustained language use in multiple settings and focus on communication.
- Learners should be involved actively; e.g., ensure students are aware of their own responsibilities in learning, use discovery and cooperative learning, create relevancy, use thematic integration and promote higher-order thinking skills.
- Support for learning should be provided; e.g., modify language, use realia, multimedia and graphic organizers, allow extra time, and promote collaboration and use of first language.
- Diversity should be embraced; e.g., encourage sharing among learners.

To accomplish these things the author suggests that collaboration among teachers, and between the school and community needs to be fostered.

# PART II:
## How Can Schools Best Identify ESL Students with Special Education Needs, Diagnose Their Learning Needs and Provide Effective Programming?

## Introduction[1]

The disproportionate representation of ESL students in special education is a growing trend in many educational contexts.  This is primarily due to the increased linguistic and cultural diversity represented in many Canadian schools (Cloud, 1993; Hoover & Patton, 2005).  Instructors and administrators alike may be unfamiliar with methods to effectively distinguish between normal second language acquisition characteristics and the characteristics of a learning disability (Case & Taylor, 2005).  Cultural and affective variables may also lead to misdiagnosis if an ESL diverse student experiences some difficulties adapting to the norms and values of the new learning context, which may be inappropriately perceived as a learning disability. Consequently, ESL students risk being under- or over-represented in special education classes (Barona & Barona, 1987).  The process of properly identifying, assessing and placing second language learners in special education requires some unique considerations.  Educational practitioners need to consider programming that is "double-sheltering"; i.e., instruction that provides effective language acquisition instruction and accommodates learning difficulties (Artiles & Ortiz, 2002).

The following literature review explores relevant research on how to effectively identify learning disabilities in ESL students and provide effective programming.  It will also explore the trend of over- and under-identification of ESL students in special education classes.  This review will enable educational practitioners to access resources and knowledge for designing instructional strategies for ESL students with special needs through multicultural models of assessment.  The process of facilitating such a task entails promoting increased collaboration between ESL instructors and special education instructors to ensure the specific language and learning needs of second language learners are met.  This may include involving experts from the community to aid in effective assessment and programming.  Content teachers will also benefit from increased awareness, since ESL students are invariably learning about language through content-driven instruction.  Finally, this review will discuss the importance of parental and community involvement in the identification, assessment and placement process to ensure that the specific needs of second language learners with learning disabilities are met.

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1. Some terms used throughout the review stem from a deficit model way of thinking that does not necessarily reflect the purpose of this review.  The authors wished to remain faithful to the terminology used in the articles and, therefore, a variety of terminology will be found throughout the document.

## Intelligence (IQ) Tests

Culturally and linguistically diverse students should not be assessed for learning disabilities in the same way as their Canadian-born, monolingual peers.  Research shows that standardized assessment tools such as IQ tests are not effective for determining whether a diverse student has a learning disability and may result in misdiagnosis and/or misplacement in special education.  IQ tests are commonly employed in many North American schools and have traditionally been considered a reliable means of assessing for learning disabilities.  IQ tests require a degree of linguistic and cultural background knowledge and are inherently biased.  As Gunderson and Siegel (2001) posit, "most ESL students do not possess the complex second language and second cultural knowledge required to succeed in such [test] situations."  In addition, the individual administering the test "may not have the knowledge of the student's first culture or first language to be able to differentiate discrepancies from differences" (p. 52).  Because of this, ESL students face a higher risk of scoring poorly on IQ tests, regardless of whether they experience learning difficulties or not.

Alternative methods to assessment should be considered.  Translating standardized tests into the child's first language is insufficient since assumptions about a child's background knowledge and experiences remain unchanged.  Rather, assessments should be done in a child's native language or language of proficiency and administered with regard to cultural backgrounds and histories that may impact test results.  Research indicates that learning difficulties are better measured by assessing a learner's phonological and syntactical skills as well as memory skills (Aaron, 1991; Lipka, Siegel, & Vukovic, 2005).

### References

Aaron, P. G. (1991). Can reading disabilities be diagnosed without using intelligence tests? *Journal of Learning Disabilities, 24* (3), 178–186, 191.

This study explores alternative methods for diagnosing ESL students with reading disabilities.  Often achievement exams such as IQ tests are used to assess the "ability" of students to determine whether they experience reading difficulties.  However, such tests are often inaccurate as they do not consider a student's "learning potential."  This study used listening comprehension and other reading-related tasks to determine a differential diagnosis of reading capacity.

One hundred and eighty children in grades 3 to 8 were assessed for reading difficulties using listening comprehension and other reading-related activities.  Students were also administered an IQ test.  These tests provided comprehensive results that determined each participant's listening comprehension, reading comprehension, and decoding skills and reading speed as compared to what little accurate information could be gathered from IQ test results alone.  Although the study was administered to a predominantly white middle class student body, studies such as this are further support for the need for using alternative methods to assess the skills of culturally and linguistically diverse students.

Gunderson, L., & Siegel, L. S. (2001). The evils of the use of IQ tests to define learning disabilities in first- and second-language learners. *The Reading Teacher*, *55* (1), 48–55.

This article aims at discrediting the widespread assumption that IQ test results can be used as reliable indicators for learning disabilities in children, particularly among ESL students. From a research perspective no proven relationship between reading ability and IQ scores exists. IQ tests are written from a cultural and linguistic bias and assume English language proficiency, which is particularly meddlesome for ESL. There is a high risk for misdiagnosis when such an assessment tool is used. Reading ability is better linked to background knowledge or phonological skills. Intelligence tests are inappropriate for the assessment of learning disabilities in young ESL students. The authors recommend that teachers trust their own instincts and careful observations rather than relying on IQ test results.

Lipka, O., Siegel, L. S., & Vukovic, R. (2005). The literacy skills of English language learners in Canada. *Learning Disabilities Research & Practice*, *20* (1), 39–49.

This article evaluates contemporary research findings relating to the English literacy levels of ESL students in Canada. The article also explores the mechanisms by which reading disabilities are identified in the Canadian educational context. According to the article, studies indicate that it is important not to rely on oral language capabilities as an indicator of a reading disability. IQ tests have also customarily been used as an indicator for reading disabilities but have proven inaccurate. According to the authors, reading disabilities in young ESL students should be based on standardized assessments that are more comprehensive and may include testing of reading spelling and writing. Studies indicate that ESL students with measurable deficiencies in phonological awareness, syntactic awareness and working memory could be at-risk for a reading disability. These are the same measures used to diagnose reading deficiencies in first language (L1) children. Further research is needed to confirm whether the same measures of assessment used for diagnosing L1 learners as reading disabled can be used for ESL students.

## Over-representation of ESL Learners in Special Education

The over-representation of ESL learners in special education can be attributed to a variety of factors. Educational practitioners may be unaware of the unique considerations for the effective identification and assessment of learning disabilities in second language (L2) learners. Linguistic and cultural biases of the school environment can negatively impact assessment and lead to a disproportionate number of L2 learners represented in special education classes (Artiles & Ortiz, 2002). Some instructors may interpret normal L2 language acquisition characteristics as those of a learning deficiency. In addition, many diverse learners new to the Canadian educational context come equipped with learning styles and strategies that reflect native educational norms and values, some of which may diverge from the norms and values of the new learning environment. These discrepancies can lead to increased referral and placement in special education if native-born educational preferences are not acknowledged or are misinterpreted.

According to Artiles and Ortiz (2002), educational institutions assess student competence based on factors that extend beyond ability. Individual and systematic biases concerning race, gender, socioeconomic status, language and culture can impact assessment. These biases can exist and be

reinforced at a variety of levels within the educational system. They can affect ESL learner assessment for learning difficulties and can exist at the instructional, curriculum and administrative/ policy levels.

Ochoa (2005) recommends extensive teacher training in the areas of second language acquisition and cultural diversity to overcome the persisting problem of ESL learners being over-represented in special education.

**References**

Artiles, A. J., & Ortiz, A. A. (Eds.). (2002). *English language learners with special education needs: Identification, assessment and instruction*. Washington, DC: Center for Applied Linguistics.

This book offers a comprehensive overview of the issues surrounding ESL students being over-represented in special education. According to the authors, instructors "evaluate student competence" based on aspects that extend beyond ability including individual perspectives and biases with respect to race, gender, socioeconomic status, language and culture (Rueda, et al., p. 16). For these reasons, reformations are needed to the ways in which ESL students with special needs are identified, assessed, referred and instructed.

The contributors to this book recommend modifications to the three key areas of prevention and early intervention, assessment and instruction. A prevention and enhancement programming model is recommended as an early intervention method, which prioritizes efficient coordination and collaboration between programs, ensures consistency of services and emphasizes cooperation among staff members, family members and community service providers. Significant recommendations are made to the area of assessing ESL students who are referred to special education.

Since current research supports the idea that disabilities are "socially constructed phenomena," it would be inaccurate to support current assessment methods and standardized testing that treat disability as "an objective, knowable reality." In place of standardized tests, instructors should trust their own judgements and make careful observations of ESL students in a functional, supportive learning environment. In addition, it is imperative that teachers include parents in the assessment process if an accurate analysis of student performance is to be obtained.

Modifications are needed to instructional practices. Instruction that is culturally responsive is preferable for ESL students with learning disabilities. ESL students with disabilities require "double-sheltering" that provides effective language acquisition instruction and accommodates learning deficiencies. Scaffolding strategies are also discussed as potential best practices for ESL students with learning disabilities.

Finally, effective instruction of ESL students with disabilities should include collaborative, student-centered learning activities, cross-curricular language and literacy instruction, connecting school to student lives and everyday experiences, teaching complex thinking and teaching through conversation.

Ochoa, S. H. (2005). Disproportionate representation of diverse students in special education. In R. L. Rhodes, S. H. Ochoa, & S. O. Ortiz (Eds.), *Assessing culturally and linguistically diverse students: A practical guide* (pp. 15–41*)*. New York, NY: The Guilford Press.

This chapter includes information on the over-representation of diverse learners in special education to determine why this problem persists in contemporary American schools. It also offers recommendations for school-based practitioners and educators to rectify this ongoing dilemma. Some suggestions for root causes useful to this project include exploring the problematic deficit world views held by teachers when dealing with minority students, systematic deficit models, and school bias that affect and skew the instructional–referral–assessment process. Some recommended solutions to address this problem include:

- extensive teacher training and professional development on the topics of second language acquisition, intervention and what constitutes "culturally responsive teaching"; e.g., cultural responsiveness requires instructors to understand the cultural and linguistic backgrounds of students rather than assuming mainstream cultural practices
- pre-referral intervention and the advent of "universal screening programs" to avoid biases
- further research into the area particularly with regard to the over-representation of culturally diverse second language learners.

Ortiz, A. A. (1992). Assessing appropriate and inappropriate referral systems for LEP special education students. ERIC No. ED349819, http://www.eric.ed.gov (Accessed March 17, 2008).

This article discusses the over-representation of language minority students in special education. Shepard and Smith (1981) posit that "half of the students placed under the label of perceptual and communication disorders are misplaced." These inappropriate referrals are attributed to teacher perceptions about race, sex, appearance and socioeconomic status. In addition, research indicates that growing numbers of students with limited English proficiency experience difficulties that are "pedagologically induced" (Cummins, 1984); i.e., curriculum has not been effectively adapted to meet the unique needs of diverse learners. This article makes some recommendations for "pre-referral intervention" for the classroom teacher including modifications to classroom instruction and management. These recommendations include:

- working to empower, rather than disable, minority students
- increasing collaboration between schools and minority communities
- accessing cultural and linguistic background knowledge of minority students
- modifying curriculum to meet the needs of diverse learners
- modifying assessment practices that examine the learning problem "in light of all contextual variables affecting the teaching–learning process, including teachers, students, curriculum, instructional approaches and so forth."

## Under-representation of ESL Learners in Special Education

The under-identification of ESL learners with learning disabilities can be just as harmful as the over-representation of normally functioning ESL students in special education. Teachers and administrators may avoid testing ESL students at risk for learning disabilities, mistaking learning difficulties as normal second language production. In addition, some instructors who suspect learning problems may seek to avoid identifying a learner as both ESL and special needs because they are uncertain as to how to create effective programming for these "double-barriered" students. Others may feel an accurate assessment of student skills cannot be reached until students have gained competency in the target language. However, Geva, Yaghoub-Zadeh, & Schuster (2000) found that second language learners with limited English skills could be accurately measured for potential reading difficulties by a thorough analysis of phonological awareness and memory, nonverbal intelligence, receptive vocabulary and rapid automatized naming. Avoiding testing ESL learners suspected of a learning difficulty because of limited English will only cause further problems since these learners will not be receiving the necessary instructional modifications needed to facilitate learning.

### References

Geva, E., Yaghoub-Zadeh, Z., & Schuster, B. (2000). Understanding individual differences in word recognition skills of ESL children. *Annals of Dyslexia*, *50*, 123–154.

This study maintains that the under-identification of reading disabilities in ESL students can be just as harmful as the over-representation of misdiagnosed ESL students in special education. Educators and school officials who avoid testing ESL learners for suspected learning disabilities because of limited English may be doing a disservice to ESL students at risk for reading problems. In order to cure such misdiagnoses, further research is needed into how the reading recognition skills in English as a first language (L1) children are developed in comparison to how they are developed in ESL children. Two cohort groups consisting of second language (L2) and L1 elementary students, respectively, were assembled to take part in a two-year study as a means to compare the word recognition skills of the two language groups. Research indicates that measures such as phonological awareness and memory, nonverbal intelligence, receptive vocabulary and rapid automatized naming could be used to predict reader success in ESL learners.

Results of the two-year longitudinal study revealed that L1 children had better knowledge of vocabulary as well as increased success with rapid automatized naming but that these discrepancies diminished over time. Phonological awareness and memory did not reveal significant differences between the two groups and, as anticipated, these measures proved to be strong predictors of word recognition skills in both language groups, particularly for the ESL learners. The process of word recognition skill development is similar, though not entirely, in L1 and L2 children learning to read in English. Therefore, the idea that reading deficiencies in ESL students can only be diagnosed once language proficiency has been obtained is inaccurate.

## Systemic Barriers to Assessment

Culturally and linguistically diverse students with special education needs may encounter systematic barriers that marginalize and affect their ability to achieve success in school. These can lead to over- or under-representation in special education. Schools that assume a homogenous student body tend to disenfranchise diverse students and their unique learning needs. These biases can be identified in instructional practices and faculty/staff beliefs, classroom curriculum and administrative policies.

Faculty/staff may hold certain beliefs and assumptions about race, class, language, ethnicity and disability that affect the ways in which ESL learners with special education needs are identified and assessed (Cloud, 1993; Pugach & Seidl, 1998). Deficit world views that disenfranchise diverse students and their capabilities and knowledge have created barriers to success for some students and have often led to inappropriate referral to special education. In addition, biases located within a curriculum that assumes a particular cultural background and a certain level of proficiency in English can be troublesome for some ESL learners (Cummins, 1984). Struggles with the curriculum content can be mistaken for a learning disability if an instructor is not cognizant of the barriers created by these linguistic and cultural preferences, which are often "invisible" to members of the dominant culture.

Finally, Cummins (1984, 1989) discusses educational and administrative policies that "handicap" culturally and linguistically diverse students rather than empower them to succeed. He argues that the term "disability" has traditionally been viewed as a measurable skill, capable of being assessed objectively and without regard to context and culture. This deficit model views disability as the responsibility and "fault" of the learner, and not as an outcome of the learner's interaction with the school culture which, as already noted, can contain bias. Educational practitioners need to become aware of such systematic biases if effective and appropriate assessment of learning disabilities in ESL learners is to be accomplished.

### References

Cloud, N. (1993). Language, culture and disability: Implications for instruction and teacher preparation. *Teacher Education and Special Education*, *16* (1), 60–72.

This article discusses the increasing diversity found in American schools and what educational adaptations are needed in order to meet the unique needs of culturally and linguistically diverse (CLD) students with special needs. The purpose of this paper is to discuss language, culture and disability characteristics with reference to current teacher preparation programs, and discuss prevention of incorrect placement of CLD learners in special education.

Labelling is discussed with reference to diverse children. When referring to CLD students, terms such as "different," "disadvantaged," "minority" and "limited" can be marginalizing and often detrimental to student self-confidence. The term "potentially English proficient" is suggested as a more positive descriptor and should be considered in favour of current labels that often carry negative connotations.

The three determinants of language, culture and disability need to be considered when creating effective educational programming for "whole child" instruction. The author discusses the need for educational programs that are linguistically appropriate. Educational practitioners need to consider the relationship between oral language and literacy development for second language reading instruction. In addition, competencies in first language literacy affect second language literacy development. CLD students with special needs should be encouraged to develop full first language literacy through educational programming. Instructors need to consider how different languages are perceived and valued in their cultural context. If children feel their native language is not valued, they may abandon their mother tongue before attaining full literacy. This may affect acquisition rates in second language development. Special education teachers need to honour and encourage first language use/development in the classroom. Unrecognized cultural biases that affect assessment tools and processes can also affect the efficacy of special education programs for CLD students. Teachers need to acquaint themselves with learner backgrounds and culture. More broadly, teacher preparation programs need to better prepare teachers to be "culturally and linguistically responsive," know how to inquire into learner backgrounds and create a multicultural classroom context. The article also discusses how to accommodate the unique learning needs each student brings into the classroom, which may include a range of emotional, behavioural and learning problems.

In conclusion, the author discusses creating a culturally and linguistically responsive classroom to prevent the inappropriate placement of CLD students without disabilities in special education programs. This occurs when the language and cultural needs of students are not met in mainstream classrooms and are mistaken for disabilities. In essence, "the level of service does not match the level of need" (p. 68). New programs and services must be designed and implemented, and teachers need to become better equipped to deal with diversity in their classrooms. Reforms to teacher preparation programs and in-service teacher education are needed with emphasis on language, culture and disability.

Cummins, J. (1984). The construct of "learning disability." In J. Cummins, *Bilingualism and special education*: *Issues in assessment and pedagogy* (pp. 80–92). San Diego, CA: College-Hill Press.

This book is a synthesis of early American and Canadian research on issues facing second language learners with special education in mainstream classrooms. This chapter looks at the systematic biases that affect second language learner achievement in mainstream education. Specifically, Cummins discusses the passage of PL 94–142 in the United States and Bill 82 in Ontario. Cummins argues that these school policies "handicap" rather than help minority students. The concept of "learning disability" itself has led to some confusion in terms of legislation since the term remains ambiguous in many respects. In addition, the early intervention process is sometimes a self-fulfilling prophecy and "help[s] create the learning problems it was intended to offset." Nonetheless, early identification and intervention policies remain popular in schools. This legislation is troublesome as it positions the disability within the child and not as a need for curriculum and practice reform. Such a philosophy is evidenced by the use of IQ tests and poor academic performance as indicators of learning disabilities. Such practices lead to the inaccurate over-representation of minority students in special education. To remedy the inequalities that are detrimental to second language student development, Cummins suggests analyzing "the constructs that guide special education" as well as "the causes of minority students underachievement."

Cummins, J. (1989). Institutionalized racism and the assessment of minority children: A comparison of policies and programs in the United States and Canada. In R. J. Samuda, et al. (Eds.), *Assessment and placement of minority students* (pp. 95–107). Toronto, ON: C. J. Hogrefe.

This chapter offers early research on the over-representation of diverse students in special education classes and how disability has traditionally been viewed as "objective" and measurable. That is, learning difficulties are viewed as located within the students themselves and not because of systematic cultural and linguistic biases that favour "middle-class dominant group values and experiences." From a North American context, Cummins focuses on three areas of interest: analyzing the extent to which IQ tests commonly used to diagnose students with learning deficiencies are culturally and linguistically biased; discussing the time it takes for learners to acquire different aspects of the English language; and discussing the notion of bilingualism, bilingual identity and native language use at home.

Research indicates that questions from *Wechsler Intelligence Scale for Children—Revised* (WISC-R) require both English language proficiency and an awareness of experiences that are specific to a "middle-class North American milieu." Since many ESL learners have not had as much exposure to these experiences, IQ tests are generally biased and inaccurate predictors of whether an ESL student is learning disabled. In addition, on average, it takes five years to develop the academic language skills necessary for such intelligence tests. ESL students often develop conversational second language proficiency before academic language proficiency and this can lead to wrong assumptions about a student's language capabilities. Cummins discusses the importance of native language use at home. Parents who opt to use the school language often are poor models of English language use. He feels effective communication at home leads to success at school.

Pugach, M. C., & Seidl, B. L. (1998). Responsible linkages between diversity and disability: A challenge for special education. *Teacher Education and Special Education*, *21* (4), 319–333.

This article discusses current issues in special education pertaining to the American educational context. The article discusses how current educational modalities work to include and promote the needs and values of the dominant culture while excluding those who are linguistically and/or culturally marginalized. The article offers areas for improvement by extending services to those traditionally disadvantaged by the system. Dialogue is needed among special education practitioners to discover individual perspectives concerning race, class, language, ethnicity and disability. It is not enough to assume that special education teachers would know and understand the relationship between disability and other societal issues. In addition, culturally responsive teaching practice needs to be embedded into teacher preparation programs.

## Linguistic Considerations for Assessment

Practitioners may have difficulty distinguishing between language development characteristics and the characteristics of a learning disability (Case & Taylor, 2005). Linguistic errors caused by normal language development in ESL students can sometimes resemble linguistic errors caused by learning difficulties resulting in the misplacement of ESL students in special education. Specifically, demonstrated errors in the areas of pronunciation, syntax and semantics caused by normal second language development can resemble those caused by a learning disability in monolingual speakers of English. They may share difficulties with the omission, substitution and addition of word sounds as well as difficulties with word order, negation and figurative language (Case & Taylor, 2005). Paradis (2005) also noted many similarities in the language production characteristics of normal-functioning ESL learners and monolingual speakers of English with learning disabilities. Therefore, ESL learners cannot be assessed for learning disabilities using the same criteria as their monolingual peers. A solid understanding of language development processes and how second languages are acquired and affected by a student's native culture and language is necessary for the successful assessment of ESL students for learning difficulties.

### References

Case, R. E., & Taylor, S. S. (2005). Language difference or learning disability? Answers from a linguistic perspective. *Clearing House*, *78* (3), 127–130.

This article highlights some of the difficulties educational practitioners have in distinguishing between normal language development difficulties and learning deficiencies in ESL students. As the authors suggest, "it may be difficult to determine their literacy level because ESL students' different cultural backgrounds form their individual understandings of literacy and schooling." Focusing specifically on the areas of pronunciation, syntax and semantics, the article offers insight into what types of linguistic errors are common to both students with learning disabilities and normal functioning ESL students. In terms of pronunciation, English language learners and students with disabilities might demonstrate similar errors with the omission, substitution and addition of word sounds. Both groups might have comparable difficulties with word order and negation. Figurative language such as similes and metaphors might prove difficult as well.

The article offers suggestions for best practices in creating an inclusive learning environment conducive to second language acquisition. Recommendations include:
- facilitating access to oral language comprehension
- modifying a teacher's speech appropriately to ensure understanding; e.g., slowing the rate of speech, using repetition and paraphrasing, and avoiding colloquialisms
- encouraging first language to support second language acquisition and increase student confidence
- providing ample opportunities for reading.

Paradis, J. (2005). Grammatical morphology in children learning English as a second language: Implications of similarities with specific language impairment. *Language, Speech and Hearing Services in the Schools*, *36* (3), 172–187.

This study looks at the expressive language characteristics of 24 normal functioning ESL students for the purposes of discovering whether these are similar to the language characteristics exhibited by monolingual children with learning impairments. The grammatical morphemes analyzed in this study include:
- third person singular [–s]
- past tense [–ed]
- irregular past tense
- "*be*" as a copula and auxiliary verb
- "*do*" as an auxiliary verb
- progressive [–*ing*]
- prepositions "*in*" and "*on*"
- plural [–*s*]
- determiners "*a/the.*"

Results indicate that error patterns with the grammatical morphemes were shared by monolingual children with learning disabilities. Implications of this research support the notion that normal functioning second language learners could easily be diagnosed as learning disabled. Language assessment tools designed for monolingual populations are not appropriate for determining the linguistic capabilities of multilingual students.

## Bilingual Assessment

When assessing for developmental language disorders in bilingual/dual language learners, it is best to:
- assess learners in their dominant or preferred language, even if this language is other than English; the individual administering the assessment should speak the child's language
- complete a thorough assessment of the learner's language use in multiple school, social and community settings
- remember that learning a second language will not affect first language acquisition, particularly if the first language is that of the surrounding speech community.

**References**

Genesee, F., Paradis, J., & Crago, M. B. (2004). Assessment and intervention for children with dual language disorders. In F. Genessee, *Dual language development and disorders: A handbook on bilingualism and second language learning* (pp. 193–213). Baltimore, MD: Brookes Publishing.

This chapter provides information for understanding and recognizing language impairment in culturally and linguistically diverse children. It provides insight into the assessment and intervention of developmental language disorders in bilingual/second language learners. Eight case studies of children suspected of having language impairments are described. Each case study is discussed separately since

every child, like every language disorder, is unique.  The cases are discussed with reference to specific assessment and intervention issues.  Some key recommendations discussed include the following.

- Completing a bilingual assessment in the child's dominant language.  Often, bilingual children will show preference towards one language, particularly if the two languages are learned simultaneously.  Resource persons who speak the child's majority language should be accessed.  Bilingual speech pathologists are desirable.  Note: It may not be a good idea to translate English standardized tests into another language since the norms will not apply to a translated version.
- Accounting for the lack of standardized norms for bilingual children who have taken standardized tests. These children cannot necessarily be held to the same standards as their monolingual peers.
- Understanding that for children with specific language impairment, learning a second language will not affect first language acquisition skills or academic progression.
- Observing a child's language use in multiple settings and not solely in the classroom.

## "Culture-fair" Models of Assessment

Multicultural models of assessment are proposed in a variety of contemporary research findings.  Such models are alternatives to traditional methods of assessing ESL learners for learning disabilities that have proven inaccurate and led to the misplacement of second language learners in special education.  These dynamic models consider the interplay between language, culture and disability.  Some common characteristics of the proposed models are to:

- consider the systematic conditions; e.g., government, legislative, administrative conditions that can either support or hinder the appropriate assessment and placement of ESL learners in special education classes
- consider the variety of external factors that can potentially influence a child's performance at school, which may include a student's lifestyle, culture and community, background and language used at home; i.e., a thorough pre-assessment must be done prior to the assessment phase
- consider the methods of assessing students' ability commonly used in school such as an analysis of grades, assignments and achievement tests; e.g., assess whether these contain cultural or linguistic biases that have impacted results
- view "disability" as a product of a child's interaction with his or her environment both in and outside of the classroom, thereby removing blame from the learner
- enable students to be assessed in their first/dominant language; i.e., these should not be standardized exams written in English and then translated into the student's language
- identify and limit cultural and linguistic biases located within curriculum
- increase awareness of second language acquisition processes as well as the characteristics of various learning disabilities for teachers and practitioners; i.e., this may include training on cultural sensitivity and competency, or improving access to experts in these areas to provide insight and engage in the pre-assessment/assessment process
- consider a wide variety of potential causes that lead to difficulty that extend beyond disability such as trauma, affective variables and emotional issues
- involve the parents as much as possible in pre-assessment and assessment processes; i.e., if a language barrier exists, translators can be hired to facilitate communication and a practitioner might also consider involving members of the community or community development agencies, if required
- view every child as capable of learning.

**References**

Barona, A., & Barona, M. S. (1987). A model for the assessment of limited English proficient students referred for special education services. In S. H. Fradd & W. J. Tikunoff (Eds.), *Bilingual education and bilingual special education: A guide for administrators* (pp. 183–210). Boston, MA: Little, Brown.

This book chapter discusses the difficulties educational institutions have in effectively assessing and diagnosing English language learners as special needs. As the authors describe, "limited English proficient and culturally diverse students are at high risk for premature labelling, misclassification, and inappropriate assessment." This chapter provides a multicultural model for effective assessment of second language learners referred for special education.

This model provides a spectrum of assessment styles, which include systems, environmental and student-centered approaches to assessment. A systems approach involves determining the interventions/reformations needed to governmental, legislative and educational organizations. The environmental approach considers outside factors that may affect a student's performance at school such as student's lifestyle and supporting community, which affect how a student is perceived at school. A student-centered approach takes into consideration items that are directly related to student ability such as grades and scores on achievement tests. The formal assessment process is comprehensive.

When identifying and assessing culturally and linguistically diverse students for learning disabilities, the authors recommend taking the following steps.

- Engage in a thorough pre-assessment including gathering information about developmental and health history, past academic records, personal experiences and home life. Teachers should also be provided with training/professional development dealing with diverse students and distinguishing between learning disability characteristics and language acquisition characteristics.
- Engage in a thorough language assessment, which includes meeting with parents to determine the language used at home. Language skills should be assessed with an awareness of the limitations of particular language tests.
- Intelligence assessment, which could include nonverbal intelligence tests and translated intelligence tests.
- Teachers and administrators should also consider a variety of disabilities, which may include emotional and behavioural issues, and learning disabilities. Different assessments are recommended for different disabilities.

Cline, T. (1998). The assessment of special educational needs for bilingual children. *British Journal of Special Education*, *25* (4), 159–163.

This article makes some recommendations for modifications to the identification–referral–assessment process when diagnosing bilingual children as special needs. These recommendations include the following.
- Developing a "culture-fair" assessment tool, with minimized cultural biases that may skew test results.
- Assessing a child in his or her first language. Learning problems exhibited in the first language will, most likely, transfer to the second language.
- Exposing teachers, trainers and staff working with children with diverse needs to cultural sensitivity training. Community liaisons could be established to help the teacher make connections with student's background/culture.

Pena, E., Quinn, R., & Iglesias, A. (1992). The application of dynamic methods to language assessment: A nonbiased procedure. *Journal of Special Education*, *26* (3), 269–280.

This article discusses alternative methods to assessing and diagnosing second language learners as special needs. Traditional methods to assessment are inherently biased and new methods to assessment are needed. Assessment tools need to analyze the "potential" for learning based on previous experiences and knowledge. This article suggests a dynamic assessment model, which "changes the roles of the child and the examiner to ones that are interactive and process oriented." Three Head Start classes with 20 students participated in this study. Students were predominantly Spanish and English speaking and exposed to both languages in class. Students were administered two standardized tests—the *Expressive One-Word Picture Vocabulary Test* and the *Comprehension Subtest* of the *Stanford-Binet (CSSB) Intelligence Scale*. Students were also observed by the researchers in their classroom environment. Students were identified as possibly language disordered (PLD).

Results indicate that the CSSB test considered the specific values and experiences of participating children and is, therefore, preferred for distinguishing between nondisabled and PLD learners as compared to standardized tests that treat knowledge as separate from culture and experiences. Findings on all accounts confirm that dynamic assessment is a nonbiased means of measuring language ability in diverse students.

## Culturally Responsive Teaching

Teachers may unintentionally contribute to the marginalization and disenfranchisement of culturally and linguistically diverse students with special education needs. Modifications to instructional practices may be necessary to ensure that the needs of diverse students with disabilities are met. Content instructors are inescapably language teachers and should endeavour to teach explicit language instruction through content instruction. If a teacher is unsure of how to facilitate language instruction in his or her content class, specialists in the areas of second language acquisition, ESL and special education should be accessed. In fact, increased collaboration between specialists and content teachers is recommended for the purpose of creating effective programming for second language learners with special education needs (Ortiz, 2001). Instructors may also wish to connect with experts within the community to strengthen their skills in these areas.

Most importantly, a solid understanding of students' linguistic capabilities and personal backgrounds will help in tailoring instruction to suit the specific needs and capabilities of learners. Connecting curriculum content to student lives and experiences/culture may help in increasing student motivation to learn or the ability to retain information (Gersten, Baker, & Marks, 1998; Ortiz, 2001). In addition, each class should be taught using the principles of intentional language instruction where an instructor modifies "teacher talk" to ensure that all language used in class is clearly understood by each learner and works to develop language skills (Beckett, Nevin, Comella, Kane, Romero, & Bergquist, 2002). This could include vocabulary-building activities, using consistent language, and visual aids (Gersten, Baker, & Marks, 1998). Modifications are needed to ensure that student language development and learning development are met. These modifications are referred to in research as culturally responsive or culturally inclusive classroom teaching (Ortiz, 1997; Ortiz, 2001).

**References**

Beckett, C., Nevin, A., Comella, S., Kane, N., Romero, P. & Bergquist, G. (2002). *Meeting the special needs of dual language learners with disabilities: Integrating data based instruction and the standards for teaching English for speakers of other languages*. Paper presented at the Annual Meeting of the Council for Exceptional Children/Arizona Federation. ERIC No. ED464429, http://www.eric.ed.gov (Accessed March 17, 2008).

This article proposes combining purposeful language instruction with "databased instruction" (DBI) used by special education instructors. Adding an intentional language component to classroom instruction is essential to ensure that the language acquisition needs of second language learners are met. According to TESOL standards, intentional language teaching involves thoroughly assessing students' existing language skills and designing modifications to regular classroom content based on TESOL objectives. DBI entails planning lessons that are sensitive to the unique developmental needs of second language students with special needs. The DBI process allows instructors to provide documentation of modifications to instruction for second language learners with special needs, evaluate these instructional modifications to continuously monitor the academic performance of second language learners with special needs, and make connections between instruction and assessment.

Gersten, R., Baker, S., & Marks, S. U. (1998). Teaching English-language learners with learning difficulties: Guiding principles and examples for research-based practice. *ERIC Clearinghouse on Disabilities and Gifted Education*. ERIC No. ED427448, http://www.eric.ed.gov (Accessed March 17, 2008).

This special project provides many insights for teachers working with ESL students with special education needs. The project provides a thorough description for creating comprehensible input, which involves modifying "teacher talk" so that it is understood clearly by students. Ensuring comprehensible input for ESL students with special needs means they have general access to the curriculum. Students with special needs are entitled to effective instruction where key "grade-level concepts" are taught and understood.

Some recommendations for effectively meeting the educational needs of ESL students with special needs are made, including the following key recommendations.

- Modifying instruction based on what is known about student background and experiences.
- Using methods for vocabulary building, which includes a list of "problem" words for ESL students. Vocabulary instruction should focus on a smaller number of crucial words.
- Providing opportunities for the use of English in academic and social settings.
- Using visual aids such as story and vocabulary maps is recommended.
- Creating a good "language model" for students. Using concrete examples to clarify abstract ideas. Using many examples to clarify points.
- Using consistent language when explaining concepts and ideas.
- Using peer tutoring to encourage discussion and comprehensible interaction.
- Being flexible with time.

Gersten, R., Baker, S., Marks, S. U., & Smith, S. B. (n.d.). Effective instruction for learning disabled or at-risk English language learners: An integrative synthesis of the empirical and professional knowledge bases. http://www.ncld.org/content/view/519 (Accessed March 17, 2008).

This article provides an overview of research pertaining to effective instructional strategies for second language learners with special education needs. One recommendation is for teachers to incorporate explicit language instruction into content area instruction. Teachers need to provide sufficient opportunities to practise English oral language and writing, ensure modifications such as introducing no more than seven new vocabulary words for each lesson, encourage and facilitate peer tutoring and correction, and use visual aids. Teachers also need access to background knowledge and first language. In addition, further research is needed into intervention practices for second language learners with special needs.

Ortiz, A. A. (1997). Learning disabilities occurring concomitantly with linguistic differences. *Journal of Learning Disabilities*, *30* (3), 321–332.

This article discusses the necessity of providing culturally inclusive classroom environments and effective instruction to ESL students at risk for academic failure. Bilingual programming should be offered for the purposes of developing first language and second language linguistic competency. In addition, parents should not discourage their children from using first language in the home. There needs to be increased collaboration between the school and community organizations to offer additional supports to teachers and parents. Cultural sensitivity training for staff and administration is recommended to eliminate biases and ensure equitable treatment of minority students. The article also makes some key recommendations for assessing whether a student is eligible for special education or not. The author discusses the necessity of individualized education programs for ESL students that address the "disability-related issues" as well as the linguistic needs of the child. Teacher preparation programs need to better prepare teachers for working in an increasingly diverse classroom context.

Ortiz, A. A. (2001). English language learners with special needs: Effective instructional strategies. *ERIC Digest*. ERIC No. ED469207, http://www.eric.ed.gov (Accessed March 17, 2008).

This article provides an overview of the ways in which the specific needs of ESL students can be met for the purposes of avoiding academic failure. The article makes several key recommendations for instructors of linguistically and culturally diverse students. These include: increased collaboration among educators for the purposes of circulating best practices used for ESL learners; recognition of first language; increased communication between education and community sectors and increased support from community services and organizations; program design that is academically rich; and effective instruction. According to the authors, all five of these criteria must be met before an ESL student should be considered for assessment of a learning disability. The article also makes recommendations for effective intervention techniques that can be used with struggling second language learners. Instructors and administrators need to ensure they are providing high quality education/intervention to their English language learners to avoid over-representation in special education programs.

Rousseau, M. K., Tam, B. K. Y., & Ramnarain, R. (1993). Increasing reading proficiency of language-minority students with speech and language impairments. *Education and Treatment of Children*, *16* (3), 254–271.

In this study, the authors explore the issue of over-representation of language minority students in special education programs due to a lack of academic English. Based on the premise that oral language fluency is an indicator of reading comprehension, five Hispanic Grade 6 students from the same special education class and with speech and language deficiencies were administered two treatments for improving oral reading ability—one treatment involved listening previewing and the other focused on discussion of key words. The purpose of the study was to determine which of the two treatments was more effective relative to the outcomes of the two treatments administered together. Results indicate that the two treatments used together were indeed more effective for improving the oral fluency levels as well as reading comprehension levels of the language minority participants. Such treatment, according to the authors, might help practitioners to rapidly improve the academic language proficiency of language minority children and avoid misdiagnosing them as students with special education needs.

## Cultural Sensitivity Training for Teachers

In addition to gaining an awareness of second language acquisition processes, it is important for teachers to connect with the cultural norms and values of students. As previously noted, the ability to connect classroom content to the everyday lives and experiences of students is important. Teachers should gain an awareness of their own norms, values and biases and how these may impact instructional practices. Some teachers may unintentionally assume cultural homogeneity among students, thereby neglecting the unique histories of students. As Fowler and Hooper (1998) argue, some schools are "designed to support students who have English as their first language." Cultural sensitivity training, whether through teacher preparation programs or teacher in-service opportunities, will enable teachers and administrators to develop the skills necessary for establishing multicultural and multilingual learning environments where diversity is embraced.

Instructors can work to honour the backgrounds of ESL learners with special needs and also facilitate second language acquisition by:

- encouraging first language use at home and accessing it in the classroom to connect first language skills and knowledge to the second language
- assessing the child's strengths rather than weaknesses; i.e., assessing for what the child knows and can bring to the classroom, rather than for what the child lacks (Fowler & Hooper, 1998)
- connecting with experts in the school and greater community to provide insight on language, culture and disability
- gaining an awareness of one's own norms, values and cultural practices.

**References**

Fowler, J., & Hooper, H. R. (1998). ESL learners with special needs in British Columbia: Identification, assessment, and programming. http://www.bctf.bc.ca/uploadedFiles/Publications/ESL-SpecialNeeds.pdf (Accessed March 17, 2008).

This report, commissioned by British Columbia's Ministry of Education, Skills, and Training, provides information on effectively identifying, assessing and treating ESL students with special needs.  The report provides a description of current research and best practices for ESL students. The report also makes some recommendations for improving identification, assessment and programming for second language learners with special education needs.

As the report describes, "our school is primarily designed to support students who have English as their first language" since systematic cultural biases can put ESL students at risk.  These biases affect successful identification, assessment and programming for linguistically and culturally diverse students.  More specifically, culturally biased modes of identifying and assessing ESL students with special needs may lead to:

- over- or under-referral of culturally and linguistically diverse (CLD) students to special education
- inaccurate assessment because of standardized testing that assumes cultural and linguistic homogeneity among Canadian students
- an over-reliance on standardized tests for the purposes of assessing students' cognitive development and academic progress
- deficit models of assessment, which identify student deficits rather than strengths and do not follow the current mandate in British Columbia for a "whole-child" approach
- lack of collaboration between practitioners and community professionals.

Some report recommendations for best practices for working with CLD students with special education needs are:

- gaining an awareness of one's own cultural practices and biases that affect how CLD students are perceived
- encouraging native language use at home
- encouraging students to connect with native culture
- increasing collaboration between home and school
- acknowledging that student assessment is an ongoing process
- establishing a culturally responsive classroom environment.

A more comprehensive approach to pre-referral and identification includes gathering information from a variety of sources, e.g., teachers, parents, cultural/linguistic mediators and support staff, for the purposes of composing a descriptive and thorough profile of a student's background.  This is necessary before a student is recommended for assessment of a learning disability.  Broad recommendations to assessment include continuously exploring alternative methods of assessment, and questioning one's cultural assumptions and how these might affect assessment.

Finally, some recommendations for effective programming for CLD students with special needs are:
- developing appropriate program support that is reciprocal and works to empower students and increase motivation
- enabling the shift toward "an inter-disciplinary team model of support," which includes professionals working within the classroom and making recommendations that fit the classroom culture.

Layton, C. A., & Lock, R. H. (2002). Sensitizing teachers to English language learner evaluation procedures for students with learning disabilities. *Teacher Education and Special Education*, *25* (4), 362–367.

This article discusses the difficulties educational practitioners have in distinguishing between normal second language acquisition characteristics and those caused by learning disabilities in ESL students.  Normal functioning ESL students may demonstrate: a lower rate of learning; a lack of communicative competence, particularly in academic language; behavioural problems, such as inability to follow directions, lack of focus and lack of eye contact; difficulties reading; difficulties exercising conceptual language; and literacy-related deficiencies such as the ability to narrate and employ language abstractly, through metaphors, similes and allegory.  All of these characteristics may be interpreted by instructors as symptoms of a learning disability.  Such misinterpretations on the part of the teacher may lead to misdiagnosis and contribute to "issues associated with identification, assessment and placement" of linguistically diverse students in special education programs.

Two groups of special education teachers, one with additional training in instructional language assessment and one without, were asked to complete a survey that examined teacher ability to effectively evaluate performance and to distinguish between normal functioning ESL students and ESL students with learning disabilities.  Results indicate notable differences between the trained and untrained groups on 82% of the study. The trained group of teachers benefited greatly from the additional training and was able to suggest effective evaluation procedures for ESL students and ESL students with disabilities.  Although the study was quite small, after evaluating the responses of all 18 teachers, the results support the need for teacher training in the areas of second language acquisition process and effective evaluation procedures, which are "critical to a teacher's ability to discern the subtle differences between typical language development and the presence of concomitant learning disabilities."

Warger, C., & Burnette, J. (2000). Five strategies to reduce overrepresentation of culturally and linguistically diverse students in special education. *ERIC Clearinghouse on Disabilities and Gifted Education.* ERIC No. ED447627, http://www.eric.ed.gov (Accessed March 17, 2008).

This article describes the following five strategies for teachers and administrators to minimize culturally and linguistically diverse (CLD) student over-representation in special education.

- Facilitating family involvement in their child's education and respecting diversity. Cultural sensitivity training for teachers is recommended.
- Making the curriculum relevant and applicable to CLD students' lives and experiences. Material presented needs to be contextually relevant to increase student motivation to learn.
- Acknowledging and building upon students' strengths, which may include accessing the first language and culture. Teachers are recommended to encourage translation/transfer as a learning strategy.
- Enabling teacher preparation program participants to draw on first-hand experiences of divergent cultures. As Warger and Burnette contend, "there is no better way to develop understanding of a culture than to live in it."
- Providing community service support to teachers and CLD students prior to referral for special education assessment.

## Instructional Strategies for New Teachers

Schools are faced with increasing numbers of culturally and linguistically diverse students. Consequently, teacher preparation programs need to better prepare teachers to meet this diversity to ensure all students benefit from a quality education where their specific learning needs are met and individual identities are supported. Current research points to a need for increased teacher training with a focus on understanding second language acquisition processes and on creating culturally responsive school and classroom environments. Curriculum modifications that embrace diversity and enable students to access linguistic and cultural background knowledge will be of benefit to ESL learners who are adapting to a new learning environment.

Teacher preparation programs need to explicitly address themes of cultural and linguistic diversity and disability. This could involve discovering how to adapt curriculum content and create supplemental activities that are tailored to the specific linguistic needs of students. Teachers should also be enabled with the skills and tools necessary to build capacity within and beyond the school community. A community of practice approach is recommended where practitioners are able to connect with one another to share knowledge and resources. Building capacity within the community may be important as well as gaining an awareness of students' lives outside of school and connecting with community members and agencies.

**References**

Burstein, N., Cabello, B., & Hamann, J. (1993). Teacher preparation for culturally diverse urban students: Infusing competencies across the curriculum. *Teacher Education and Special Education*, *16* (1), 1–13.

This article discusses the urgent need for educational reform to traditional teaching approaches that fail to meet the needs of increasing numbers of culturally and linguistically diverse students represented in schools.  An "infusion" approach to faculty and curriculum development designed for teachers working with culturally diverse learning handicapped (CDLH) students is analyzed in this study.  The program, offered as a Master's Degree in Special Education, was completed by two cohort groups of 10 elementary and secondary teachers.  Project outcomes were to enable teachers to examine their beliefs and biases and how these, translated into classroom contexts, promote awareness about CDLH students and their needs, and to develop teacher ability to adapt curriculum to meet the needs of diverse students.  A "bottom-up" approach to the program allowed faculty to become better engaged and make decisions on how curriculum should be adapted and implemented.  Participating teachers created a community of practice and were able to actively engage in the decision-making process.

Data collected from pre- and post-program questionnaires administered to both participating teachers and employers indicate that teachers increased their competencies and knowledge of CDLH students and were better able to meet the needs of diverse learners in their classrooms.  Such research endeavours support the possibility of infusing diversity training into teacher education and professional development education.

Rodriguez, R. F. (1998). Project BESTT: Bilingual/ESL special education teacher training. ERIC No. ED462819, http://www.eric.ed.gov (Accessed March 17, 2008).

This report describes the outcomes of a federally funded project that provided a three-year teacher training program to 25 special education instructors who serve language minority students with disabilities, referred to as culturally and linguistically diverse exceptional (CLDE).  The trained professionals later served as resources in the area of bilingual special education for their schools.  The project also aimed at contributing to the body of literature pertaining to best practices for CLDE students, which included creating a better awareness of multicultural, bilingual and special education issues.  A summary of the training program and outcomes is highlighted.  Such projects serve to reinforce the need for professionals who are trained in both ESL and special education.

## Curriculum Reform

Hoover and Patton (2005) recommended differentiating curriculum and instruction as a means for justifying the discrepancies created by standardized assessment tools that are linguistically and culturally biased. According to Hoover and Patton, recommendations for adapting curriculum to suit the needs of ESL learners with special needs involve:

- connecting content to students' backgrounds, cultures and prior experiences to create authentic learning experiences
- teaching multiple skills that can be maintained over time and transferred across subject areas
- integrating language acquisition and academic outcomes
- having high expectations for student success
- engaging in active learning and inquiry-based instructional strategies.

### References

Hoover, J. J., & Patton, J. R. (2005). Differentiating curriculum and instruction for English-language learners with special needs. *Intervention in School and Clinic*, *40* (4), 231–235.

This article discusses the need for improved assessment tools and differentiated curriculum design in light of increasing numbers of English language learners in special education programs in North American schools. The article discusses some of the ways curriculum can be adapted to meet the unique requirements of second language learners with special needs. Such adaptations are contingent upon the teacher's understanding of students' cultural background, linguistic heritage, values, home environment and prior experiences. Only with these understandings can an educator hope to modify curriculum effectively. Such differentiated curriculum and instruction holds considerable potential.

The article offers a checklist of the skills necessary to modify curriculum appropriately. These include: presenting academic instruction and content that is connected to a learner's background, culture and previous experiences; presenting "multiple content knowledge and skills" that are sustained over time and across subject areas; integrating language acquisition and academic goals; maintaining high expectations of students; and engaging in active learning.

## Early Intervention for ESL Students at Risk for Reading and Learning Difficulties

Early intervention programs such as supplemental reading programs and literacy instruction are crucial for minimizing the effects of reading problems in children at risk for reading difficulties. Research shows that early reading programs designed for monolingual speakers of English are effective, though perhaps not equally, for improving the reading skills of ESL students and ESL students with reading problems (D'Anguilli, Siegel, & Maggi, 2004). Early intervention is crucial for ESL students who exhibit reading difficulties. Students should also be encouraged to continue developing literacy in their first language to develop strong literacy skills, which can then be accessed during the second language acquisition process. Further research is needed into suitable interventions to help increase the reading proficiency of ESL students who are learning an additional language.

## Explicit Reading Instruction Strategies

ESL learners with specific learning disabilities can benefit from explicit instruction on reading strategies. D'Angiulli, Siegel, & Maggi (2004) found that ESL students at risk for reading difficulties benefited from a 20-minute reading program designed for monolingual English speakers with reading problems. Slight modifications are suggested to ensure reading materials connect with the students. Linan-Thompson & Hickman-Davis (2002) and Linan-Thompson, Vaughn, Hickman-Davis, & Kouzekanani (2003) found similar results when a group of ESL students at risk for reading difficulties were administered 30-minute reading programs. The sessions focused on improving fluent reading, phonological awareness, instructional-level reading and word/vocabulary study. The group of participating ESL students benefited greatly from the specialized instruction. Reading programs designed for monolingual speakers of English modified to include specific ESL instruction have the potential to prevent reading problems for ESL students with possible reading difficulties.

### References

D'Angiulli, A., Siegel, L., & Maggi, S. (2004). Literacy instruction, SES and word reading achievement in English language learners and children with English as a first language: A longitudinal study. *Learning Disabilities Research & Practice*, *19* (4), 202–213.

This study explores the relationship between instruction, socioeconomic status and the development of basic literacy skills in ESL students to determine whether early literacy initiatives designed for at-risk first language learners are as effective for young ESL students susceptible to reading difficulties. While research concludes that socioeconomic status and reading ability are strongly correlated, little evidence exists that compares the needs of at-risk young ESL students to those of at-risk first language children. This study provides a wealth of longitudinal data, collected from 1108 students in 30 North Vancouver schools from Kindergarten to Grade 5. Participating children benefited from a 20-minute literacy program, emphasizing explicit reading instruction and strategies, which was administered three times a week in Kindergarten and four times a week in subsequent grades. Results indicate that both first language learners and young ESL students with lower spectrum socioeconomic status benefited from increased reading instruction. However, "selective" differences between the ESL students and first language cohorts indicate that discrepancies do exist between the two groups likely because of additional linguistic and cultural variables that exist for many ESL students. Still, results provide positive evidence that intensive reading programs beginning in Kindergarten will aid in improving the literacy skills of young ESL students and reduce the risk of them developing reading disabilities later on in life.

Linan-Thompson, S. & Hickman-Davis, P. (2002). Supplemental reading instruction for students at risk for reading disabilities: Improve reading 30 minutes at a time. *Learning Disabilities Research & Practice*, *17* (4), 242–251.

This article provides a useful description of a 30-minute reading program designed for at-risk students that can easily be incorporated into regular classroom activities. The study proposed to determine the efficacy of three types of intervention groupings—1:1, 1:3 and 1:10. Seventy second-grade monolingual English language speakers (MEL) and ESL students at risk for reading difficulties participated in the intervention. Each student attended 58 consecutive 30-minute sessions per day. Sessions provided instruction on fluent reading, phonological awareness, instructional-level reading and word study. Examples are provided in the appendix. Results indicate that MEL and ESL participants in each of the three types of groupings made significant gains from the intervention, which were also sustained over time. This study serves as additional support for the necessity of early reading intervention programs, preferably before the second grade for MEL and ESL students at risk for developing reading disabilities.

Linan-Thompson, S., Vaughn, S. Hickman-Davis, P., & Kouzekanani, K. (2003). Effectiveness of supplemental reading instruction for second-grade English language learners with reading difficulties. *The Elementary School Journal*, *103* (3), 221–238.

This study explores the effects of providing intensive reading instruction to a group of 26 second-grade ESL students identified to be at-risk for reading difficulties. The reading intervention program was based on one designed for monolingual English speakers with reading problems and modified to include ESL instructional methodology. Students attended 58 sessions of concentrated reading instruction daily, each lasting approximately 30 minutes. The program focused primarily on equipping students with strategies to improve reading fluency, phonological awareness, and vocabulary and word study skills. Results indicate that the majority of students who participated in the program made moderate gains, most significantly on the reading fluency measure. The study ultimately concludes that intensive reading intervention programs directed toward monolingual learners with reading problems can also be used for language minority students who struggle with reading.

## Parental Involvement: Empowering Teachers and Parents

The continuous involvement of families of ESL students with special education needs is essential. Families provide a wealth of information about a child's prior experiences, home life, linguistic background, culture and values, and behaviour outside of class. They provide ongoing feedback with regard to student growth and progress. Most significantly, they provide the necessary support to ensure language and learning needs are met and reinforced at home. The task of engaging in a productive relationship with culturally and linguistically diverse parents can sometimes prove challenging. Some parents may view the role of education and their involvement in the educational system differently as compared to the expectations and assumptions held by the school. Language barriers might inhibit some parents and teachers from establishing a strong communicative relationship and lead to misunderstanding between teacher and parent. Lai and Ishiyama (2004) found that Chinese-Canadian parents with limited English skills were very interested in participating in their child's education but felt as though their language abilities inhibited them from connecting with their child's teacher. Teachers, conversely, might wrongly interpret this lack of involvement as apathy or disinterest.

Research shows that the concept of parent involvement is socially and culturally constructed (Guo, 2006). The traditional types of parent involvement such as fundraisers, parent–teacher associations and "back-to-school" nights, all of which emphasize the norm of middle class status, need to be expanded. There is a need to include the unique ways that ESL parents are involved in their children's education. For example, Lopez (2001) studied a Mexican migrant family, the Padillas, in Texas, in which the five children all graduated from high school in the top 10 per cent of their classes. The Padillas took their children to work with them in the fields to help them realize that without an education they may end up working in similar types of jobs. In doing so, the Padillas gave their children a choice to either work hard at school or in the fields. They understood involvement as a means to teach "their children to appreciate the value of their education through the medium of hard work" (p. 420). Research suggests that parental and community inclusion and support is crucial, particularly for those most at risk of being labelled as learning disabled. Empowering both teachers and parents to develop a functional, respectful relationship is essential in meeting the unique needs of ESL students with special education needs.

Cultural reciprocity, as coined by Harry, Kalyanpur & Day (1999), suggests that educational practitioners must establish a "two-way process of information sharing and mutual understanding and cooperation" (p. 7) to facilitate communication between teachers and parents. Teachers and administrators need to find ways to connect with parents by understanding how educational institutions are viewed in their native contexts. Teachers might find ways to effectively communicate with non-English speaking parents through the use of informal meetings, interpreters and translated texts in the hopes of limiting misunderstandings and promoting parent participation (Lai & Ishiyama, 2004). Kalyanpur & Harry (2000) recommend establishing reciprocal teacher–parent relationships by:

- discovering the "unseen" values, norms and assumptions of the school culture that impact student and parent assessment/treatment
- discovering the values, norms and assumptions of the parents through an open dialogue about the role of education in society
- demonstrating respect for these culturally learned beliefs about education and sharing one's own beliefs about education with the parents in hopes of increasing awareness and/or discovering common ground
- working with parents in an attempt to integrate the belief structure of the school with the belief structure of the family.

**References**

Guo, Y. (2006). "Why didn't they show up?": Rethinking ESL parent involvement in K–12 education. *TESL Canada Journal*, *24* (1), 80–95.

Research indicates that the involvement of parents of ESL students in their children's education is decreasing. This article explores the multiple barriers that affect the communicative relationship between ESL parents and teachers. The article asserts that a variety of language and cultural differences can lead to misunderstanding and limited interaction between ESL parents and teachers. Unfortunately, many teachers interpret this lack of parental involvement as disinterest. In fact, most ESL parents in this study indicated that they were deeply concerned with their children's education but encountered barriers inhibiting them from participating fully. Educational institutions need to become

aware of these language and cultural barriers and provide alternatives for facilitating communication and involvement. These may include:

- hiring bilingual staff to provide translation and mediation between parents and teachers
- helping parents understand the school culture and policies through parents' night
- cultural sensitivity training for teachers that allows them to explore their biases and feelings toward ESL parents so they can become equipped with ways to facilitate two-way communication and understand parents' opinions and concerns
- adapting the school environment to embrace multilingualism and multiculturalism
- modifying teacher preparation programs to include training on effectively involving ESL parents in school contexts.

Harry, B., Kalyanpur, M., & Day, M. (1999). *Building cultural reciprocity with families: Case studies in special education.* Baltimore, MD: Paul H. Brookes Publishing.

This book begins by describing the notion of "cultural reciprocity" and its relevance when dealing with culturally diverse families involved in special education. Special education in a North American context has its own set of beliefs, values and assumptions—a special education culture, as it were. Parents of culturally and linguistically diverse learners with special education needs might have different ideas about the role that education plays in their lives as well as what constitutes acceptable interaction with educational institutions. Some parents of divergent cultures may not prioritize building relationships with teachers and community service providers. In the North American special education context this is expected and often taken for granted. These two diverging viewpoints can result in misunderstandings between the teacher and parents.

Cultural reciprocity is the ability of professionals to create a "two-way process of information sharing and mutual understanding and cooperation." The authors identify four steps that enable educational practitioners to facilitate communication between themselves and families of culturally diverse students with special needs.

The book describes eight case studies that demonstrate the efficacy of these four steps, or "posture[s] of cultural reciprocity." Each student chronicled in the book faced his or her own unique set of circumstances and challenges. The case studies demonstrate how instructors and service providers utilized the posture of cultural reciprocity uniquely with each individual.

Harry, B., Rueda, R., & Kalyanpur, M. (1999). Cultural reciprocity in sociocultural perspectives: Adapting the normalization principle for family collaboration. *Exceptional Children*, *66* (1), 123–136.

This article discusses adaptations to special education programs for English language learners that include professionals working collaboratively with families and taking a "sociocultural view of learning" that looks at education as a social rather than individual process. Learning occurs through meaningful interaction that is "embedded in specific social and cultural settings." In essence, valuing the individual learner means valuing equally the context; e.g., family, cultural group and socioeconomic status to which he or she belongs. Teachers and parents must work collaboratively to discover their own cultural biases and areas of intersection/disconnect. Public service agencies can aid in facilitating these connections between teachers and parents. Public service staff working with

culturally and linguistically diverse families must recognize the social and cultural values held by families and how these affect parental expectations for their child's learning and the educational system.

Kalyanpur, M., & Harry, B. (2000). The posture of cultural reciprocity: Beth's story. In M. Kalyanpur & B. Harry, *Culture in special education: Building reciprocal family-professional relationships* (pp. 113–131). Baltimore, MD: Paul H. Brookes Publishing.

This chapter emphasizes the need for cross-cultural awareness among educational practitioners, particularly when dealing with families of diverse students with disabilities. Using the four steps of the posture of cultural reciprocity, the author demonstrates how professionals can effectively inquire into the backgrounds of culturally diverse families whose children are involved in special education. The four steps include: discovering the cultural values that are entrenched into professional interpretations of what the implications are for English language learners who experience "difficulties" in school; increasing awareness about family values, whether these beliefs differ from or are shared by the teacher, and how these lead to misunderstanding; respecting culturally-influenced values and explaining to families about one's own culturally-influenced educational assumptions; and collaborating with families to discover ways to adapt professional assumptions and recommendations to the value system of the family. A posture of cultural reciprocity is effective to empower both teachers and parents, promote ongoing discussion and increase participation in schools of culturally diverse parents of students with learning disabilities. The article also describes several case studies of the posture of cultural reciprocity in action.

Lai, Y., & Ishiyama, F. I. (2004). Involvement of immigrant Chinese Canadian mothers of children with disabilities. *Exceptional Children*, *71* (1), 97–108.

Parents of language minority children with special needs could provide useful insight into the cultural backgrounds of their children; however, studies indicate that parent participation among these individuals is low. Parent participation is a relatively new concept to some immigrant Chinese-Canadian parents. The purpose of this study was to discover the needs of Chinese-Canadian immigrant parents in order to facilitate full participation in their children's education. Ten Chinese-Canadian mothers who had been living in Canada less than five years were interviewed. Each of their children was involved in special education. Interview questions were determined based on a review of the relevant literature and included topics on communication between home and school, parent aspirations for their children, experiences with individualized education plan meetings and views toward Canadian education.

Four general themes were concluded from the interviews.
- Difficulties adapting to a new environment—Most mothers believed that their children should learn English and adapt to the new environment in order to succeed.
- Limited English proficiency—Often led to misunderstandings between teachers and parents.
- Different views toward education—In China, parent participation is not traditionally the norm, while unquestioned respect for teacher authority is. Additionally, some parents felt as though expectations for students were low in Canada as compared to China. Dissatisfaction was hardly expressed to teachers and the mothers preferred to keep issues silent or to minimize them.

- Involvement in children's education—Parents desired to be highly involved in their children's education but limited English proficiency negatively impacted involvement.

Recommendations for teachers based on findings included gaining a better understanding of the difficulties parents of linguistically and culturally diverse children face, holding informal parent–teacher meeting sessions and engaging in active listening to ensure understanding. Interpreters should also be provided for parents with limited English proficiency.

## Affective Factors

Research indicates that some ESL students can be affected by a variety of factors unrelated to learning disability that impact their performance in the classroom. Some students might be impacted by emotional issues such as anxiety, trauma and lack of confidence. Mayes (n.d.) found strong evidence to support that some ESL students, particularly those new to the Canadian educational context, may be experiencing culture shock or trauma. Teachers need to be sensitive to the emotional needs of students and discover how these can impact performance.

### References

Mayes, E. (n.d.). *When ESL is not enough*. In Identification, Assessment and Programming for ESL Learners with Special/Additional Needs: Five Case Studies, BCTF Research, June 2003, pp. 141–161.

This article asserts that the needs of ESL students often extend beyond simple language acquisition; e.g., some students are distressed by certain affective factors such as anxiety, lack of confidence and lack of motivation or trauma. Difficulties in school may arise from such emotional factors and not only because of language acquisition problems. The article provides descriptions of three student profiles to determine how educational practitioners can create inclusive learning environments to better serve their ESL students with additional needs. The article discusses services rendered at a school in Langley, British Columbia. One recommendation is to develop a rapport with the child and his or her parents to understand the student's background. Another is to form relationships with various social and family service organizations; e.g., social workers, speech pathologists and counsellors. These organizations can serve as useful support to teachers and staff. This article provides multiple strategies for properly assessing and meeting the needs of struggling ESL students that extend far beyond the classroom.

## A Sociocultural View of Learning

Since culturally and linguistically diverse students are being socialized to their new cultural and linguistic environment by attending school, Dempsey (1994) recommended that the Government of Canada contribute some monies toward helping schools meet the special needs of diverse students. This may include funding for interpreters, new and effective methods of assessing ESL learners for learning disabilities and increased immigrant-serving agency involvement/collaboration with schools. Diverse students are not only learning the language but also the rules for language use and appropriateness that varies with the cultural and linguistic context they are in.

**Reference**

Dempsey, R. (1994). ESL funding: Who pays for what? *Education Canada*, *34* (1), 48–51.

This article describes the need for increased funding for educational programs serving culturally and linguistically diverse (CLD) students. Although public education is provincially funded, the Government of Canada needs to take an active role in funding educational programs for CLD learners since schools play a vital role in socializing new immigrant children to their new cultural and linguistic context. The ability of teachers to communicate with parents of CLD children requires funding to pay for interpreters, translated materials and other resources. As the author describes, "it is essential that schools receive adequate federal dollars so that they are able to call on people who can communicate with these new arrivals, in the language of those arrivals and with an understanding of the different culture." CLD learners and refugee children may come to Canada with a variety of special needs, such as emotional distress, poor literacy and culture shock, which affect their ability to learn. Such needs require increased funding. Schools are, indeed, becoming immigrant-serving agencies and should qualify for increased government funding to support the increased number of CLD students represented in Canadian schools.

## Dyslexia

It is often difficult to diagnose second language learners for mild to moderate learning difficulties such as dyslexia. ESL students are often over-represented for severe learning disabilities. Learners with mild dyslexia can exhibit language characteristics that resemble those exhibited by normal functioning second language learners. Dyslexia is most effectively diagnosed by careful examination of a child's phonological processing skills. These are best observed in the student's native language or language of proficiency. Likely, difficulties in phonology exhibited in first language are transferred to the second language.

**References**

Cline, T., & Frederickson, N. L. (1999). Identification and assessment of dyslexia in bi/multilingual children. *International Journal of Bilingual Education and Bilingualism*, *2* (2), 81–93.

This article discusses the challenges involved in effectively assessing and diagnosing English language learners with dyslexia. The processes of identifying dyslexia in monolingual speakers often under-identify bilingual students with dyslexia.

Recent evidence, from the United Kingdom educational context, suggests that second language students are often over-represented for severe learning disabilities but under-represented for mild to moderate disabilities, including dyslexia. Modifications are needed to the ways in which dyslexia is identified in diverse learners. The authors argue against the possibility of creating "culturally neutral" assessment tools citing that this simply is an impossible task. Instead, assessments must be comprehensive and not rely on one discrepancy criteria or assessment tool. Teachers and specialists should engage in a thorough analysis. Suggestions for best practices include:

- using assessment tools that have been reviewed for biases
- assessing students in each of their spoken languages upon arrival

- using professionals who have knowledge about dealing with the child's language and culture for assignment and diagnosis.

In addition, research suggests that dyslexia is best diagnosed by attention to a child's phonological processing skills that are independent of intelligence. Assessment approaches to detecting dyslexia contain less cultural bias as compared to using the IQ test, which is the traditional method of diagnosis.

Frederickson, N. L. & Frith, U. (1998). Identifying dyslexia in bilingual children: A phonological approach with Inner London Sylheti speakers. *Dyslexia*, *4* (3), 119–131.

This article summarizes several studies that support the need for a more comprehensive means of diagnosing bilingual children as experiencing either dyslexia or specific learning difficulties (SpLD). Often, students with dyslexia and SpLD can demonstrate similar qualities that can be particularly difficult to diagnose in bilingual or ESL students. Three studies are discussed in which random samples of SpLD children are assessed using standardized reading and phonological tests. These types of tests allow for a better understanding of the specific learning difficulties these children experience. Practitioners are better able to provide effective instruction with these results in mind. English IQ tests, commonly used as an assessment tool for such learning deficiencies in children, cannot offer the same degree of knowledge and understanding.

Helland, T. & Kaasa, R. (2004). Dyslexia in English as a second language. *Dyslexia*, *11* (1), 41–60.

This study compared a group of 20 Norwegian 12-year-olds with dyslexia who were learning English as a second language to an age-learning and gender-matched control group. The study attempted to discover the effects dyslexia has on second language (L2) learning compared to what is known about how dyslexia affects first language (L1) learning. Results indicate that there were significant differences between the two groups in the areas of morphology, syntax, semantics and orthography. Since dyslexia affects these linguistic areas in L1 production, it would undoubtedly affect the production of L2. This study is the first one of its kind to look at the correlation between L2 acquisition and dyslexia and further research is recommended.

Sparks, R. L. & Ganschow, L. (1991). Foreign language learning differences: Affective or native language aptitude differences? *The Modern Language Journal*, *75* (1), 3–16.

This article is a synthesis of research pertaining to effectively diagnosing second language learners who experience dyslexia from a linguist's perspective. The article discusses specific affective variables that affect the English language learner's ability to acquire a second language. These include student motivation and willingness to learn, unfamiliar teaching styles, and teacher ability to teach to the specific learning styles of diverse students and student levels of anxiety.

The article discusses the notion that learning problems experienced in first language (L1) will transfer to second language (L2) acquisition. Studies show that learning difficulties are originated in oral and written language problems. Issues with oral and written language in L1 are a good indication of how well or how poorly a student will acquire L2. The authors propose the Language Coding Deficit Hypothesis, which looks at the use of phonological, syntactic and semantic aspects of language production to diagnose L2 with learning disabilities.

## Visual Impairments/Hard of Hearing

Increased collaboration between ESL specialists and Braille teachers is recommended to meet the unique needs of ESL students with visual impairments. Collaboration between specialists is also recommended for meeting the needs of hard-of-hearing ESL students. Instructional strategies for second language acquisition tend to be heavily visual and auditory (Guinan, 1997). Instructors must modify teaching to ensure specific visual or hearing needs are met, which may include a variety of multi-sensory activities to engage students (Munoz, 2000). Most importantly, instructors should encourage students to continue developing first language literacy or Braille literacy skills so these skills transfer to the second language.

### References

Guinan, H. (1997). ESL for students with visual impairments. *Journal of Visual Impairment & Blindness*, *91* (6), 555–563.

This article makes some recommendations for vision teachers who are teaching ESL students with visual impairments. Cooperation between Braille teachers and ESL teachers is needed. Studies show that visual impairment does not interfere with language acquisition and the development of communicative skills. It can, however, affect language use in social situations. Students with visual impairments may experience limited semantic associations as compared to sighted children. Students with visual impairments experience difficulties with pronouns, and this should be recognized by instructors. Given that language acquisition research shows that skills learned in first language can transfer to second language, the same can be said for Braille. Strong Braille literacy in the student's first language is encouraged for transference to second language. English instruction should be heavily focused on Braille instruction. Easy access to Braille and large print material is encouraged.

Munoz, M. L. (2000). Second language acquisition and children with visual and hearing impairments. http://www.tsbvi.edu/Outreach/seehear/spring00/secondlanguage.htm (Accessed March 17, 2008).

This report describes the additional barriers that children with visual impairments and deaf-blindness experience when attempting to learn a second language since second language instruction is often heavily visual and auditory. Instructors need to consider and maintain modified instructional strategies for teaching a second language to students with visual or hearing deficiencies. These modifications include: implementing devices used for improving hearing or sight such as hearing aids, glasses, computer software; engaging in multisensory activities to encourage experiential learning; encouraging native language use to access second language; relating new learning and concepts to familiar experiences; providing specific instruction for second language use to "discriminate between speech sounds and to identify word boundaries"; and checking student notes to verify understanding.

# PART III:
# ESL Students with Limited First Language (L1) Literacy Skills

## Introduction

There is general agreement that instruction in the L1 is beneficial and that transfer of literacy skills almost always occurs to the L2. However, the following research studies looked at the question of how to deal with students whose L1 skills were *not* in written languages or who have limited or no literacy skills in their L1 and were attempting to acquire literacy skills in English.

To illustrate this, conclusions are extrapolated from Rickford, J. (1998). Rickford is an expert in the field of *ebonics*—the popular name given to Afro-American Vernacular English (AAVE). AAVE is a dialect spoken by a definable group of people who have often been identified as at-risk in the education system. Their literacy skills in standard English often lag behind grade norms. The attempts to change this in the school system have not been very successful. In spite of additional support in literacy, the students' reading skills in the standard dialect lag behind. Rickford discusses an innovative program that introduced literacy skills to these students via AAVE. Materials were created in AAVE and students were taught to read using them. The study reported that those students who were taught to read with AAVE materials were able to transfer those skills and enhance their standard dialect literacy skills. Previous studies had shown that attempts to teach the AAVE speakers to read via standard dialect texts were unsuccessful.

The extrapolation of this study is that students who have full L1 spoken proficiency but no literacy skills in their L1 could still profit from being taught how to read with materials created to represent their L1. The expectation is that these literacy skills transfer to their L2 (English).

The treatment of problems in literacy is a complex issue that involves linguistic, sociolinguistic and economic factors. Gordon Wells (1986) in *The Meaning Matters* notes that literacy is not just related to cognitive properties of an individual but also to the economic environment in which they exist. Therefore, any attempt to bring about a change in an individual's literacy will also have to acknowledge these broader concerns, which is not an easy task.

## References

August, D., Carlo, M., Dressler, C., & Snow, C. (2005). The critical role of vocabulary development for English language learners. *Learning Disabilities Research & Practice*, *20* (1), 50–57.

This article discusses the importance of vocabulary development and outlines several methods that may be effective in improving the vocabulary of young ESL students who are typically disadvantaged when it comes to English vocabulary. The article encourages teachers to make use of the child's first language such as drawing on cognates to ensure that the child is aware of the meaning of basic vocabulary items before moving on, and to constantly review vocabulary items that have been previously covered. The difficulties in encouraging the development of English vocabulary in ESL students is then discussed.

Chiappe, P., Siegel, L. S., Wade-Woolley, L. (2002). Linguistic diversity and the development of reading skills: A longitudinal study. *Scientific Studies of Reading*, *6* (4), 369–400.

The purpose of this study was to examine whether the same component processes are involved in reading acquisition for students with varying levels of proficiency in English in Kindergarten and the first grade. Three basic research questions informed this study.

- Do basic literacy and reading-related skills differ as a function of proficiency levels in English? Specifically, do native speaking students and linguistically diverse students show similar growth in decoding, spelling and oral language skills in English through Kindergarten and the first grade?
- Do the cognitive and linguistic profiles of students who speak English as a second language and native English-speaking students differ in significant ways?
- Do the same cognitive, language and literacy-related skills predict first-grade reading performance for native speaking students and ESL students?

The performance of 858 students was examined on tasks assessing basic literacy skills, phonological processing, verbal memory and syntactic awareness. There were 727 students who were native English speakers (NS students) and 131 students who spoke English as a second language (ESL students). Although ESL students performed more poorly than NS students on most measures of phonological and linguistic processing in Kindergarten and first grade, the acquisition of basic literacy skills for students from both language groups developed in a similar manner. Furthermore, alphabetic knowledge and phonological processing were important contributors to early reading skills for students from both language groups. Therefore, children learning English may acquire literacy skills in English in a similar manner to NS students, although their alphabetic knowledge may precede and facilitate the acquisition of phonological awareness in English.

The results of this study point to similarities between the cognitive development of reading skills in ESL and first language students. This seems to provide evidence for Cummins' linguistic interdependence hypothesis, which suggests that there is a significant relationship between students' skills in acquiring native and foreign languages. The relationship between phonological awareness and reading acquisition would be similar for students learning to read in their native language and children learning to read in a foreign language. The same underlying skills of letter knowledge, spelling and phonological processing were strongly related to word reading in English for all students. Therefore, the same instructional methods can foster the development of decoding and spelling for students from a wide range of language backgrounds.

Crandall, J., Bernache, C., & Prager, S. (1998). New frontiers in educational policy and program development: The challenge of the underschooled immigrant secondary school student. *Educational Policy*, *12* (6), 719–734.

This article discusses ESL students who have limited prior schooling. It suggests that students with limited prior schooling need something other than typical ESL programs. Underschooled immigrant students face the double challenge of acquiring English and literacy at the same time as they are trying to compensate for years of lost education. Students enrolled in appropriate, specialized programs may need only two or three years to catch up to their peers. Furthermore, except for ESL or bilingual teachers, few teachers have had any special preparation for teaching English language learners, and even ESL or bilingual teachers are unlikely to have had any special preparation for teaching

underschooled secondary school students since teaching ESL to non-literate secondary school learners has not been a part of teacher preparation programs. Compounding the difficulties that these students face are rising graduation requirements with an increasing number of credits in fewer subject matter choices, increasingly prevalent use of standardized tests or other high school assessments including graduation and, in some cases, participating in mandated community service. These add substantially to what underschooled secondary school students must accomplish within a very limited time.

Dickinson, D. K., McCabe, A., Clark-Chiarelli, N., & Wolf, A. (2004). Cross-language transfer of phonological awareness in low-income Spanish and English bilingual preschool children. *Applied Psycholinguistics*, *25* (3), 323–347.

The paper describes the development of phonological awareness, which has been shown to play an important role in the development of reading skills, of preschoolers in Spanish-speaking homes. Both English phonological awareness and English letter identification have been shown to be important factors when learning to read. A strong start in these areas is extremely important in ensuring future success. A lack of such abilities has been used to account for the low reading levels and high dropout rates of high school Hispanics. Although these problems manifest themselves in later grades, earlier studies have found that these problems stem from learning that occurs at an earlier age. This study looked at 123 Spanish-speaking preschoolers. Their abilities were assessed using the *Peabody Picture Identification* test and the early phonological awareness profile that were both conducted in Spanish and English. The emergent literacy profile was then conducted in the child's stronger language. It was found that phonological awareness in one language was correlated with phonological awareness in the other language. Based on the results of these tests, the authors conclude that bilingualism is not a disadvantage for children who are acquiring literacy and suggest that the bilingualism of these children be encouraged at school and in the home.

*Early literacy and the ESL learner: Participants' manual for early childhood educators working with children from language backgrounds other than English*. (1998). Adelaide, SA: Department of Education, Training and Employment.

This manual represents a collection of materials used in a course offered by the Australian Department of Education to in-service teachers working with young students for whom English is not their first language. While the materials are designed specifically for the Australian context, they can be adapted for teacher training anywhere in the world or for teaching young students in any context. The materials are aimed at promoting teacher awareness of the social reality many young non-native English-speaking students face and emphasize the maintenance of the students' home languages for learning English and for maintaining personal and cultural identity. The manual includes the following modules:
- supporting ESL students in early childhood settings
- developing additional language in a supportive learning environment
- talking and learning in a second language
- reading and writing in a second language
- using a culturally inclusive approach to early childhood education.

The manual also includes worksheets and exercises to use with students from language backgrounds other than English.

Goldstein, B. A. (2006). Clinical implications of research on language development and disorders in bilingual children. *Topics in Language Disorders*, *26* (4), 305–321.

Goldstein reviews several past studies that examine theories of language development in bilingual children and provide assessment models for determining phonological, lexical and syntactical development. These baselines can be used to determine whether a bilingual student has a language disorder that requires treatment or if an apparent lack of language ability is a result of the bilingual nature of the student's language. Goldstein emphasizes that students may have difficulties with certain tasks in one language while showing proficiency in the same task in their other language. Goldstein then moves on to look at studies that have focused on bilingual students with language disorders and determined that these students are not at an increased risk of specific language impairment, nor are their errors significantly different from those of the monolinguals. It is suggested that the assessment and intervention of bilingual individuals suspected of having specific language impairment be done in both languages.

Graves, A. W., Gersten R., & Haager D. (2004). Literacy instruction in multiple-language first-grade classrooms: Linking student outcomes to observed instructional practice. *Learning Disabilities Research & Practice*, *19* (4), 262–272.

The primary purpose of this study was to investigate the literacy practices in multiple-language first-grade classrooms and to explore the relationship between observed teaching practice and students' growth in reading. The researchers' goals were to:
- examine the relationship between the quality of literacy practices in first-grade classrooms and growth in oral reading fluency for the students taught by using the Good & Kaminski (2002) benchmarks as a means for classifying students into categories related to future "at-risk" status
- explore the percentage of students subsequently labelled with learning disabilities and examine their oral reading fluency growth in first grade
- describe practices in classrooms rated as high quality to suggest methods that might be useful in teaching English language learners to read in a second language.

This study examined literacy instruction in 14 first-grade classrooms of English language learners in three schools in a large urban school district in southern California over a two-year period. Pre- and post-test measures of oral reading fluency for 186 first graders representing 11 native languages were the outcome data. Reading fluency data were examined in reference to ratings of literacy practices using the English Learners Classroom Observation Instrument (ELCOI). The ELCOI is a 30-item Likert scale with the following six empirically derived subscales and refers to the teachers' methods in the classroom:
- explicit teaching: models skills and strategies, provides prompts and adjusts own use of English in the classroom
- instruction geared toward low-performing students
- sheltered English techniques: uses visuals to teach content, provides explicit instructions in English, and uses gestures/expressions for clarification
- interactive teaching: secures and maintains student attention during lesson
- vocabulary development
- phonemic awareness and decoding.

The 14 classrooms were observed for 2.5 hours between five and seven times. The observer rated the items on the ELCOI using a four-point Likert scale, ranging from very effective to not effective. The authors calculate the results and then provide a case study of the teacher who received the most effective rating according to the ELCOI. The case study describes a typical morning in the effective teacher's class and, subsequently, a typical morning in the least effective teacher's class. These descriptions are highly illustrative and helpful in terms of what the authors consider effective teaching to first-grade multilingual first language students.

In general, while their results only indicated a moderately strong correlation ($r = 0.65$) between ELCOI rating and gain in oral reading fluency at the end of first grade, the study provided interesting ways of quantifying the notion of "best practice" as it relates to literacy instruction with first-grade multilingual ESL students.

Hammer, C. S., & Miccio, A. W. (2006). Early language and reading development of bilingual preschoolers from low-income families. *Topics in Language Disorders*, *26* (4), 322–337.

This article addresses several studies regarding the reading abilities of Spanish–English elementary age students. The researchers found that bilingual students with good reading skills in their first language often have good reading skills in their second language, but that this correlation is not present if literacy is not primarily established in the first language. They also found that, when spelling, Spanish-literate children used Spanish phonological analysis; e.g., treating diphthongs as two units rather than one. These sorts of mistakes were demonstrated only in individuals who had developed some amount of Spanish literacy before English literacy. They also found that proficiency in English is not related to the prevalence of English spoken in the home and that students can thrive despite a lack of English in the home. Furthermore, it is more important that students receive instruction in their first language to remain proficient and reap the benefits later in life because of the ability to read, write and speak in both languages.

Holm, A., & Dodd, B. (1996). The effect of first written language on the acquisition of English literacy. *Cognition*, *59* (2), 119–147.

Holm and Dodd examine the relationship between first language (L1) and second language (L2) literacy skills. They assessed the performance of 40 university students from the People's Republic of China, Hong Kong, Vietnam and Australia who were compared on a series of tasks that assess phonological awareness, reading and spelling skills in English. The results indicated that those with no alphabetic L1 literacy had limited phonological awareness compared to those students with alphabetic L1 literacy. Holm and Dodd concluded that ESL students transfer their literacy processing skills from their L1 to English, and that students from non-alphabetic written language backgrounds might have difficulties with new and unfamiliar words when learning English.

Ingersoll, C. (2001). Meeting the language needs of low-literacy adult immigrants in Washington, D.C. and suburban northern Virginia. ERIC No. ED456676, http://www.eric.ed.gov (Accessed March 17, 2008).

This paper investigates how adult native Spanish immigrants with low literacy levels are being taught new English language skills. Several different programs were examined—those that offered only ESL classes and those that also offered native literacy instruction. The programs were assessed by conducting surveys with respect to the administrative characteristics of the program such as the number of students, qualifications of the teachers, sources of instructional materials and financial assistance; the pedagogical reasons for starting the programs; and the reasons students wanted to participate. From the results of their surveys, they concluded that it is harder for students with native low-literacy (NLL) skills to succeed in ESL classes. NLL students had higher dropout rates due to poor study skills and poor attitudes toward learning. As previous research has supported, they suggest that a student with very low literacy skills might be better served by an available NLL class instead of an ESL class. They suggested that literacy in one's native language makes it easier to learn ESL but learning English is possible even if the student is not literate in his or her native language.

Johansson, L., Angst K., Beer B., Martin S., Rebeck W., & Sibilleau, N. *Canadian language benchmarks 2000: ESL for literacy learners*. Ottawa, ON: Centre for Canadian Language Benchmarks.

This is a project report by the Board of Education of Winnipeg regarding ESL students in Canada who are not literate in their native language for various reasons. This report discusses several types of ESL students, including pre-, non- and semi-literate, and the students from non-Roman alphabet languages. This report discusses descriptions of what ESL literacy students are able to do at various stages of their development. The report discusses and describes learners in terms of a foundation phase and three other phases.

The foundation phase describes a small minority of beginning ESL literacy second language learners who need to develop and practise the specific visual and motor/mechanical skills that are needed in the pre-reading and pre-writing literacy process. Phase I learners become aware that print conveys meaning and that there is a connection between oral language and print. They begin to recognize the value that Canadian society places on reading, writing and numeracy. Phase II learners develop expectations around print; e.g., that print is organized in a way that aids comprehension. Phase III ESL literacy learners expand their knowledge of the written language and they can read and respond to a wider variety of authentic and teacher-adapted texts.

Klassen, C., & Burnaby, B. (1993). Those who know: Views on literacy among adult immigrants in Canada. *TESOL Quarterly*, *27* (3), 377–397.

This study looks at the statistics from a variety of sources regarding ESL students who have had little previous literacy experience. According to a 1981 census, compared with their Canadian-born counterparts, immigrant adults had only elementary education, suggesting that the proportion among immigrants in Canada with minimal schooling is increasing. The article also reports on the Survey of Literacy Skills Used in Daily Activities (LSUDA) from Statistics Canada 1991, concerning adult literacy proficiency. The LSUDA reported that adult immigrant participants were almost five times more likely than their Canadian counterparts to be represented at low-literacy levels and significantly

less likely to be represented at the highest literacy level. It further reported that about 32% of foreign-born women and 24% of foreign-born men had extreme difficulty dealing with printed materials, compared with approximately one-tenth of Canadian-born adults. The article goes on to describe a Toronto-based case study of low-level literacy and then explores issues concerning Latin American adults and reading and writing.

Lesaux, N. K., & Siegel, L. S. (2003). The development of reading in children who speak English as a second language. *Developmental Psychology*, *39* (6), 1015–1019.

Certain pre-reading skills are necessary for early reading acquisition in English. For example, phonological processing, syntactic awareness and working memory are the cognitive processes assumed to be significant in the development of reading skills in English. This study looked at whether these skills are also important in reading for children of ESL backgrounds. The researchers looked at the development of reading in a program designed for children who enter Kindergarten with little or no proficiency in English, the language of instruction. Previous studies have shown that teaching children to read in a language in which they are not yet proficient is an additional risk factor for reading problems.

The authors of this study administered measures of reading, spelling, language and memory skills to a large cohort of children from linguistically diverse backgrounds to gain insight into whether similar patterns exist in ESL and first language (L1) speaking children who are experiencing reading failure and the overall development of early reading in children who are ESL speakers. The study was longitudinal in nature, which afforded the opportunity to examine those skills in Kindergarten that are later predictors of reading ability for ESL students.

Participants were 978 (790 L1 speakers and 188 ESL speakers) Grade 2 children involved in a longitudinal study that began in Kindergarten. In Kindergarten and Grade 2, participants completed standardized and experimental measures including reading, spelling, phonological processing and memory. All children received phonological awareness instruction in Kindergarten and phonics instruction in Grade 1.

By the end of Grade 2, the ESL speakers' reading skills were comparable to those of L1 speakers and ESL speakers even outperformed L1 speakers on several measures. The findings demonstrate that a model of early identification and intervention for children at risk is beneficial for ESL speakers and also suggest that the effects of bilingualism on the acquisition of early reading skills may be positive.

Leu, D. J. Jr., Castek, J., Coiro, M., Gort, M., Henry, L. A., & Lima, C. O. (2005). Developing new literacies among multilingual learners in the elementary grades. Presented at a colloquium as part of the *Technology in Support of Young Second Language Learners Project at the University of California*. http://www.newliteracies.uconn.edu/pubs.html (Accessed March 17, 2008).

This paper explores the potential of the intersection between language, literacy and the Internet for multilingual learners. The authors suggest that the Internet requires new reading, writing and communication skills in addition to foundational literacy skills required within traditional book and print technologies. Specifically, the Internet is the most important context for literacy in an information age; it requires new literacy skills, strategies and dispositions in reading, writing and

communication to fully exploit its information and learning potential; and it provides special opportunities for multilingual learners and schools in an increasingly globalized world. Specifically, the authors address this focal question, "How might we best support the development of new literacies among elementary age children who are simultaneously acquiring language and literacy in both English and their native language?"

The authors define "new literacies" as:
- central to full civic, economic and personal participation in a globalized community, and critical to educational research and the education of all of our students
- deictic because they regularly change as their defining technologies change
- multifaceted because they benefit from analysis that brings multiple points of view to the discussion.

From this, the researchers argue that new technologies create new literacies that have led to changes in the nature of reading, writing and communicating due to the Internet and other information technologies.

Examples of projects to incorporate literacy and learning into technology-centered classes to support multilingual learners are:
- out-of-school technology projects
- online international projects used in schools
- online international projects used both in and out of school.

Within each category the authors provide Web site names for projects and groups that have ongoing activities for students to learn English through the Internet and interact with other students their own age.

The article concludes by encouraging educators to view multilingual students not as a problem to be solved but rather as an opportunity for learning, and the Internet can be a very helpful tool in this pursuit.

Lipka, O., Siegel, L. S., & Vukovic, R. (2005). The literacy skills of English language learners in Canada. *Learning Disabilities Research & Practice*, *20* (1), 39–49.

The Canadian research is aimed at identifying reading disabilities in English language learners. This article focuses on three areas which are identified as important for the development of literacy skills in both ESL students and English-speaking students. The areas are phonological processing, syntactic awareness and working memory. It is assumed that phonological processing is the most important aspect with respect to learning to read. Whereas some studies have found that normal young ESL students are equivalent or superior to their English-speaking peers in terms of phonological awareness, others show ESL students to be inferior. In terms of syntactic awareness, it is shown that while young ESL students perform below average on syntactic awareness tasks, this difference is not as evident among older ESL students. In working memory tasks ESL students perform below their English-speaking peers at the Kindergarten level but this difference is gone a year later and it does not seem to affect literacy skills. Due to the similarity between the abilities of normal ESL students and normal English-speaking children, and the fact that reading disabilities occur in no greater numbers among

ESL students, the use of similar measures in identifying reading disabled ESL students and reading disabled English-speaking children is appropriate.

Páez, M., & Rinaldi, C. (2006). Predicting English word reading skills for Spanish-speaking students in first grade. *Topics in Language Disorders*, *26* (4), 338–350.

A longitudinal study followed 244 low-income English language learners from age four through Kindergarten and Grade 1. The majority were born in the United States but lived in Spanish-speaking households. All children attended schools where English was the language of instruction. The children were tested using the *Woodcock Language Proficiency Battery—Revised* test and tasks designed by the researchers to test the three aspects responsible for good language learning of phonological skills, early reading skills such as word recognition, and oral language abilities. In general, their English word reading skills were equivalent to monolinguals and their Spanish word reading skills were below average. However, word reading abilities in Spanish along with English phonological awareness at the Kindergarten level were found to be predictors of English reading skills later on. These findings indicate that similar testing procedures can be used to determine whether the reading difficulties that are experienced by ESL students are a result of their lack of English skills or due to learning disabilities. A screening program such as that used in the study is suggested as a method for identifying students who may encounter difficulties later on. It is also suggested that reading instruction for these children should be vocabulary based and instruction in the child's first language should also be continued.

Pollard-Durodola, S. D., Mathes, P. G., Vaughn, S., Cardenas-Hagan, E., & Linan-Thompson, S. (2006). The role of oracy in developing comprehension in Spanish-speaking English language learners. *Topics in Language Disorders*, *26* (4), 365–384.

A pedagogical framework is suggested for Spanish-speaking English language learners based on an overview of the practice-related findings from four different studies conducted with students who are at risk for developing reading difficulties. The study first looks at English-speaking students and notes that the successful intervention involves the three aspects of reading content, explicit instruction and the early establishment of reading skills. Intensive instruction in small groups significantly improved most English-speaking students' reading abilities. There is less information on the development of Spanish-speaking children's reading abilities. However, the orthographic similarities between the two languages led the researchers to believe that the process of learning to read is similar in Spanish and English. However, they do recognize that there are differences in the way that the two languages are written. Spanish has a relatively consistent sound–to–symbol correspondence while English does not. In addition, the simple syllable structure of Spanish means that Spanish readers are able to decipher longer words at an earlier stage than English readers. It is, therefore, suggested that explicit instruction to ESL students in the areas of oral language, phonemic awareness, alphabetic knowledge, fluency, vocabulary and comprehension strategies be conducted. Students who were involved in such programs improved in the areas of phonological awareness, letter–sound identification, word attack and comprehension skills. They suggest the use of explicit reading programs focusing on these four areas within a shared book reading routine to improve the English reading skills of Spanish-speaking ESL students.

Slavin, R., & Cheung, A., (2003). Effective reading programs for English language learners: A best-evidence synthesis. Report 66, Center for Research on the Education of Students Placed at Risk (CRESPAR). Baltimore, MD: CRESPAR/Johns Hopkins University.

This report reviews research on effective reading instruction for English language learners in an attempt to apply consistent, well-justified standards of evidence to learn about effective reading instruction for these children. The authors focus equally on language of instruction and on replicable programs intended to improve the reading achievement of ESL students. This review applies a technique called "best-evidence synthesis" (Slavin, 1986), which attempts to use consistent, clear standards to identify unbiased, meaningful information from experimental studies and then discusses each qualifying study, computing effect sizes but also describing the context, design and findings of each study.

The purpose of this review is to examine the evidence on reading programs for ESL students to discover how much of a scientific basis there is for competing claims about effects of various programs. The purpose of the report is to inform practitioners and policymakers about the tools they have at hand to help all ESL students learn to read, and to inform researchers about the current state of the evidence on this topic as well as gaps in the knowledge base in need of further scientific investigation.

The report covers a series of topics by describing the issue and some of the solutions and then evaluating the relevant research. The following topics are covered:
- language of instruction: immersion versus bilingual programs
- effective reading programs for ESL students.

While this report deals primarily with Hispanic students learning English, there are various points that are relevant to the Canadian context such as ways in which to evaluate program effectiveness.

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