The Grade 3 Provincial Achievement Tests: In need of revamping?

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This article advances an argument for retaining but revamping the grade 3 Provincial Achievement Tests (PATs). Alberta's demographic landscape is rapidly changing to include significant numbers of English language learners who are still in the early stages of developing English language proficiency at grade 3. Online tools are used to generate vocabulary profiles from exemplars of three standards of achievement: excellent, proficient and satisfactory. These are compared along various indices of vocabulary diversity. The findings provide striking evidence for rethinking the place of vocabulary in the overall assessment framework of the PATs, and in turn, for emphasizing the need for direct and explicit vocabulary instruction from the earliest of formal schooling experiences for immigrant children and the children of immigrants.

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The Provincial Achievement Tests (PATs) administered in Grades 3, 6, and 9 have been in place since 1982. The tests were instigated in response to a growing demand for accountability in public education (Burger & Krueger, 2003; McEwen, 1995). A report by the Alberta School Boards Association (ASBA, 2004) focuses on the central question; How can school boards use accountability reporting and data based decision making to improve results for students? At the heart of this question lies the issue of equity in educational outcomes, particularly as Alberta faces accelerating diversity in its K – 12 population.

Three decades later, however, the debate surrounding the PATs remains polarized and divisive; teachers, the Alberta Teachers' Association (2009), and the superintendent of Alberta's major board, the Calgary Board of Education (McClure, 2011), squarely pitted against ASBA and Alberta Education, the province's Ministry of Education. The notorious Fraser Institute (Fraser Institute, 2012) rankings and its interactive website further exacerbate the discussion (Gignac,

2012). Academics for their part are equally divided on the issue (Field, 2011; Roessingh, 2007; Zwaagstra, 2009). Burger and Krueger (2003) provide a good summary of the major arguments of each extreme, seeking a reasonable compromise for a broad based and balanced assessment approach which would include the PATs. During her leadership campaign Alison Redford, now the Premier of Alberta, promised to eliminate the grade 3 and 6 PATs (McClure, 2011).

This article advances an argument for retaining the PATs, but revamping them to permit more nuanced insights into the early language and literacy development of English language learners (ELLs) who are still in the early stages of developing English language proficiency at the end of grade 3. The demographics of the school going population in Alberta has shifted since 1980 reflecting exponential growth in the proportion of ELLs now present in the mainstream elementary class setting. For example, representing just 3% of the student population in large school urban jurisdictions such as the Calgary Board of Education (CBE: 2012) and the Calgary Separate School District (CSSD) in 1992, they now represent 25% of the student population (CSSD, 2010). Increasingly, these youngsters are the Canadian born children of immigrants. Their demographic profile and status as children of professional, academically credentialed, business class or skilled workers would suggest that these are academically competent youngsters who expect to succeed in school and participate in post-secondary education (Roessingh & Douglas, 2011). Research evidence, however, indicates they struggle throughout the duration of their schooling years, including post-secondary settings, largely due to their linguistic vulnerability; most notably the gaps in their vocabulary knowledge (Cameron, 2002, Roessingh, 2008; Roessingh & Douglas, 2012). The current structure and assessment framework of Part A (writing) of the (ELA) PAT may mask the achievement of many youngsters, especially ELLs. The language proficiency needed to complete the writing task is not sufficiently reflected in the overall weighting in the assessment rubric, allowing the learning needs of these youngsters to go undetected and unaddressed at a point in the learning trajectory where there are accelerating demands for language proficiency; significantly vocabulary knowledge.

The broad questions that frame this inquiry may be stated as follows:

- What language thresholds and other features of linguistic diversity, specifically vocabulary, can be identified from the three proficiency standards illustrated in children's writing at grade 3 (excellent, proficient, satisfactory)?

- What instructional implications emerge from profiles of vocabulary use among children in grade 3 especially as these pertain to the language learning needs of ELLs?

This article is organized to provide background information on the early language and literacy development of youngsters, noting the strengths and weaknesses documented in the research on ELLs. Next, a brief overview of outcomes data from various large scale assessment programs in which Alberta students participate is presented: the Program for International Student Achievement (PISA), an international testing program that includes the Organization for Economic Co-operation and Development (OECD) member countries, the province's grade 12 diploma examinations, and the PATs. The current framework of the grade 3 (ELA) PAT follows. Vocabulary profiling as a strategy for gleaning insights into children's productive vocabulary use is briefly explained, and is followed by an examination of exemplars of the grade 3 (ELA) PAT on three different proficiency standards (Excellent, Proficient, Satisfactory) through the lens of vocabulary use. Recommendations are made for reconsideration of the framework of the grade 3 (ELA) PAT (Part A) to include a greater focus on vocabulary, as well as

careful thought to the nature of the task (i.e., the writing prompt) presented to youngsters in grade 3. Implications for pedagogy and assessment are offered.

The essence of this work relates to a desire to use empirical tools and quantitative data to reveal areas of educational inequity and to suggest pedagogical and assessment approaches that can address the growing gap between ELLs and their native speaking (NS) counterparts, with a particular view to early detection and intervention in language learning.

Early language and literacy development

Two landmark studies, Hart and Risley (2003) and Murphy et al (1957), nearly five decades apart, offer consistent, stable insights into the vast quantity and quality of language input youngsters need in order to acquire the foundational vocabulary, the 'building blocks', by age 3 and 5 for transitioning into academic literacy by age 8 (Biemiller, 2003; Chall & Jacobs, 2003). In short, some 45 million words of 'motherese' input generates an oral vocabulary size of about 1200 words by age 3 (Hart & Risley, 2003), growing exponentially by age 5 to around 5,000 words (Murphy et al, 1957). An online vocabulary profiling tool (www.lextutor.ca/vp/kids) arranges these 5000 words or 2500 word families (run, runs, running counts as one word family) into 10 frequency bands of 250 words each: high frequency to low. This tool becomes central to the work at hand.

Importantly, early language development involves not only quantity, but 'richness' or 'lexical stretch.' This means that youngsters shift from using mainly the first 250 high frequency words (Band 1) at age 3, to using increasingly sophisticated, mid and low frequency and academic words (i.e., those with Graeco-Latin roots) as they make the transition at around age 8 to the beginnings of academic literacy. Thus, for example, the word 'mad' (found in the third 250 word band, or first 750 words) used at age 3, is replaced by 'angry' (a Band 8 word) by age 5 by typically developing youngsters (Roessingh, 2010).

ELLs acquire the first 1,000 words associated with basic interpersonal communication skills (Cummins, 1982) with apparent ease in their kindergarten year (i.e. to Band 4). Their pronunciation is native-like (Krashen, Long, & Scarcella, 1979). Developing an adequate vocabulary for the accelerating demands of curriculum studies in upper elementary and beyond, however, remains their single biggest challenge (August, Carlo, Dressler & Snow, 2005; Cameron, 2002; Cummins, 1989; Senechal, Ouellette, & Rodney, 2006).

By age 8, youngsters have generally acquired the literacy concepts and skills associated with 'decoding,' e.g., sound to symbol association, basic sight word vocabulary. All children reach this milestone with a very limited vocabulary, represented, for example by the 220 words on the Dolch list (Dolch, 1948) together with another 100 or so nouns that together account for up to 75% of word coverage in early reading materials for children. Many children have reached the conventional stage of spelling (Gentry, 1982). ELLs demonstrate distinct strengths in these areas, having closed the early literacy gap associated with decoding skills, or learning to read, by the end of grade 1 (Lesaux & Siegel, 2003; Roessingh & Elgie, 2009). ELLs may also develop very good spelling skills by grade 4 using an array of strategies including a phonetic, 'sound it out' approach (Nassaji, 2007), attributed to their heightened sense of phonemic awareness from having been exposed to bilingual experiences early in life.

By age 8, most children have developed executive control over the kinesthetic demands of writing; they can 'push the pencil' with a degree of fluency making cognitive space available for the other demands of writing, hence the introduction of standardized paper and pencil measures by many educational jurisdictions at this point, including Alberta Education. In Piagetian terms,

the child is reaching concrete operations, allowing for manipulation and transformation of thought (Blake & Pope, 2008). The concomitant linguistic resources allow the child to take a picture or visual representation and structure narrative or expository prose to describe, explain or convince. Metacognitive skills are developing, thus allowing the child to 'think about thinking' (Fisher, 1998): revising ideas, reflecting on his writing efforts, and choosing words for precision and nuanced meaning. There is a distinct shift to the use of words from the lower frequency bands and from the Academic Word List (Coxhead, 2000) such as 'request' (rather than 'ask') and 'exclusive' visible in the vocabulary profile of grade 3 writing deemed 'excellent' (Roessingh, Elgie & Kover, 2012). This transition is often described as the shift from learning to read to reading to learn, and from learning to write to writing to learn and writing for the various demands of academic engagement beginning in upper elementary school.

To summarize, ELLs have distinct strengths in early literacy development that may easily mask their language learning lag, most crucially vocabulary knowledge. They 'sound good,' they have strong decoding skills, they often exhibit excellent fine motor control and their written output often appears automatic and fluent, they are good spellers, and they have a basic vocabulary that will fulfill the demands of many early literacy tasks, especially narrative genre. What they lack is a vocabulary reservoir or 'cushion' of thousands of mid-range and academic words that their academic NS counterparts have at the ready and which upper elementary curriculum will immediately demand. This lack of vocabulary underlies what is described in the research literature as 'the grade 4 slump' (Chall & Jacobs, 2003), a phenomenon noted among NS children raised in low socio-economic status (SES) households, and increasingly among ELLs regardless of SES. Language learning is a gradual, protracted process (Hakuta, Butler & Witt, 2000). Even at grade 6 age, research evidence suggests that ELLs may still be as much as two years behind in language development (Klesmer, 1994; Appel & Vermeer, 1998). By grade 12, the gap may have widened to three years and more (Crossman & Pinchbeck, 2012; Roessingh, 2008), leaving these students at academic risk in advanced education settings where the reading demands of textbook information are typically well above grade 12 level.

Outcomes data at grades 3, 6, 9 and 12 including PISA test results for Alberta underscore the need to focus research attention on the onset of the educational trajectory, permitting early identification and timely, targeted interventions. These outcomes are briefly described next.

Stacking up: Some achievement outcomes for Alberta's students

Alberta's K – 12 students participate in two provincially mandated testing programs: the diploma examinations in various academic subjects in grade 12 which comprise 50% of students' final mark (the other 50% is awarded by the subject teacher), and the PATs administered in grades 3, 6 and 9. Alberta students also write the PISA tests, introduced in 2000 and now in their fifth iteration. Every third year, grade 9 students from OECD and other participating countries are tested in mathematics, science and reading. Examining trends in the outcomes data provides evidence warranting educational focus at a much earlier stage in the educational trajectory, specifically on language and its role in learning and especially among ELLs.

The PISA outcomes. Statistics Canada (2009) analyses and makes available the outcomes of Canadian students participating in the PISA test program. The report, *Measuring up*, highlights the importance of looking beyond average scores and international rankings to glean insights into areas of growing inequity that are visible in other indices of student achievement. While reading, mathematics and science are subjects for testing, it is the reading measure that is emphasized as increasingly important in reflecting literacy needs in the global economy. Strong

reading skills at age 15 are consistently linked with high school graduation and participation in post-secondary education.

While Canada performs well in the overall average scores and the international rankings on the reading scores, an examination of the distribution of the scores reveals important trends that reflect growing inequity in outcomes in Canada and in Alberta. Alberta showed the greatest gap among Canadian provinces between students achieving in the upper quartile and those achieving in the lowest quartile. Secondly, the numbers of high achieving Canadian students has been in steady decline over the first four testing cycles (2000 – 2009), from 45% to 40%. Alberta is among the provinces mirroring this pattern.

Although Canada has maintained its average score over the testing cycles reported, four countries including Shanghai-China, Korea, Hong-Kong China and Finland have overtaken Canada in the reading rankings. The Chapter 1 summary of the *Measuring up* report, The performance of Canadian students in reading in an international context, concludes that, "in order to maintain its' competitive edge in the future, Canada will need to improve at the rate of the top performing countries, rather than simply maintain its competencies in reading."

The grade 12 diploma outcomes (English language arts). While the PISA tests measure reading competence, writing is perhaps an even stronger indicator of students' literacy since it offers insights into students' productive uses of language. Alberta's English language arts (ELA) diploma examination and the PATs both have written requirements. Alberta has two tracks through high school ELA: English 30-1 is the grade 12 academic track course that is required for university entrance, and these results are provided below.

On the surface, the English 30-1 diploma outcomes over the last five years look stable and strong; overall, 96.5% of students in Alberta meet the acceptable standard in English 30-1 when both the school and examination marks are included, with an average score of around 62%. Participation rates have remained stable at 60%. Some 28 – 29,000 students write the English 30-1 diploma examination each year (Alberta Education, 2011a). A more detailed look at the outcomes, however, illuminates similar patterns to those visible in the PISA results. The longitudinal data for the English 30-1 diploma examination outcomes reflect a steady downward trend in the number of students who reach the standard of excellence, a score of over 80%; from 19% in 2006 – 2007 to just 10.1% in 2010 – 2011. Strikingly, the school awarded percentage of excellence outcomes decreased only marginally over the same time period from 32.2% to 30.5%. A gap of over 20% between the school outcomes and the diploma outcomes in the standard of excellence is noteworthy (i.e., 30.5% – 10.1%). At the acceptable level, the school mark remained stable at 96 – 97%, however, the diploma scores declined slightly to 84.4, leaving a gap of over 12% in the numbers achieving the acceptable standard. While the combined score indicates only 3.5% of Alberta students do not meet the acceptable standard, 15.6% fail to meet this standard on the diploma examination. Overwhelmingly, those who fail the diploma or who achieve marginal pass marks are ELLs who nevertheless are admitted to university level studies (Roessingh & Douglas, 2011) where the educational trajectory is fraught, in large measure due to inadequate linguistic resources for the rapidly accelerating demands of advanced academic studies (Roessingh & Douglas, 2012).

Douglas (2010) examined the concept of lexical richness linked to English 30-1 outcomes and a sample of academic writing for NS and ELLs on entry to university. Vocabulary knowledge as reflected in the lexical profiles generated from the writing samples was a significant factor in the patterns of academic achievement among first year ELLs and a NS comparison group. Mounting research evidence points to the importance of vocabulary knowledge as the

underlying variable that accounts for academic outcomes in the longitudinal data (Beck & McKeown, 2007; Cameron, 2002; Senechal, Ouellette, & Rodney, 2006). The PATs are the first opportunity to focus on this variable, beginning as early as grade 3. The next section describes and discusses the PATs.

The PATs. The PATs are administered in grades 3, 6 and 9 in the areas of English language arts (reading and writing), mathematics, science and social studies, and are intended to reflect the degree to which children in Alberta have mastered curricular content and objectives in the core academic subjects (Alberta Education, 2000). For the purposes of this article, the ELA tests are considered with particular interest in the writing component (Part A).

Alberta Education (2011b) has developed a five-trait rubric that provides a descriptive framework along 6 quality standards (Appendix A) for reporting the outcomes of the writing component. Over time and with educational advancement, students are expected to demonstrate increased complexity and control over their writing proficiency as they progress from grades 3, to grade 6 and finally, grade 9. Language mediates this growth in cognitive abilities. The (ELA) PAT is administered during 70 minutes of class time in the spring each year. In grade 3, children are provided with a picture prompt and permitted a brief opportunity of 10 minutes to discuss and generate ideas about the picture with a small group of two to four classmates, during which time they may do some pre-writing planning. Teachers are not directly involved in this process. Children are then set to writing on their own for the remaining time. They may have an additional 30 minutes to complete if necessary (Alberta Education, 2012).

Part A is scored for 35 points; content and organization each contribute 10 points, while sentence structure, vocabulary and conventions each contribute 5 points. The writing component is weighted for 50% of the total (ELA) PAT score. The reading component, scored out of 40 points makes up the other 50%. A simple calculation reveals that the productive vocabulary knowledge of a youngster in grade 3 figures only minimally in the overall evaluation of the (ELA) PAT, i.e., 5 points of 35 points comprising 50% or about 7% of the total score. More, the score given for vocabulary is highly subjective, permitting the markers who are experienced Alberta grade 3 teachers recruited to undertake this task, considerable discretion in overriding vocabulary choices in favor of focusing on making meaning. This point becomes clear in the data presented below.

In 2011, 39,126 children wrote the grade 3 PATs. Based on Alberta Education enrolment data (Salmon & Ettrich, 2012) as well as on figures from major school boards presented previously, as many as 8,000 of those writing the grade 3 PATs may be of an ELL background. ELLs are not monolithic in terms of learner profile nor English language learning support needs, however, given the research evidence of the protracted time required for the development of academic literacy (Hakuta, Butler & Witt, 2000; Roessingh, 2008), it may be assumed that at the earliest stage of the educational trajectory the vast majority of these youngsters would still be in the beginning stages of English language and literacy development. Increasingly ELLs are the Canadian born children of immigrants who arrive at kindergarten with little developed English language proficiency, and who would still require language learning support at the end of grade 3; the point at which they write the (ELA) PATs.

Some 92.1% of the children who wrote the grade 3 (ELA) PATs (N= 39,126) achieved the acceptable standard on the writing component, i.e., scored at least 'satisfactory' on the achievement scale described in the rubric (Appendix A). Of particular note is the very high number of children who scored at the satisfactory level or better on the vocabulary subscale: 95.5%, with 52% falling in the satisfactory range (Alberta Education, 2011b). Equally notable is

the relatively low numbers of children who achieved the standard of excellence ,approximately 14%. Interestingly, nearly 40% of grade 3 children scored in the standard of excellence in the reading component (Part B) of the PAT.

While language is seen as central to a child's ability to engage with and to realize the five broad ELA curricular outcomes, it would seem that it is these *outcomes* that are the focus of the assessment approach of the PATs. Language itself is generally *assumed* and is given a secondary place in the overall examination blueprint despite the research evidence noted above of the major contribution that vocabulary knowledge plays in developing academic literacy in upper elementary as children shift from learning to read, to reading to learn (from decoding, to independently making meaning and comprehending reading materials), and from learning to write to writing to learn and for the increasingly academic demands of school (Brynildssen, 2000).

These outcomes warrant further investigation in light of the research evidence indicating that at this stage, and continuing onward to high school graduation, so many students demonstrate lags in their vocabulary and yet achieve the satisfactory threshold. The enormous discrepancy between receptive language, i.e., reading, and productive language already visible in written outputs needs further examination. These outcomes provide the catalyst for refocusing on the grade 3 (ELA) PAT results through the lens of vocabulary use; early identification and intervention being the motivation for better understanding of the achievement outcomes of children.

Vocabulary profiling

In brief, vocabulary profiling is a strategy whereby a sample of writing is analyzed for various indices of lexical diversity to a representative leveled corpus of children's vocabulary use (Stemach & Williams, 2005). The measures include: the total number of words in the text (tokens), the number of different words used (types), and a consideration of 'lexical stretch' or distribution of words used from high frequency to low, as well as the number of families of 'off-list' words (words that exceed Stemach & Williams' 2500 word families, but that appear on the British National Corpus, the backdrop to the children's corpus). The lexical profiling tool is freely available at www.lextutor.ca/vp/kids

Children's vocabulary use is an artifact of the writing prompt. In the case of the grade 3 (ELA) PAT, children are required to provide a narrative response to a visual prompt. In 2011 (Alberta Education, 2011c: 11), the prompt involved a color picture of a young boy dressed in a bird costume, outside on a lovely spring day. The costume is complete with red boots, red scarf and gloves, and a blue hat with a beak for a brim. He is crouched down, holding and looking at a small bird's egg. On the ground in front of him is the bird's nest, containing one unhatched egg and one tiny, newly-hatched chick that is looking at the boy.

Key to the success of lexical profiling as a strategy for gleaning insights into the vocabulary use in a given piece of writing, is the potential for the prompt to elicit the greatest 'lexical stretch' (Roessingh, 2010; 2012). Prompts are not easy to select or create: they must be engaging, accessible, culturally fair, challenging but not overwhelming. Whether by design or chance, the 2011 prompt fulfilled these criteria, resulting in the availability of writing samples highly useful for illustrative purposes in this article.

In the following section, illustrative exemplars are provided to demonstrate the standards of excellence, proficient and the satisfactory (Alberta Education, 2011c) together with the lexical profiles.

Illustrative examples and vocabulary profiles from the grade 3 PATs, 2011.

To reiterate, 92.1% of the children who wrote the grade 3 (ELA) PAT in 2011 achieved the acceptable standard in Part A. Of these, 14.2% scored at the standard of excellence, a decrease from 15.6% in 2010. In the figures that follow, exemplars at the standard of excellence, proficient and satisfactory are provided, each followed by the lexical profile and a commentary of how the profile relates to the overall piece of writing.

Standard of excellence. Appendix B illustrates the standard of excellence. From a lexical perspective, this profile is considered very strong. The number of words (tokens = 295) allowed the writer to develop the ideas and to elaborate. The number of different words (types = 159) show good variability; they are not repeated too often (the type-token ration of .54 indicates that each word was on average reused only twice). The coverage at band 1 (i.e., 61.02%) and band 4 (83.06%) are highly consistent with findings from a related study (Roessingh, Elgie & Kover, 2012). This young writer still had 'room' beyond Band 10, having realized only 92.22% coverage at that point, showing 6 word families from the off-list known words including 'curious,' 'positively,' 'connected,' 'fear,' 'experience,' and 'replied.' The off-list unknown words, i.e., words not recognized on the British National Corpus nor the Stemach & Williams first 2500 words, include interesting descriptive vocabulary such as 'dazzled,' 'chirping,' 'scurried,' 'moping,' 'fascinated,' and 'exclaimed' that enhance precision in meaning and provide nuanced rendering of the story.

The writer has reached the conventional spelling stage, with few errors present in the sample (Gentry, 1982). The handwritten piece reflects confidence and control over the physical demands of writing; it appears fluent. It is an engaging piece, with wonderful use of cohesive devices, and great organization and good flow.

Proficient standard. Appendix C illustrates the proficient standard. Looking through the lens of vocabulary use, note the total number of words (273), the number of different words (137) and the type-token ratio (.5) are not far off the excellent standard, above. Again, it is the distribution of words that is revealing. Band 1 (65.93), Band 4 (90.47) reflect far heavier reliance on high frequency vocabulary than the excellent sample (Figure 2). This writer has used just 2 off-list known words: 'rapidly' and 'disappointed'. The combined off-list known and off-list unknown comprise only 4.39% of the coverage, another marked difference from the excellent exemplar.

While the story is engaging, the writer does not demonstrate the level of control over mechanics, i.e., punctuation and grammar, and syntax. This interferes with ease of reading. There is a fairly predictable unfolding of events.

Satisfactory standard. Lastly, Appendix D illustrates the satisfactory standard and was written by a youngster coded as an ELL.

Focusing on the key lexical indicators we observe a length of 193 words, and 82 different words. The coverage at Band 1 (84.97%) and at Band 4 (98.45%) reflects a paucity of vocabulary knowledge to draw from. Already at Band 3 the student has essentially run out of words, having surpassed the 95% threshold. There is a large, visible 'hole' in the profile beyond band 6: there are no off-list known or off-list unknown words used. This hole represents thousands of words of vocabulary knowledge that are missing from this youngster's repertoire when compared to the profile illustrated in Figure 2.

While there is a semblance of organization in the satisfactory sample of writing, it is linear and straightforward, though it shows some imagination. It tells a story of two boys, Max and

Table 1

Summary of measures of lexical diversity

Lexical feature:	Excellent	Proficient	Satisfactory
Words in text	295	273	193
Different words	159	137	82
% Band 1 words	61.02%	65.93%	84.97%
% Band 4 words	83.06%	90.47%	98.45%
95% threshold	Off- list	Band 8	Band 3
% off- list known + unknown	8.13%	4.39%	0%

Sam, who go for a walk and find bird costumes in a tree house. They decide to put them on and try flying. They stumble across some eggs. They take a closer look, but the mother bird attacks them. They tell the mother bird they are just looking. She answers that's OK and realizes they are sorry for having come too close. The boys leave and go to their grandmother's house where they tell her about their adventure (trip).

The burden of constructing meaning in this writing is heavily dependent on the reader (and, in this case, the marker who nevertheless gave the writing a satisfactory score). 'Wood chopper' is used for 'woodpecker', 'chrip' is an effort to write 'trip'. Lack of vocabulary such as 'hatch' (come out) leaves the writer over-utilizing the high frequency words to Band 3 – 4. Weak control over mechanics and spelling make this piece of writing difficult to read; several rereads are needed to get the full meaning of what this youngster was attempting to convey.

Summary. Table 1 summarizes these data for ease of comparison, and to provide a snapshot of the various indices of lexical diversity discussed in this section.

These figures provide stark and striking contrasts in vocabulary use among the standards that all are recognized as having achieved the acceptable benchmark for grade 3 writing in Alberta. It would seem that the PATs are not discriminating between the standards and providing feedback to local boards that will help teachers focus on the immediate instructional needs of an increasing demographic in large, urban settings. That is, teachers need to become far more aware of the role of language as curriculum unfolds in upper elementary school and beyond.

Discussion

It would appear that the current marking rubric for the (ELA) PATs does not sufficiently capture or recognize the role of language in learning. The vocabulary profiles of each of the standards underscore vocabulary as the central and crucial need of many children, particularly ELLs, from the earliest stages of the educational trajectory and into upper elementary. They must develop a robust vocabulary consisting of the mid and lower frequency and off- list (known) words for children that are referred to as tier 2 words in the literature (August, Carlo, Dressler & Snow, 2005; Beck & McKeown, 2007). These words can generally be found in the adult vocabulary range of 3,000 to 8,000 words. The profile information presented in this article indicates that youngsters at age 8 are transitioning to these more mature lexical choices. The research

community is unequivocal on the need for direct instruction in vocabulary (August, Carlo, Dressler & Snow, 2005; Beck, McKeown, & Kucan, 2002; Biemiller, 2004; Neuman, Newman & Dwyer, 2011; Stahl & Nagy, 2006). In addition children are increasingly accessing the academic word list words (Coxhead, 2000). Over time, the academic words will comprise approximately 10% of the words in academic texts. These words must also be introduced and taught explicitly and systematically, beginning at the very beginning stages of children's formal schooling in kindergarten since they are unlikely to be acquired through incidental exposure on the playground or on television; this is the language of books.

The children who demonstrate the standard of excellence are already accessing and using tier 2 words from the 'off- list known' words and academic words in their written work in grade 3. For the most part they acquired these words at home from dinner conversations; structured as well as open ended, imaginative play and from having been read to since very early childhood (Weizman & Snow, 2001; Hart & Risley, 2003). Also, having been early readers these children would have learned many new words through their independent reading. What these children have acquired and learned at home and on their own must be taught directly, explicitly and systematically to an increasing number of ELLs present in today's inclusive elementary classroom.

Pedagogical implications include the need to provide many exposures to new words, and opportunities to manipulate and transform these words across modalities: hear it, say it, see it, write it. A cluster approach has been found to be beneficial, helping children link word meaning to concept boundaries through categorizing activities and tasks that focus on the properties of key concepts such as animals, weather, food (Neuman, Newman & Dwyer, 2011). These can then be taught in thematic contexts to further produce connections. Oral storytelling, then transcribed into print (i.e. language experience approach) is another familiar strategy. Creating push out tasks that force children to move words they recognize orally and in print into words they can use independently in their written efforts builds on these earlier word learning tasks. In upper elementary it becomes more important to increase the volume of writing (and reading) and the expectations to follow the conventions of various genres, moving beyond narrative to working in expository mode (Moss, 2004). This will help to lessen the gap between the reading and writing outcomes reflected in the grade 3 (ELA) PATs.

The profile information presented in Table 1 suggests that children at the upper standards likely have an enormous reservoir of linguistic resources that are available at will for an array of writing demands. They use their vocabulary flexibly, with apparent ease and playfulness to describe, explain, and tell jokes. They are experimenting with academic, mid and low frequency vocabulary, metaphor, imagery and other literary devices.

The most important sources of new vocabulary in upper elementary will come from textbook reading and teachers' (and other adults') explanations of the meanings of those words. Children need to be taught strategies for accessing more difficult, abstract information: pre-reading, during reading and post-reading. All children need to become 'hooked on books' if they are to independently bootstrap their way to academic success. ELLs however, also need instruction in the mid-range (tier 2) vocabulary. While they may often be able to describe the use or function of items, for example 'things that get work done' (appliances) or 'ways of getting around' (transportation or vehicles), or 'shows the way to go' (directions), there are holes in their vocabulary knowledge that are unlikely to be addressed on the playground or in daily conversations. The acquisition of these words can be accelerated, since the concepts already exist in the child's cognitive framework.

From a policy perspective, teachers need to track and monitor all children's vocabulary growth over time starting early in the educational trajectory. Informal measures that can be linked to ongoing instruction can complement Alberta's two standardized testing programs: the PATs and the diploma examinations in grade 12. The profiling tools used to produce the profiles for this article are freely available and useful in gleaning insights into children's vocabulary use. Alberta Education must rethink the (ELA) PAT blueprint to take into account the gradual, protracted language learning development among so many youngsters who are marginally achieving the acceptable standard or failing in the longitudinal outcomes noted in grade 12. More, perhaps the minimal standard is simply too generous and sends a misleading message to teachers, parents and school jurisdictions: this same sample of ELL writing would not have been assessed as a level 3 on Alberta Education's ESL Benchmarks (2010). While the data are important indicators of language learning, the failure to identify them as linguistically at risk provides no favor to them in the long term.

There are many who look to Finland especially as a model for educational reform (Booi & Couture, 2011; Sahlberg, 2011). In reality, transforming educational practices requires more inward thinking than searching for outside solutions; socio-economic and political structures together with cultural diversity that define Alberta's current context would make it difficult to make comparisons or adopt Finnish practices: less poverty, greater social and economic equity, a far greater homogeneous demographic and a bureaucratically nimble education ministry— among other factors, all contribute to a culture of greater educational equity and commitment to social justice. As Sahlberg (2011, p. 4) aptly states, "It is better to have a dream of your own than to rent one from others." Nevertheless, there are indeed lessons to be gleaned from Finland's steady evolution over the past several decades, and the Alberta Teachers' Association has forged a partnership for reciprocal discussions and exchange visits. Ironically, as Finland begins to accept increasing levels of immigration (now pegged at around 10%) to fulfill its human resource needs of the future it may be turning to Alberta to learn more about teaching linguistically diverse students in school. May we be prepared to provide the kinds of research insights and pedagogical approaches they will be seeking in their partnership with Alberta.

Conclusion

First the good news: young writers who achieve the standard of excellence in grade 3 produce remarkable work on both qualitative assessment (i.e. trait based rubrics/holistic scoring) and quantitative measures (i.e. the vocabulary profile). The proportion of students at this standard, however, is decreasing across the K – 12 spectrum as increasing numbers of ELLs are now present in the general population, their scores generally falling far below their academic NS counterparts. It need not be this way: quality language learning programming can have a tangible impact on the educational outcomes of this growing learner profile.

The demographics of Alberta's elementary classrooms are shifting very rapidly. It is incumbent on school jurisdictions and Alberta Education to monitor achievement among all children, however, the instruments currently in use may not be sensitive to this shift and do not adequately capture the language learning demands of curriculum. This makes it possible for the language learning needs of increasing numbers of children—the growing number of ELLs, to remain unidentified and undetected, and ultimately, unaddressed. It is only many years later that their linguistic vulnerability becomes apparent. Often, it is too late at that point to intervene.

Of course, vocabulary output is a function of the task the child is asked to fulfill. Narrative tasks often set the lexical bar too low, meaning that all children regardless of their vocabulary knowledge can write to the topics without stretching their vocabulary knowledge. Care must be taken, therefore to raise the lexical bar, thereby making it possible to discriminate between the achievement standards on the basis of vocabulary use. Selecting and structuring the task that will accomplish this end will require field testing the items and creating a data bank of prompts that are accessible, engaging, relevant, culturally fair and invite each child to feel they can successfully complete the work.

Alberta Education currently is focused on an action plan of building inclusive classrooms. All children deserve to be challenged, and to enjoy success at the highest level of their potential. Without quantitative data and on-going tracking to note changes in the learning trajectory of various learner profile groups, it becomes easy to lose sight of this mandate in public education, short changing thousands of children of the education they need.

Acknowledgment

References

Alberta Education (2000). English language arts Program of Studies, K – 9.
http://education.alberta.ca/media/450519/elak-9.pdf
Alberta Education (2010). Alberta Education: English as a second language.
http://education.alberta.ca/teachers/program/esl.aspx
Alberta Education (2011a). Diploma examination results. Retrieved September 19, 2012 from
http://education.alberta.ca/media/6594446/dip%20graphs%20by%20course%202011.pdf
http://education.alberta.ca/media/6594762/2011_5yeardipexamresults.pdf
Alberta Education (2011b). Assessment highlights. Retrieved Feb. 13, 2012 from
http://education.alberta.ca/admin/testing/achievement/highlights.aspx
Alberta Education (2011c). English language arts Grade 3. Examples of the standards for students' writing 2011. Retrieved Feb. 18, 2012 from
http://education.alberta.ca/media/6634363/02%20ela3%20examplestudentwriting%202011_nolabel.pdf
Alberta Education (2012). Alberta Achievement tests. Subject bulletin. English language arts. Retrieved Feb. 22, 1012 from
http://education.alberta.ca/media/6347260/05%20ela3%20bulletin%202011-12.pdf
Alberta School Boards Association (2004). Students are our bottom line. Technical report. Retrieved Feb. 14, 2012 from
http://www.teachers.ab.ca/Publications/The%20Learning%20Team/Volume%2012/Number4/Pages/IssuesrelatedtoProvincialAchievementTests.aspx\
Alberta Teachers' Association (2009). Issues related to Provincial Achievement Tests. What parents need to know. *ATA Magazine, 12*(4). Retrieved Feb. 14, 2012 from

http://www.teachers.ab.ca/Publications/The%20Learning%20Team/Volume%2012/Number4/Pages/IssuesrelatedtoProvincialAchievementTests.aspx

Appel, R., & Vermeer, A. (1998). Speeding up second language vocabulary acquisition of minority children. *Language and Education, 12*(3), 159-173.

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

Beck, I. L., & McKeown, M.G. (2007). Increasing young low-income children's oral vocabulary repertoire through rich and focused instruction. *The Elementary School Journal, 107*(3), 251-271.

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

Biemiller, A. (2003). Oral comprehension sets the ceiling on reading comprehension. *American Educator*, Spring, 2003. Retrieved November 25, 2012 from
http://www.aft.org/newspubs/periodicals/ae/spring2003/index.cfm

Biemiller, A. (2004). Teaching vocabulary in the primary grades: Vocabulary instruction needed. In J. Baumann and E. Kame'enui (Eds.), *Vocabulary instruction: Research into practice*. New York, NY: The Guilford Press.

Blake, B., & Pope, T. (2008). Developmental psychology: Incorporating Piaget's and Vygotsky's theories in the classroom. *Journal of Cross Disciplinary Perspectives in Education, 1*(1), 59-67. Retrieved February 16, 2012 from http://wmpeople.wm.edu/asset/index/mxtsch/devopsych

Booi, L., & Couture, J-C. (2011). What Alberta can learn from Finland. *ATA magazine*, 92. Retrieved September 17, 2012 from
http://www.teachers.ab.ca/Publications/ATA%20Magazine/Volume%2092/Number-2/Pages/What-Alberta-can-learn.aspx

Brynildssen, S. (2000). *Vocabulary's influence on successful writing*. ERIC Digest D157. Retrieved from ERIC database. (ED446339)

Burger, J. & Krueger, M. (2003). A balanced approach to highs takes achievement testing: An analysis of the literature with policy implications. *International Journal for Leadership in Learning, 7*(4). Retrieved September 20, 2012 from
http://ijll.synergiesprairies.ca/iejll/index.php/ijll/article/view/413

Cameron, L. (2002). Measuring vocabulary size in English as an additional language. *Language Teaching Research, 6*(2), 145-173.

Calgary Board of Education. (2012). *Programming for English language learners*. Retrieved September 22, 2012 from http://www.cbe.ab.ca/programs/prog-esl.asp

Calgary Separate School District. (2010). Quick facts about our current ESL population. February 2010.

Chall, J. S., & Jacobs, V. A. (2003). The classic study on poor children's fourth grade slump. *American Educator*, Spring, 2003. Retrieved Nov. 28, 2011 from
http://www.aft.org/newspubs/periodicals/ae/spring2003/index.cfm

Coxhead, Averil. (2000). A new academic word list. *TESOL Quarterly, 34*(2), 213-238. Retrieved Feb. 18, 2012 from http://onlinelibrary.wiley.com/doi/10.1002/tesq.2000.34.issue-2/issuetoc

Crossman, K., & Pinchbeck. G. (2012). An Intensive Academic English Course for Gen1.5/ELLs Bound for Post-Secondary Studies: Curriculum design, development and implementation. *TESL Canada Journal, 29* (Special Issue 6),

Cummins, J. (1982). Tests, achievement and bilingual students. *National Clearinghouse for Bilingual Education, 9* (February).

Cummins, J. (1989). *Empowering Minority Students*. Sacremento, CA: California Association for Bilingual Education.

Dolch, E. (1948). *Problems in reading*. Champain, IL: The Garrard Press.

Douglas, S. (2010). *Non-Native English speaking students at university: Lexical richness and academic success* (Doctoral thesis). University of Calgary. Retrieved September 17, 2012 from
http://dspace.ucalgary.ca/bitstream/1880/48195/1/2010_Douglas.pdf

Field, J. (2011, October 13). Standardized tests are a poor measurement of learning. *Calgary Herald*, p. A12.

Fisher, R. (1998). Thinking about thinking: Developing metacognition in children. *Early Child Development and Care, 141*, 1-15. Retrieved Dec. 1, 2011 from http://www.teachingthinking.net/thinking/web%20resources/robert_fisher_thinkingaboutthinking.htm

Fraser Institute (2012). School Performance Alberta. How do schools compare? Retrieved Feb. 14, 2012 from http://www.fraserinstitute.org/report-cards/school-performance/alberta.aspx

Gentry, R. (1982). An analysis of development spelling in GNYS AT WORK. *The Reading Teacher*, November, 192 – 200.

Gignac, T. (2012, February 26). Rankled by rankings. 2012 Fraser Institute Report on Elementary Schools. *Calgary Herald*, pp. A1, A6.

Hakuta, K., Butler, Y. & Witt, D. (2000). *How long does it take English learners to attain proficiency?* ERIC Document Reproduction Service No. ED443275. Retrieved November 15, 2012 from http://www.stanford.edu/~hakuta/Publications

Hart, B., & Risley, T. (2003). The early catastrophe. *American Educator*, Spring 2003. Retrieved from http://www.aft.org/newspubs/periodicals/ae/spring2003/index.cfm

Klesmer, H. (1994). Assessment and teacher perceptions of ESL student achievement. *English Quarterly, 26*(3). 8 – 11.

Krashen, S., Long, M., Scarcella, R. (1979). Age, rate and eventual attainment in second language acquisition. *TESOL Quarterly, 13*, 573-582.

Lesaux, N., & Siegel, L. (2003). The development of reading in children who speak English as a second language. *Developmental Psychology, 39*(6), 1005-1019.

McClure, M. (2011, October 6). Calgary students exceed averages on achievement test. *Calgary Herald*, pp. A1, A13.

McEwen, N. (1995). Educational Accountability in Alberta. *Canadian Journal of Education, 20*(1), 27-44.

Moss, B. (2004). Teaching expository text structures through information trade book retellings. *The Reading Teacher, 57*(8), 710-718.

Murphy, H. et al (1957). The spontaneous speaking vocabulary of children in primary grades. *The Journal of Educational Research (Boston University), 140*, 1-105.

Nassaji, H. (2007). The development of spelling and orthographic knowledge in English as an L2: A longitudinal case study. *The Canadian Journal of Applied Linguistics, 10*(1), 77-98. Retrieved Nov. 25, 2012 from http://ojs.vre.upei.ca/index.php/cjal/issue/view/64

Neuman, S., Newman, E., & Dwyer, J. (2011). Educational effects of a vocabulary intervention of preschoolers' word knowledge and conceptual development: A cluster-randomized trial. *Reading Research Quarterly, 46*(3), 249- 272.

Roessingh, H. (2007, January 23). In rebuttal: Exams are the wake-up call for those who care. *Calgary Herald*, p. A13.

Roessingh, H. (2008). Variability in ESL outcomes: The influence of AOA and LOR on achievement in high school. *TESL Canada Journal, 26*(1), 87-107.

Roessingh, H. (2010). Vocabulary profiling of oral and written discourse: An assessment tool for working with ELLs K-12. In P. Dam & M. Cowart (Eds.) *Teaching English language learners: An international perspective* (pp. 417-441). Denton, TX: The Federation of North Texas Universities.

Roessingh, H. (2012). The importance of the prompt for eliciting language samples: Insights from research and considerations for practice. *TexELT: Texas English Language Teaching, 1*(1), 37-56. Retrieved Aug. 19, 2012 from http://www.textesolv.org

Roessingh, H., & Douglas, S. (2011). English Language Learners' transitional needs from high school to university: An exploratory study. *Journal of International Migration and Integration, 13*(3), 285-301. Retrieved from http://www.springerlink.com/content/n62629705u6jv66q/

Roessingh, H., & Douglas, S. (2012). Educational outcomes of English language learners at university.

Canadian Journal of Higher Education, 42(1), 80-97.

Roessingh, H., & Elgie, S. (2009). Early language and literacy development among young ELL: Preliminary insights from a longitudinal study. *TESL Canada Journal, 26*(2), 24-45.

Roessingh, H., Elgie, S., & Kover, P. (2012). *See how they write: Using lexical profiling tools to investigate children's written vocabulary development in Grade 3*. Manuscript submitted for publication.

Salmon, K. & Ettrich, M. (2012). Alberta K – 12 Proficiency Benchmarks. *TESL Canada Journal, 29* (Special Issue 6), 180-197. Retrieved November 16, 2012 from http://www.teslcanadajournal.ca/index.php/tesl/article/viewFile/1116/935

Sahlberg, P. (2011). *Finnish lessons: What can the world learn from educational change in Finland?* New York, NY: Teachers College Press, Columbia University. Retrieved November 24, 2012 from http://store.tcpress.com/0807752576.shtml

Senechal, M., Ouellette, G., & Rodney, D. (2006). The misunderstood giant: On the predictive role of early vocabulary to future reading. In D. Dickinson & S. Neuman (Eds) *Handbook of Early Literacy Research, Vol. 2*, pp. 173-182. New York, NY: Guildford Press

Stahl, S., & Nagy, W. (2006). *Teaching word meanings*. Mahwah, NJ: Lawrence Erlbaum Associates.

Statistics Canada (2009). *Measuring up: Canadian results of the OECD PISA study*. Retrieved September 17, 2012 from http://www.statcan.gc.ca/pub/81-590-x/81-590-x2010001-eng.htm and http://www.gov.pe.ca/photos/original/eecd_pisareporE.pdf

Stemach, G., & Williams, W. (2005). *Word Express. The First 2500 words of spoken English*. Novato, CA: Academic Therapy Publications.

Weizman, Z.O., & Snow, C.E. (2001). Lexical input as related to children's vocabulary acquisition: Effects of sophisticated exposure and support for meaning. *Developmental Psychology, 37*, 265-279.

Zwaagstra, M. (2009, November 17). Standardized testing enhances accountability. Don't axe provincial achievement tests. *Canada Free Press*. Retrieved Feb. 14, 2012 from http://www.canadafreepress.com/index.php/article/16967

Hetty Roessingh, PhD ......

Appendix A

Test blueprint for the Grade 3 English Language Arts PAT

Part A: Writing—*2011 Test Blueprint*

The blueprint for *Part A: Writing* identifies the scoring/reporting categories by which student writing is assessed and by which 2011 summary data are reported to schools and school authorities; a description of the writing assignment; and the achievement standards.

Writing Assignment and Reporting Categories	Description of Writing Assignments	Achievement Standards
Reporting Category	A picture prompt is presented to students. The picture is designed to help stimulate the students' imaginations and direct their writing. Before students discuss the picture prompt and	Students' achievement in each reporting category will be described according to the following descriptors: Excellent Proficient Satisfactory Limited
Content* (selecting ideas and details to achieve a purpose) Students select appropriate details to describe events and characters. Events and/or actions should be plausible within the context established by the writer.		
Organization* (organizing ideas and details into a coherent whole) Students organize ideas, events, and details in a coherent sequence.		
Sentence Structure (structuring sentences effectively) Students use a variety of sentence types and structures appropriately.	organize their ideas on the planning pages provided, the test description, instructions, and information about the picture prompt are read out loud by the teacher.	Poor Insufficient
Vocabulary (selecting and using words and expressions correctly and effectively) Students use words and expressions appropriately and effectively.		
Conventions (using the conventions of written language correctly and effectively) Students communicate clearly by adhering to appropriate spelling, punctuation, and capitalization.		

*Content *and* Organization *are weighted to be worth twice as much as each of the other categories*

Retrieved Feb. 16. 2012 from
http://education.alberta.ca/media/6617365/06%20ela3%20assess%202011%20english.pdf

Appendix B

Standard of Excellence: I tried to raise a bird

Illustrative example and ==Lexical vocabulary profile== from the grade 3 PATs, 2011.

'Mom! I'm going outside to play,' yelled Matt. 'Okay honey,' his mother replied. Matt was a curious five year old. He had shiny brown hair and sparkling brown eyes. Birds fascinated him, but he disliked getting in trouble. Getting lost was his fear. As he happily skipped along to reach for his soccer ball, Matt noticed a birds nest with chicks in it. 'What a surprise!' he exclaimed. Dazzled by their cuteness, Matt felt that he positively needed one of the chicks. As he picked one up, he thought about where in his backyard he should keep it. 'Chirp' went the chick. In Matt's backyard you would see his mother's beautiful vase on a glass table. Flowers and mint leaves would be the smells you would experience. Berries would be the taste. Of course you would hear birds chirping. Finally, you would feel wet grass. 'Raising a chick is fairly tricky,' Matt thought to himself. 'Now what should I feed this young bird?' 'Corn! That's it!!' he exclaimed. Running as quickly as his legs would take him Matt scurried to the screen door connected to the wall of his house, opened it and quickly scurried to his mother. 'Mom! Mom! Do we have corn?' he asked in a loud voice. 'Sorry sweetheart, we don't have corn,' his mother sadly told him. 'Oh no, now I won't be able to raise my chick. 'A chick! Honey, you can't take care of a chick, set him free.' Sadly moping, Matt carried the chick to his backyard. 'It's best for you,' he whispered. 'Chirp,' the chick chirped quietly. Both Matt and the chick knew they would miss each other. They also knew they always meet again.

Home > VocabProfilers > English (Kids) > Output

VP-KIDS OUTPUT FOR FILE: Untitled

Stoplist (propers etc dropped): matt okay oh (total 11 tokens)

Note: In the output text, punctuation is eliminated; all figures (1, 20, etc) are replaced by the word *number*, contractions are replaced by constituent words (*won't => will not*); type-token ration is calculated using said constituents; and in the 1k sub-analysis content + function words may sum to less than total (depending on user treatment of proper nouns and program decision to class numbers as 1k although not contained in 1k list).

Freq. Level	Families	Types	Tokens	Coverage%	Cum%
Kid250 - 1:	59	71	180	61.02	61.02%
Kid250 - 2:	22	24	39	13.22	74.24%
Kid250 - 3:	12	12	12	4.07	78.31%
Kid250 - 4:	11	12	14	4.75	83.06%
Kid250 - 5:	6	6	8	2.71	85.77%
Kid250 - 6:	6	7	10	3.39	89.16%
Kid250 - 7:	3	3	3	1.02	90.18%
Kid250 - 8:	2	2	2	0.68	90.86%
Kid250 - 9:				0.00	90.86%
Kid250 - 10:	4	4	4	1.36	92.22%
Off-List known:	6	6	6	2.03	94.25%
Off-List unknown:	?	12	17	5.76	100.00%
Total	131+?	159	295	100%	100%

Words in text (tokens): 295
Different words (types): 159
Type-token ratio: 0.54
Tokens per type: 1.86

Pertaining to onlist only
Tokens: 278
Types: 147
Families: 131
Tokens per family: 2.12
Types per family: 1.12

For easy editing as MS Word table - Edit/print-friendly table

Page Menu: Tokens Types Families

Integral text: i tried to raise a bird mom i am going outside to play yelled matt okay honey his mother replied matt was a curious five year old he had shiny brown hair and sparkling brown eyes birds fascinated him but he disliked getting in trouble getting lost was his fear as he happily skipped along to reach for his soccer ball matt noticed a birds nest with chicks in it what a surprise he exclaimed dazzled by their cuteness matt felt that he positively needed one of the chicks as he picked one up he thought about where in his backyard he should keep it chirp went the chick in matt backyard you would see his mother beautiful vase on a glass table flowers and mint leaves would be the smells you would experience berries would be the taste of course you

Appendix C

Proficient standard: Tom and the chicks

Illustrative example and Lexical vocabulary profile from the grade 3 PATs, 2011.

Tom rapidly ran around the living room in his bird suit. He jumped off the couch and pretended he could fly like a bird. 'Breakfast is ready!' Tom's mom yelled. 'I smell eggs.' Tom said back. 'I love eggs.' Tom gobbled his food like a turkey. He went outside to play. 'Chirp chirp!' Tom heard a blue jay. Tom ran to the bird. 'No mom.' Tom said he felt bad for the blue jays'. Only 1 had hatched out of all 3. The other birds are really cold so Tom acted like a bird. Crack number 2 coming up. But no number 3. 'I'm gonna try harder .' Tom felt sad so, so sad he rubbed his wet and puffy eyes. Next Tom tried to help find the mom by chirping but no mommy blue jay. 'What would I do with no mom?' Tom thought. He felt disappointed his face twitched uncontrollably.

Then he tried finding the mom by smell. He looked in the park in the slide under the bench behind the swing but no blue jay. Tom felt tired so he went home and took a long nap. When he woke up he remembered that the 3 eggs hadn't hatched so he ran outside to check it was warm so he waited. Finally he could not take it no more so he left the chicks alone. 'CHIRP.' Wow that was loud so when Tom got outside the mother was feeding her 3 babies so the third one had hatched. 'Yay!' Tom was very happy he had a toothy grin fill his face what a happy family!

VP-KIDS OUTPUT FOR FILE: Untitled

Stoplist (propers etc dropped): tom gonna yay wow (total 18 tokens)

Note: In the output text, punctuation is eliminated; all figures (1, 20, etc) are replaced by the word *number*; contractions are replaced by constituent words (*won't* => *will not*); type-token ratio is calculated using said constituents; and in the 1k sub-analysis content + function words may sum to less than total (depending on user treatment of proper nouns and program decision to class numbers as 1k although not contained in 1k list).

Freq. Level	Families	Types	Tokens	Coverage%	Cum%
Kid250 - 1:	64	73	180	65.93	65.93%
Kid250 - 2:	20	22	38	13.92	79.85%
Kid250 - 3:	16	16	19	6.96	86.81%
Kid250 - 4:	7	7	10	3.66	90.47%
Kid250 - 5:	4	4	4	1.47	91.94%
Kid250 - 6:	2	2	3	1.10	93.04%
Kid250 - 7:	3	3	3	1.10	94.14%
Kid250 - 8:	1	1	3	1.10	95.24%
Kid250 - 9:				0.00	95.24%
Kid250 - 10:	1	1	1	0.37	95.61%
Off-List known:	2	2	2	0.73	96.34%
Off-List unknown:	?	6	10	3.66	100.00%
Total	120+?	137	273	100%	100%

Words in text (tokens): 273
Different words (types): 137
Type-token ratio: 0.50
Tokens per type: 1.99

Pertaining to onlist only
Tokens: 263
Types: 131
Families: 120
Tokens per family: 2.19
Types per family: 1.09

For easy editing as MS Word table - Edit/print-friendly table

Page Menu: Tokens   Types   Families

Integral text: tom and the chicks tom rapidly ran around the living room in his bird suit he jumped off the couch and pretended he could fly like a bird breakfast is ready tom mom yelled i smell eggs tom said back i love eggs tom gobbled his food like a turkey he went outside to play chirp chirp tom heard a blue jay tom ran to the bird no mom tom said he felt bad for the blue jays only number had hatched out of all number the other birds are really cold so tom acted like a bird crack number number coming up but no number number i am gonna try harder tom felt sad so so sad he rubbed his wet and puffy eyes next tom tried to help find the mom by chirping but no mommy blue jay what would i do with no mom tom thought he felt disappointed his face twitched

Appendix D

Satisfactory Standard: Bird Troble
Illustrative example and ==Lexical vocabulary profile== from the grade 3 PATs, 2011.

'I caught you Sam!' I want to go for a walk do you yes I see some thing max then let's go closer to it that a tree house I am going in 'Said!' sam and max. I see costomes. 'I am going to wear it sam okyn it fit's me sam it has two eyes it has two whings a nose and moth. We found out it was a wood chopper so they stared flying max and sam. They saw eggs one came out the bird the came out it was looking at max and sam. Max and sam just went to see what is in there 'help' a mother bird let's run sam they stored flying the mother bird was still fly after them they they saw the tree house they went in there and look out the wood choper close out then the mother bird saw 'they said we just went to see the egg. That is ok you sorry.' Then when they came back they saw there gramother there. Then they went with there gramother to her house. At there gramother house they remember the chrip.

(In the lexical profile below, the spelling was corrected to enable the profiling.)

Home > VocabProfilers > English (Kids) > Output

VP-KIDS OUTPUT FOR FILE: Untitled

Stoplist (propers etc dropped): max sam okyn ok (total 15 tokens)

Note: In the output text, punctuation is eliminated; all figures (1, 20, etc) are replaced by the word *number*, contractions are replaced by constituent words (*won't => will not*); type-token ration is calculated using said constituents; and in the 1k sub-analysis content + function words may sum to less than total (depending on user treatment of proper nouns and program decision to class numbers as 1k although not contained in 1k list).

Freq. Level	Families	Types	Tokens	Coverage%	Cum%
Kid250 - 1:	52	60	164	84.97	84.97%
Kid250 - 2:	9	11	16	8.29	93.26%
Kid250 - 3:	6	7	8	4.15	97.41%
Kid250 - 4:	1	1	2	1.04	98.45%
Kid250 - 5:	2	2	2	1.04	99.49%
Kid250 - 6:	1	1	1	0.52	100.00%
Kid250 - 7:				0.00	100.00%
Kid250 - 8:				0.00	100.00%
Kid250 - 9:				0.00	100.00%
Kid250 - 10:				0.00	100.00%
Off-List known:				0.00	100.00%
Off-List unknown:	?	0	0	0.00	100.00%
Total	71+?	82	193	100%	100%

Words in text (tokens): 193
Different words (types): 82
Type-token ratio: 0.42
Tokens per type: 2.35

Pertaining to onlist only
Tokens: 193
Types: 82
Families: 71
Tokens per family: 2.72
Types per family: 1.15

For easy editing as MS Word table - Edit/print-friendly table

Page Menu: Tokens   Types   Families

Integral text: **bird trouble** i caught you sam i want to go for a walk do you yes i see some thing max then let go **closer** to it that a tree house i am going in said sam and max i see **costumes** i am going to **wear** it sam okyn it **fit** is me sam it has two **eyes** it has two **wings** a **nose** and **mouth** we **found** out it was a wood **chopper** so they started **flying** max and sam they saw **eggs** one came out the **bird** the came out it was looking at max and sam max and sam just went to see what is in there **help** a mother **bird** let run sam they **started flying** the mother **bird** was **still fly** after them they they saw the tree house they went in there and look out the wood **chopper close** out then the mother **bird** saw they said we just went to see the **egg** that is ok you **sorry** then when they