

**From Books as Coasters to Bedtime Stories:
*Family Literacy in Alberta's Next Generation***



January 27, 2006

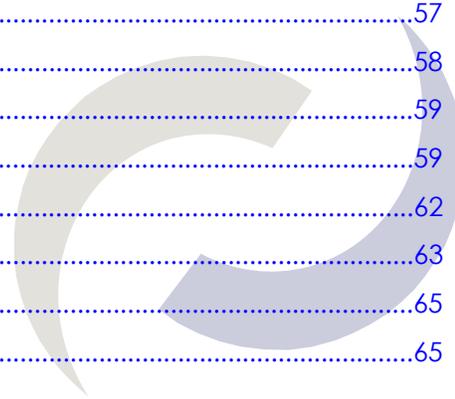


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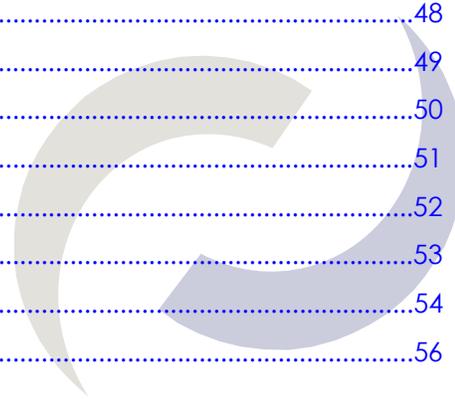


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Executive Summary

Pivotal Research partnered with the Centre for Family Literacy to research family literacy in the workplace. The purposes of the research were to identify current family literacy practices and the implications for Alberta's next generation and to understand the human stories behind literacy statistical data. Required literacy levels at work and at home as well as family literacy experiences, achievements and expectations were the focus of this study. In-person interviews were conducted with employees in five occupation categories. Interviewees represented a variety of industries including construction, education and business services. The criterion for participation was having a child under the age of 18. While the small sample size prevents generalizing results to the overall population, several key findings were identified.

- Although Level 3 literacy skills are considered necessary to function in today's knowledge based and high technology society, increasingly it seems those in the workforce require higher levels of prose and document literacy, numeracy and problem solving with most occupations in this study requiring literacy at Levels 4 and 5.
- Recreation and non-work activities are demanding a higher level of prose literacy to function effectively than levels required in the past.
- High levels of problem solving ability are required at both work and home which may reflect the changing nature of society and the challenges people face on a day-to-day basis.
- The previous generation tended to emphasize the work ethic rather than literacy requirements. Despite this focus, respondents' parents did engage in family literacy practices such as reading to their children and other positive reading, writing and numeracy modeling behavior.
- Employees appear to recognize they require greater levels of skills for their work and engage in professional development activities to fill knowledge and skill gaps.
- Respondents have high expectations for their children regardless of their own achievements, occupation or literacy levels.
- Most respondents read daily to their children regardless of the parents' occupation level. However, there appears to be less importance placed on modeling behavior, suggesting that parents may be unaware of the effects their active and passive modeling have on their children.
- The demand for high literacy skills across all domains emphasizes the importance of investing in literacy initiatives that build and maintain proficiency levels to keep our workforce competent and competitive.

Acknowledgements

We would like to express our appreciation for all who agreed to be interviewed for this project and to share their stories with us. We thank their employers who allowed us to conduct interviews at their workplaces.

We would also like to acknowledge the support of the following people who facilitated interviews with some staff in their organizations:

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Vice President and Manager
Pipe Fabrication Facility and Module Assembly Yard
PCL Industrial Constructors Inc.

Sandra Thornton
Director of Communication
S tantec Inc.

Brian Hunt
Director, Human Resources
A ll Weather Windows

Other respondents were selected from a variety of companies in different industries.



Introduction

Pivotal Research Inc. partnered with the Centre for Family Literacy to research family literacy in the workplace. The purposes of the research were to identify current family literacy practices and the implications for Alberta's next generation and to understand the human stories behind literacy statistical data. The objectives of the research were to measure the importance and requirements of literacy in various occupations, to learn more about family attitudes toward literacy and to understand the effect of parents' expectations and behavior on their children.

The *International Adult Literacy and Skills Survey* (IALSS) research conducted by Statistics Canada in 2003 provided the foundation for the current study. The research included measurements of engagement in literacy activities at home and at work by analyzing the relationship between parents' education and skills level by comparing socioeconomic gradients of several cohorts of adults. However, there were no comparisons among generations, by occupation or discussion of literacy expectations. Data reported were quantitative only, reporting results numerically.

The current study measured family literacy in two ways. First, the requirements of literacy in a range of occupations were determined using the four skill assessment domains as described in the IALSS. Second, case studies were developed for a sample of occupations to measure family literacy expectations when the respondent was growing up, the education, training and professional development the respondent has pursued and how the respondents communicate family literacy values to their children.

The current research developed cumulative case studies that included retrospective, current and prospective data about the importance of literacy by occupation categories and by family literacy experiences, achievements and expectations. The case study approach will assist in understanding how family literacy in Alberta has evolved over generations and will add to knowledge generated from other research. The results will also help to guide the development of strategies to address this social concern.

Note that this exploratory research involved a small sample size; the results that follow are not generalizable to the larger population.



Background

Research shows literacy, numeracy and problem solving skills affect individuals' economic and social potential as well as the ability to engage in life long learning, whether this relates to skills or knowledge or participation in social networks and communities.

The IALSS research involved testing over 23,000 Canadians 16 years of age and older to determine proficiency in four literacy domains. Demographic characteristics and other variables such as educational achievement, occupation, income and engagement in adult learning and community activities were also measured. The IALSS measured literacy and numeracy along a continuum of proficiency rather than differentiate between those who are literate or "illiterate".

Literacy domains

Each of the literacy domains includes a measurement of knowledge and skills pertaining to specific tasks.

Prose literacy

Prose literacy is "the knowledge and skills needed to understand and use information from texts including editorials, news stories, brochures and instruction manuals."

Document literacy

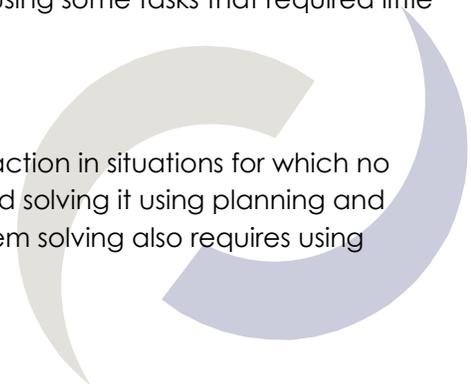
Document literacy is defined as "the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables and charts."

Numeracy

This type of literacy refers to "the knowledge and skills required to effectively manage the mathematical demand of diverse situations." Mathematics skills and conceptual mathematical knowledge were measured to determine the ability to perform mathematical operations on data embedded in text using some tasks that required little or no reading.

Problem solving

Problem solving includes "goal-directed thinking and action in situations for which no routine solutions exist." Understanding the problem and solving it using planning and reasoning are measured in this literacy domain. Problem solving also requires using literacy and numeracy knowledge and skills.



Literacy levels

Prose and document literacy and numeracy are measured on a proficiency scale from 0 to 500 and problem solving is measured on a scale from 0 to 400. Lower proficiency scores correspond to relatively simple tasks and levels of difficulty increase along a continuum to the maximum score.

Prose literacy

Table 1 describes the tasks and the corresponding level of difficulty of prose literacy.

Table 1. Prose literacy levels of difficulty

Level	Score	Task
1	0 – 225	Find information in a short text
2	226 – 275	Compare information based on specified criteria; ignore implausible information
3	276 – 325	Match information to text; may require making basic inferences
4	326 – 375	Make complex inferences from lengthy, complicated text and incorporate conditional information
5	376 – 500	Find information in dense text with numerous distractors, making high level inferences or use specialized background knowledge

An easy task with a difficulty value of 188 required determining the maximum number of days medicine should be taken by reading the medicine label. This task was rated at Level 1 because the person had only to identify one piece of information.

As the level of difficulty increases, the number and nature of distractors in text increases. To achieve a prose literacy score of 377, a person was required to read an announcement from an employee support initiative and list ways the initiative assists people who lost their jobs because of departmental reorganization. The question had multiple phrases the person had to remember while reading the text and the information was organized in a complex format and dispersed under various headings that may or may not have had the conditional information (i.e., people who lost jobs because of departmental reorganization). This task was rated the most difficult because it required a person to provide multiple responses based on text-based inferences from information that had relevant responses embedded in numerous areas and with a set of distractors.

Document literacy

Table 2 describes the tasks associated with the various levels of document literacy proficiency.

Table 2. Document literacy levels of difficulty

Level	Score	Task
1	0 – 225	Enter information from personal knowledge into a document
2	226 – 275	Identify information from different parts of a document
3	276 – 325	Identify multiple pieces of information from two or more documents ignoring tables containing irrelevant information
4	326 – 375	Identify information in documents using multiple-feature matches; provide numerous responses and incorporate conditional information
5	376 – 500	Search through complex text with multiple distractors and use specialized knowledge to make high level text-based inferences

An easy document literacy task with a value of 188 required identifying a percentage of Greek teachers who are women from a chart showing the percentage of women teachers from various countries. The task was rated as easy because the one piece of information requested was stated clearly in the chart.

The most difficult task with a score of 408 required identifying an average advertised price for a radio with the highest performance rating. The person had to match four features, process conditional information and address distractors.



Numeracy

Table 3 shows the levels of difficulty of numeracy proficiency.

Table 3. Numeracy levels of difficulty

Level	Score	Task
1	0 – 225	Understand basic math such as counting, sorting
2	226 – 275	Identify and understand basic math concepts and estimations involving percents, fractions, simple measurements
3	276 – 325	Understand math information shown in symbols, maps, graphs and drawings; able to interpret proportions, data and statistics in text with distractors
4	326 – 375	Understand abstract math information from complex texts; use multiple steps to find solutions to problems requiring complex reasoning and interpretation skills such as working with formulas
5	376 – 500	Understand complex representations, abstract and formal math and statistical ideas

The easiest task with a score of 174 required counting the number of pop bottles shown in a photograph.

The most difficult task with a score of 380 required entering text information as variables in a formula, conducting calculations and comparing the result to an expected amount. The task was rated as the most difficult because it involved percentages, calculations with or without a formula, integration of several steps and several types of operations. It also required knowledge and skills in formal mathematical information and greater comprehension of non-routine calculations that are not usually part of normal everyday routines.



Problem solving

Table 4 describes the tasks associated with the levels of difficulty of problem solving knowledge and skills.

Table 4. Problem solving levels of difficulty

Level	Score	Task
1	0 – 250	Perform concrete task with limited amount of reasoning; draw direct consequences
2	251 – 300	Evaluate alternatives with well defined, explicit criteria; use step-by-step reasoning combining information from different sources
3	301 – 350	Order several objectives according to criteria; solve a problem involving non-obvious or multiple constraints; reasoning is non-linear and requires coping with multi-dimensional or ill-defined goals
4	351 – 500	Judge completeness, consistency, dependency among multiple criteria, explaining how solution was reached and why it is correct; reason using meta-perspective, taking into account entire system of problem solving states and possible solutions but criteria and goals must be inferred before beginning solution process

As an example, a scenario was described and the person was required to identify and work through steps. Planning a trip and family reunion had steps including setting a date for the reunion by processing, comparing and integrating information from relatives' appointments, an addendum and another appointment book. Other activities included organizing activities according to requests and dates, arranging flights and planning trips to and from the destination.



Alberta's position

Along with Yukon, Saskatchewan and British Columbia, Alberta adult proficiency scores are significantly above the Canadian average across all literacy domains. However, there is a large number of Canadians aged 16 and older who perform below Level 3 on the prose and document literacy scales. Since Level 3 is considered the minimum achievement level for people to adequately function in a highly technological environment, a significant number of people in the workforce are likely to experience serious challenges in coping with skill demands in a global, competitive and knowledge based economy.

Highlights of Alberta's position include:

- The Prairie provinces have the highest percentage (72%) of people engaged in active learning activities. People who function at Levels 4 and 5 for document literacy are twice as likely as those functioning at Level 1 to participate in informal learning activities. Continuous learning helps to maintain competencies as well as build new ones.
- Generally, men have higher proficiency in numeracy than women.
- There is a relationship between literacy and employability. Alberta and Saskatchewan are among the highest scoring jurisdictions in Canada and while those unemployed in other provinces score around Level 2, unemployed people in Alberta score at the lower end of Level 3.
- Alberta has one of the highest proportions of knowledge experts with literacy scores in Levels 4 and 5.
- Approximately one in five workers in primary industries is at Levels 4 and 5.
- Youth ages 16 to 25 account for 15.2 percent of Alberta's population. Although the proportion of youth with proficiency at Level 3 or higher is greater than the proportion of youth at Levels 1 and 2, over one third of youth currently have attained only Levels 1 and 2. This low level of functioning negatively affects post secondary education and success in the labor market.

These key findings illustrate the importance of building and maintaining human capital in workers currently in or looking to enter the province's labor market.



Research Methods

The current research attempted to identify the relationship between literacy in the workplace and family literacy by building on the IALSS data. Literacy levels at work and at home and family literacy experiences, achievement and expectations provided the data for this study. In-person interviews were conducted with employees in five occupation categories in October and November 2005. Interviews were between 20 and 45 minutes in length.

Interviewees represented a variety of industries including construction, education and business services. The criterion for participation was having a child under the age of 18 living at home.

An interview protocol was developed to measure literacy requirements on the job and at home. Interviewees were shown a table describing the levels of prose and document literacy, numeracy and problem solving and determined with the interviewer's assistance the levels for required for each literacy domain at work and at home.

People were then asked about family literacy experiences when they were growing up. These experiences related to parents' education level and academic achievement expectations for their children. Modeling behavior was also recorded. For example, these questions related to whether parents read to their children, helped with homework, engaged in reading, writing or rhyming, watched educational television programs and made social or cultural excursions such as visiting museums, art galleries or other educational exhibits.

Family literacy achievements were recorded next. This information included level of education achieved as well as personal and professional development. Modeling behavior included the amount of reading, writing and rhyming behaviors as well as amount and type of television viewing and computer use. Reading to children and helping with homework were recorded as was amount and type of social and cultural excursions.

Interviewees were asked about their expectations for their children's academic achievement. The amount and type of television programs watched and computer activities and websites the parents and children visited were recorded. Children's reading, writing and rhyming activities were determined next.

The interview protocol is included in Appendix B.



Rationale for approach

The evaluation design used a case study approach for several reasons. First, this approach was an effective method to obtain in depth experiences from people in various occupations, enabling comparisons between occupation levels and family literacy expectations, achievements and expectations. While the data collected are rich in quality, they are not generalizable to all occupations and job categories. Second, this method provided a way to identify effects or relationships that are difficult or impractical to measure. For example, while a relationship between literacy and employment success has been established, literacy is one factor among many that determines success in the workforce. Finally, case studies provide detailed understanding of complex family literacy issues and much can be learned from a small number of exemplars. Case histories add strength to interpretations of quantitative data and findings from other research.

Levels of occupations and job categories

Occupations were categorized according to the National Occupational Classification Matrix (Human Resources Development Canada, 2001) with a minor revision. The matrix provides classifications based on skill level and skill type. Five skill levels were used for the current research as follows:

1. Skill Level 0, senior management occupations
2. Skill Level A occupations, those requiring university education
3. Skill Level B occupations, those requiring college education or apprenticeship training
4. Skill Level C occupations, those requiring secondary school and/or occupation specific training
5. Skill Level D occupations, those that provide on-the-job training

Within in each skill level, job types are categorized into major groups according to industry or skill types. The major groups are organized numerically and are then broken down into specific jobs.

The National Occupational Classification Matrix was chosen as the method to categorize occupations because it is standardized and represents a logical way to identify skill levels. Table 5 provides examples of occupation skills and types included in the matrix. Skill levels and types that do not have occupations are shaded to indicate they are not applicable.

Table 5. National Occupational Classification Matrix occupation skills and types

Skill type	Skill level 0	Skill level A	Skill level B	Skill level C	Skill level D
	Management occupations	University education	College education/ apprenticeship	Secondary school/ occupation-specific training	On-the-job training
Business, finance and administration occupations	Financial manager IT manager Project manager HR administrator Banking manager Messenger service manager	Project accountant Investment advisor Financial auditor Stockbroker Human resources consultant Mediator	Executive assistant Financial aid officer Secretary Clerical supervisor Customs officer Credit officer	Administrative assistant Data entry clerk Receptionist Payroll clerk Newspaper carrier Shipper-receiver	
Natural and applied sciences and related occupations	Director of engineering Electrical engineering manager Architectural manager Information systems manager Manager of data processing	Statistician Web site developer Mine geologist Immunologist Engineer Land surveyor	Groundwater technologist Welding technologist Conservation technician Communications technician Architectural draftsman Internet technician		
Health occupations	Chief of medical staff Director of home care services Director of nursing Occupational therapy director	Physician Dentist Veterinarian Optometrist Physiotherapist Registered nurse	Medical lab technician Respiratory therapist Dental hygienist Veterinarian assistant Optician Licensed practical nurse	Certified dental assistant Nurse aide Psychiatric aide Chiropractic assistant Optometrist assistant Physiotherapy assistant	

Table 5. Continued

Skill type	Skill level 0	Skill level A	Skill level B	Skill level C	Skill level D
	Management occupations	University education	College education/ apprenticeship	Secondary school/ occupation-specific training	On-the-job training
Occupations in social science, education, government service and religion	Social services director Manager of health programs Education curriculum development manager	Judge Lawyer University professor Psychologist Clergy Probation officer	Paralegal Addictions worker Youth worker Career counselor Day care worker Driving instructor		
Occupations in art, culture, recreation and sport	Art gallery manager Library director Museum administrator Editor-in-chief Radio station manager	Videographer Librarian Copy editor Journalist Choreographer Film editor	Photographer Graphic arts technician Library technician Television camera operator Broadcaster		
Sales and service occupations	Corporate sales manager Director of public relations Fundraising manager Car dealership manager Catering service manager Police chief		Department store supervisor Wholesale representative Insurance agent Baker Police officer Firefighter	Department store clerk Flight attendant Travel agent Correctional Service Officer School Teacher Assistant	Cashier Security guard Building superintendent Amusement ride operator Baggage porter Dry cleaner

Table 5. Continued

Skill type	Skill level 0	Skill level A	Skill level B	Skill level C	Skill level D
	Management occupations	University education	College education/ apprenticeship	Secondary school/ occupation-specific training	On-the-job training
Occupations unique to primary industry	Director of mining Manager of fishing operations Manager of forestry operations Manager of gas field operations		Logging contractor Mine foreman/woman Rig manager Operator, mechanical harvester Farmer	Mine construction worker Forest worker Forest firefighter Thinning saw operator General farm worker Hunter	Harvest hand Golf course worker Landscape laborer Laborer, oil field Logging laborer
Occupations unique to processing, manufacturing and utilities	Factory superintendent Printing plant manager Electric power plant manager Petroleum products manager		Supervisor, glass cutters Processing supervisor Supervisor, power station Supervisor, manufacturing Pulping technician	Concrete finisher Extruder operator Weaver – textiles Leather buffer Fish cleaner and cutter	Gas utility laborer Plywood drier feeder Textile machine cleaner Meat packager Upholsterer helper
Trades, transport and equipment operators and related occupations	Material controller General contractor Airport manager Facility operations manager Warehouse manager		Pipefitter Carpenter Crane operator Upholsterer Printing press operator	Material control assistant Truck driver Heavy equipment operator Railway yard worker Forklift truck operator	Laborer Demolition worker Plumber helper Road maintenance worker Truck driver helper

Results

The first set of tables and figures illustrates the levels of literacy required for occupations and home environments. This section is followed by literacy experiences, achievements and expectations. The discussion section consolidates these results. Future directions include suggestions for future research and a call to action.

Table 6 shows the distribution of occupations of the interviewees. The industries are those described in the National Occupational Classification Matrix.

Table 6. Occupations by industry

Occupation code	Business	Natural and applied sciences	Art and culture	Trades and laborers
0	4			1
A	2	1	2	
B	3		1	1
C	4			1
D				2

Literacy levels

Just as all occupations require a certain level of literacy skills so too does ability to function in the home environment. Interviewees were asked to rate the level of literacy required for their occupations and the level of literacy they use in activities at home and in other non-work environments. Literacy levels were recorded for each of the four literacy domains.



Prose literacy

Figure 1 shows the relationship between prose literacy skills required on the job and at home. Over half of the occupations require prose literacy skills at Levels 4 and 5. One third of the interviewees said their home and non-work environments require prose proficiency at Level 3. This is also the minimum recommended proficiency level to adequately function in our modern technological society.

Figure 1. Prose literacy

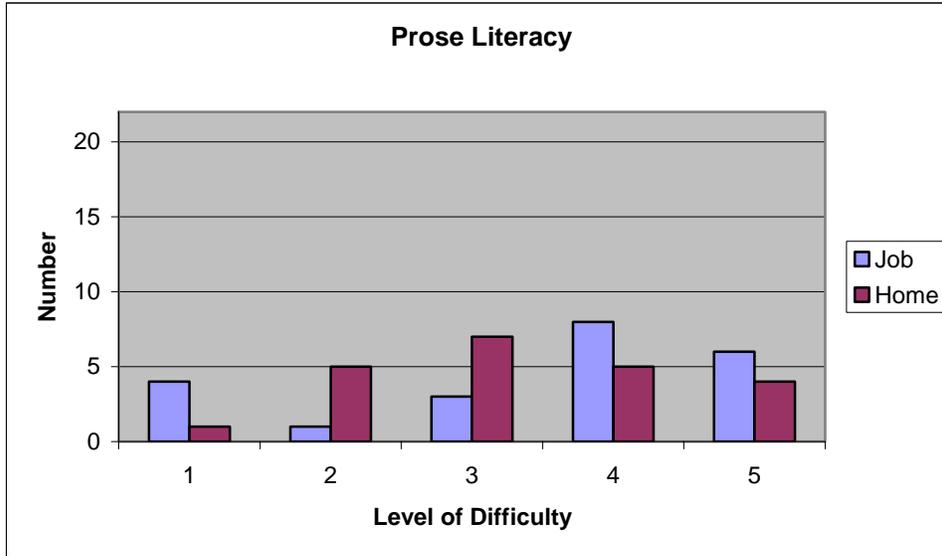
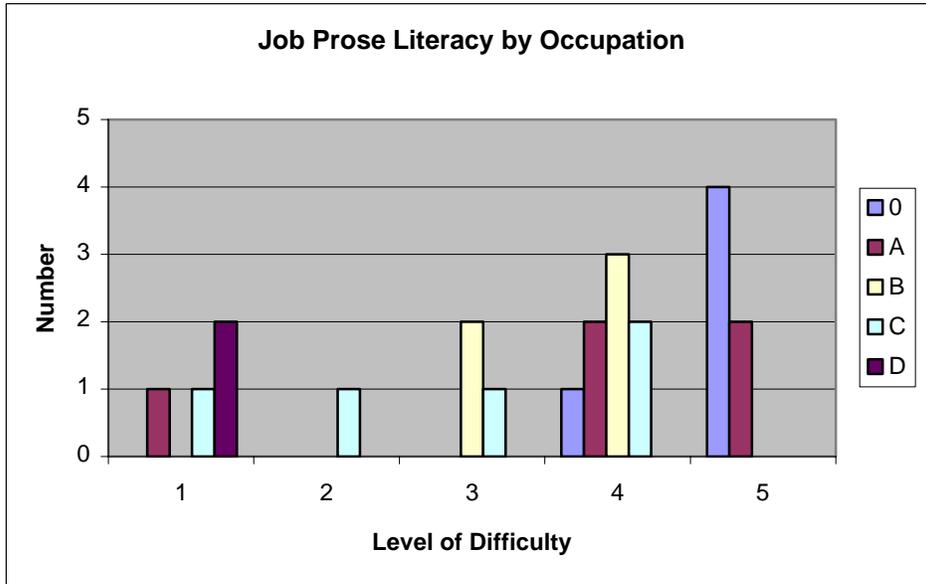


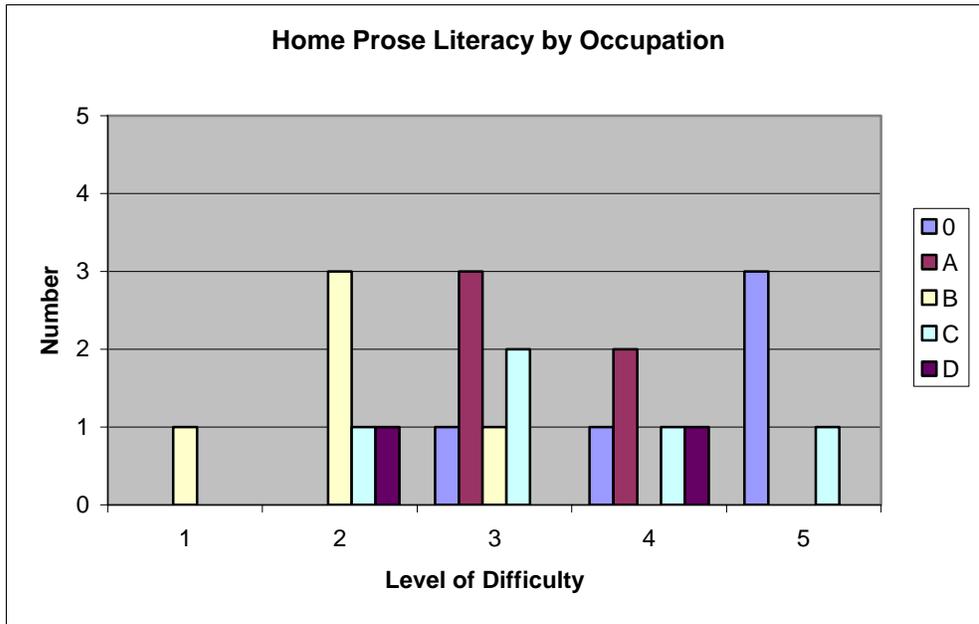
Figure 2 shows the level of prose literacy required by level of occupation. As expected, senior management positions require the highest level of prose literacy while the lower skill occupations require a minimum level of prose literacy. All occupation categories with the exception of those in Skill Level D require prose literacy proficiency at Level 4, suggesting the recommended minimum of Level 3 may not be sufficient to function effectively in the occupations surveyed.

Figure 2. Job prose literacy by occupation



The level of prose literacy required at home and in non-work environments is clustered around proficiency Levels 3 and 4. Three senior managers and one Level C occupation indicated their non-work activities require proficiency at Level 5. This result implies recreation activities are also demanding a higher level of prose literacy to function effectively.

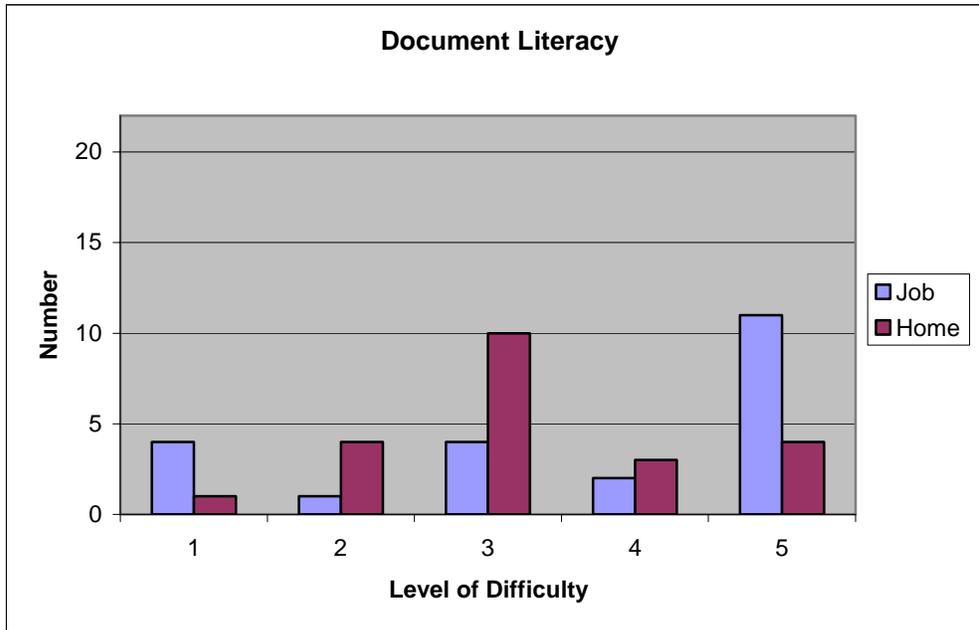
Figure 3. Home prose literacy by occupation



Document literacy

As with prose literacy proficiency, occupations tend to require high levels of proficiency in document literacy with half of interviewees indicating they require the highest skill level for their occupations. Document literacy requirements for home activities are less stringent with 15 interviewees stating they require proficiency at Level 3 or lower. Figure 4 shows the response distribution.

Figure 4. Document literacy levels



All occupations with the exception of Skill Level D occupations require the highest level of document literacy. Figure 5 shows the clustering at this proficiency level. Skill Level D occupations require the lowest level of document literacy only.

Figure 5. Job document literacy by occupation

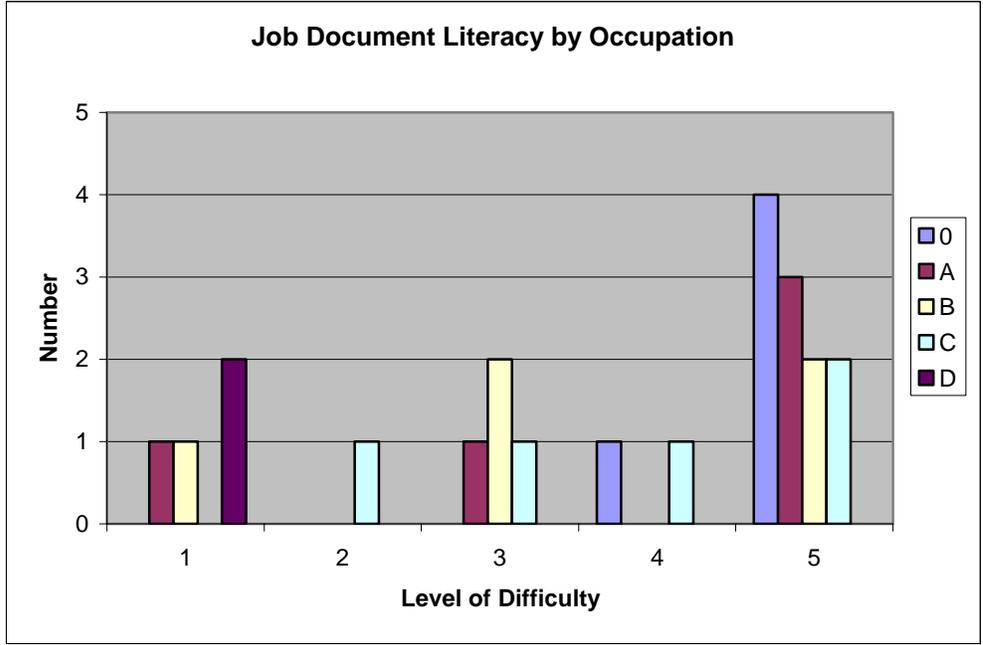
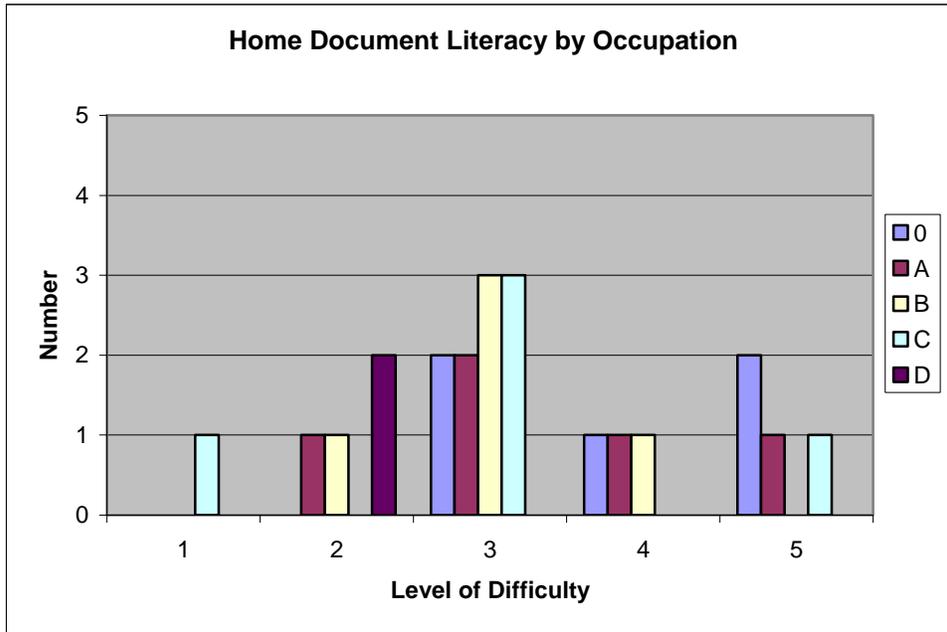


Figure 6 shows clustering of responses around document skill Level 3 for home and non-work activities. Only Skill Level D occupations indicated a requirement of document literacy proficiency at Level 2. Senior management occupations rated home document literacy proficiency at Level 3 or higher.

Figure 6. Home document literacy by occupation



Numeracy

A higher level of numeracy skills is required for occupational reasons more so than for home and non-work purposes. Figure 7 shows a wide distribution of numeracy proficiency levels for work while numeracy skills required for non-work activities cluster around Levels 2 and 3.

Figure 7. Numeracy levels

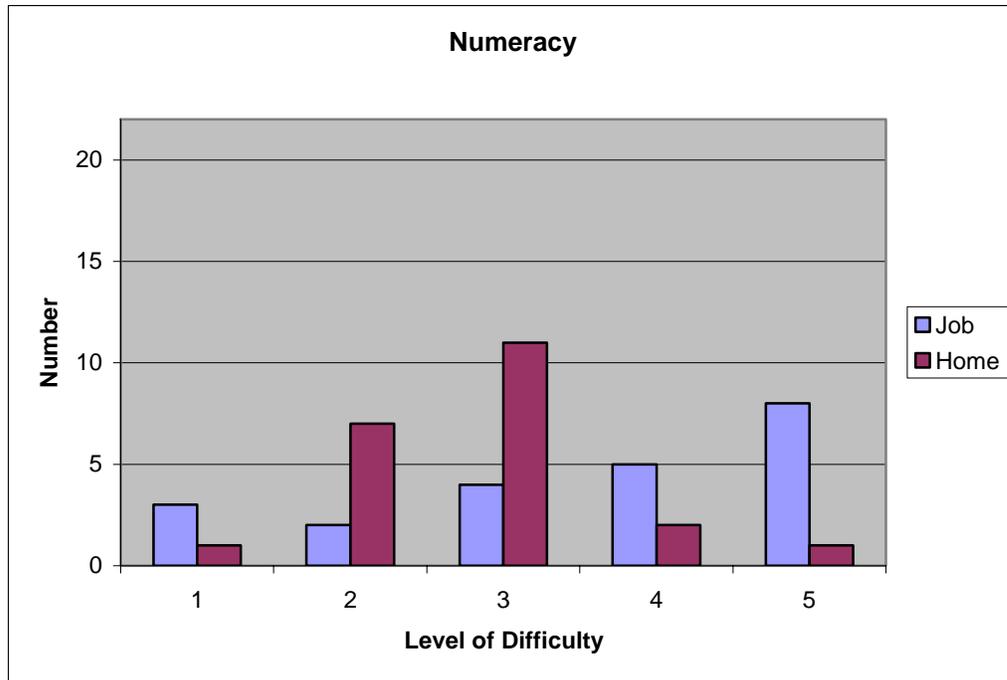
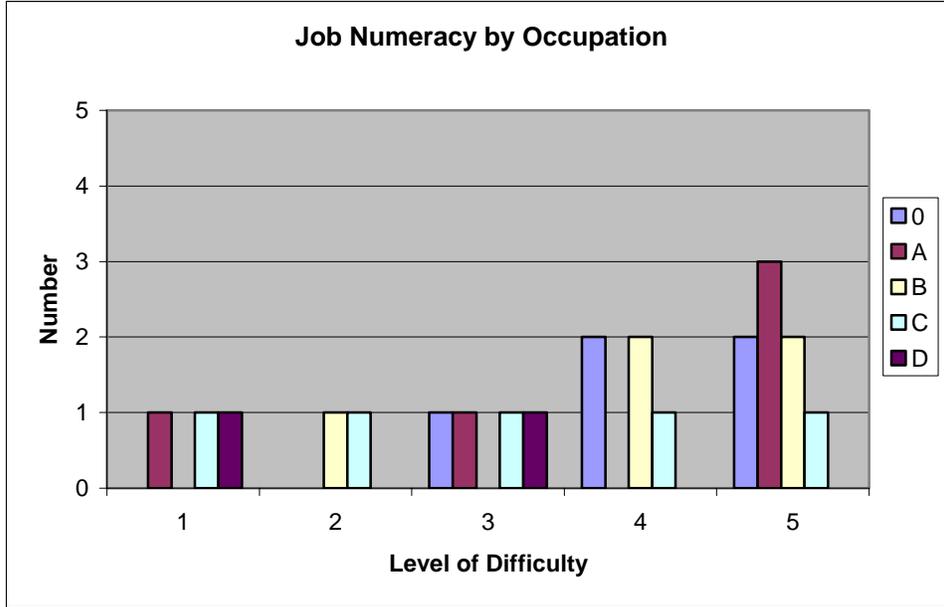


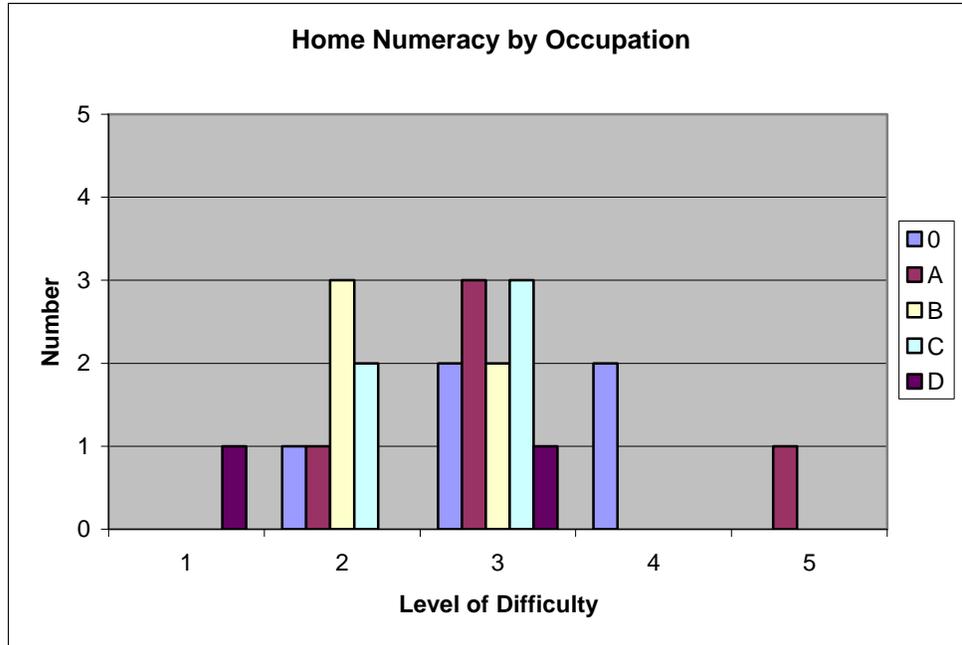
Figure 8 shows a wide distribution of numeracy proficiency skills required by occupation. All occupations except Skill Level D have representation at the highest proficiency level. Skill Level D workers indicated proficiency requirements at Levels 1 and 3.

Figure 8. Job numeracy by occupation



Like prose and document literacy, numeracy proficiency skills required at home cluster around Level 3 with almost half of responses falling in this category. Figure 9 shows 10 responses at Level 3 and seven responses at Level 2.

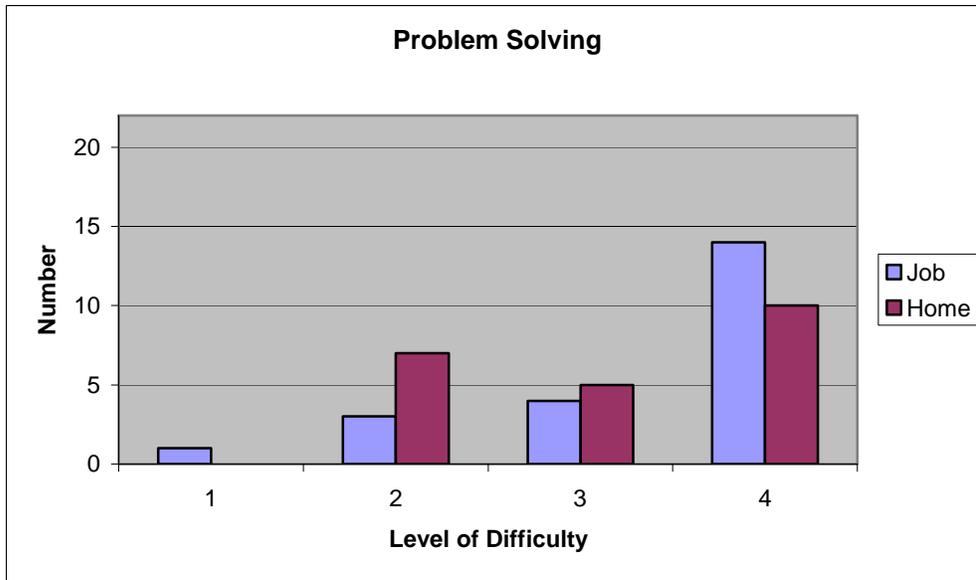
Figure 9. Home numeracy by occupation



Problem solving

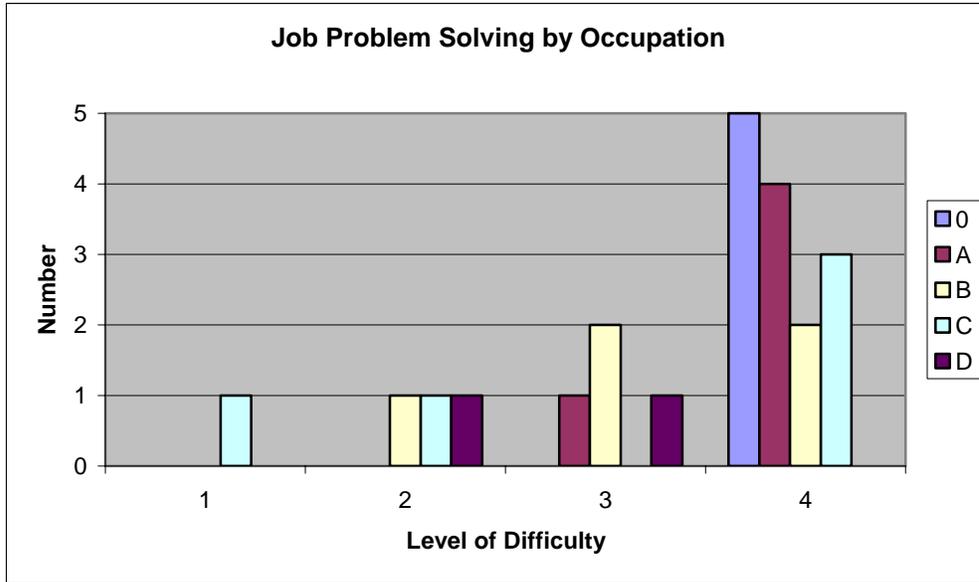
Problem solving is measured on a difficulty scale of 1 to 4. Figure 10 shows the highest level of problem solving skills is necessary for work and home. This result may be an indication of the changing nature of society and challenges people face on a day to day basis.

Figure 10. Problem solving levels



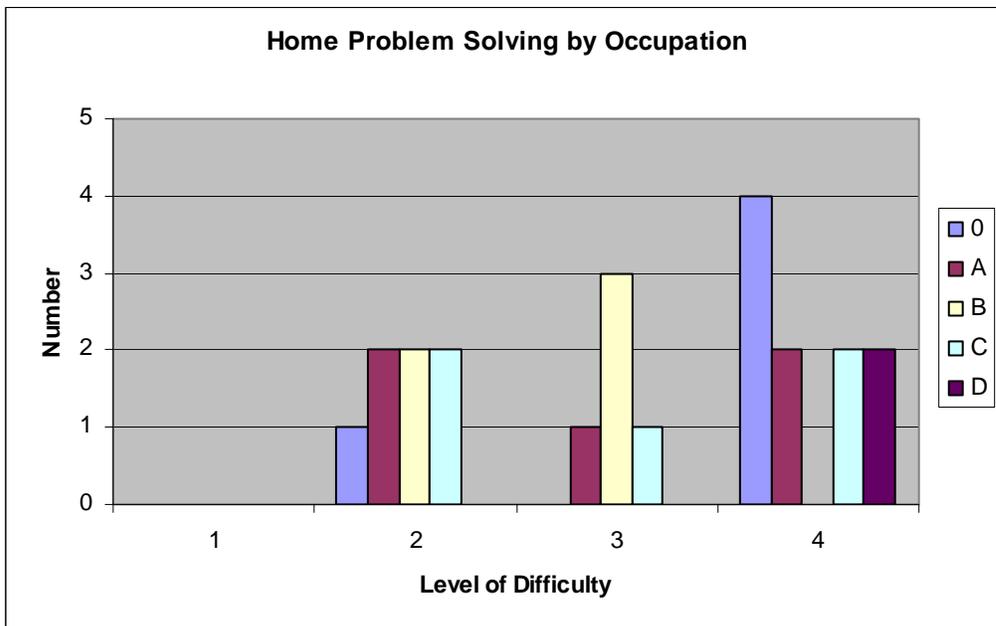
Problem solving on the job requires high skill levels as shown in Figure 11. A small number of responses fall at the lower proficiency levels; just one person indicated the lowest level of problem solving skills was required for his position.

Figure 11. Job problem solving by occupation



A high level of problem solving skills is required for non-work activities also. Figure 12 shows proficiency levels distributed in Levels 2 to 4; no one stated the minimum level of problem solving skills was adequate.

Figure 12. Home problem solving by occupation



Summary

Across literacy domains, the level of literacy required for occupations is higher than the level required for home and non-work activities.

For the occupations surveyed, the level of **prose literacy** required for work for all senior executives was Level 5 and as the education and skill level of occupations decreased, so too did the level of prose literacy required, with Skill Level D occupations saying the lowest level of literacy was required. Responses clustered around Level 4, indicating that for semi-skilled occupations, this is the minimum level of literacy required.

The level of prose literacy required for home and non-work activities clustered around Level 3 although there was representation at Levels 4 and 5.

Document literacy requires the highest level of literacy for most occupations. Although respondents in the low skilled occupations said Level 1 literacy was required, the majority of other occupations indicated document literacy at Level 5 was required.

The level of document literacy required for home and non-work activities clustered around Level 3 although some senior executives and some respondents in Skill Level A occupations said Level 4 and 5 was required for non-work activities.

There was greater distribution for the level of **numeracy** required for work, but overall, the responses clustered around Level 5 with some representation from occupation Levels 0, B and C indicating Level 4 was sufficient at work. Generally, as skill level decreased, so too did the level of numeracy required for work.

The level of numeracy required for home and non-work activities was reported mostly as Level 3 followed by Level 2. Three respondents said the numeracy they required for home activities was higher than Level 3.

The majority of respondents in occupation Levels 0, A, B and C said they required the highest level of **problem solving** skills. One person said Level 1 was adequate for work but seven respondents in low and semi skilled occupations said Level 2 or 3 was adequate.

For home activities, no respondents said the lowest level of problem solving was adequate. Ten respondents said the highest level of problem solving skills was required while seven said Level 2 was sufficient and five others said Level 3 was required.

These findings suggest that while Level 3 literacy skills may be considered necessary to function in today's knowledge based and high technology society, increasingly it seems those in the workforce require higher levels of literacy with most requiring literacy at Levels 4 and 5.

Family Literacy Experiences

For the purposes of this study, the term “family literacy” includes educational achievements, a variety of modeling behavior and social and cultural experiences.

Five interviewees grew up in predominantly English speaking areas but their parents were not fluent in English. This factor affected the parents' abilities to read and write or do other literacy activities with their children. One person said his parents are Francophone and they learned to speak English at the same time as he did so he could not rely on them to help him with homework or teach him proper grammar. Another whose first language was Portuguese was taught English by her siblings because her parents did not speak English well.

One person said her parents were “more old school and worked all the time. I probably taught my kids more about literacy than my parents taught me.” Another said, “My parents had low expectations but they were a different type of parent and weren't as involved as parents are now.”



Educational level and expectations

Interviewees were asked about their parents' academic achievement and their parents' educational achievement expectations for their children. Tables 7 and 8 show, generally, the interviewees' fathers had higher levels of educational achievement than mothers with more fathers achieving a college diploma or more advanced education.

Table 7. Level of mother's education by occupation

Occupation code	Less than high school	High school	Some college	College diploma	Some university	University degree	Post graduate
0	2		1	1			
A	1	2	1			1	
B	1	2			1	1	
C	4						1
D		1					1
Total	8	5	2	1	1	2	2

Table 8. Level of father's education by occupation

Occupation code	Less than high school	High school	Some college	College diploma	Some university	University degree	Post graduate
0	1		1	2		1	
A	2		1	1		1	
B	1			1	1	1	
C	4						1
D		1				1	
Total	8	1	2	4	1	4	1



Half of the interviewees were expected to achieve either a college diploma or university degree while the other half was expected to complete high school only. One respondent said her parents (neither of whom graduated from high school) often told their children, “Don’t be like us.” Another person said, “Education was extremely emphasized but it was not the be all and end all of life.” One person said, “If we didn’t get As, we would get in trouble.”

Table 9 shows the distribution and some of the comments interviewees provided about their parents’ expectations.

Table 9. Expectations for educational achievement

Expectations from parents	Number of responses	Occupation	Comments
Parents expected a university degree	9	0 n=3 A n=2 B n=2 D n=2	My parents expected me to get a BA degree from university. They expected me to do very well and get a university education.
Parents expected a college diploma	2	A n=2	College was very much encouraged. My parents expected college because of my high school marks.
Parents expected a high school diploma	11	0 n=2 A n=2 B n=2 C n=5	They expected high grades and high school diploma. I was expected to graduate from high school; they expected me to do well. They expected me to definitely finish high school but I’m not sure about after that.

Fourteen respondents from all occupation categories recalled their parents helping with homework. For some, help was provided only if it was requested while other parents sat with their children as they did school work. One person said, “Dad tried to help with homework but it didn’t always work. They were taught differently.” Another said it was usually her mother who helped with homework.



Modeling behavior

Modeling behavior includes a variety of activities. The modeling behaviors related to family literacy include reading all kinds of materials and books, writing, rhyming, singing, television watching habits and internet use.

Almost all interviewees recalled their parents reading newspapers regularly. Fourteen people also said they often saw their parents reading fiction and nonfiction books and four people said one or both parents read from books for church services. Mothers were recalled reading recipes in cookbooks.

One person said she did not remember her parents reading many books or magazines and “my mom refers to books as coasters.”

Specific comments are included in Table 10.

Table 10. Reading behavior

Reading behavior	Number of responses	Occupation	Comments
Parents read the newspaper	18	O n=3 A n=4 B n=5 C n=4 D n=2	Reading was a big part of our growing up, so we saw Dad reading the newspaper everyday. Mom read the newspaper every day. My father was an avid reader; he would read the newspaper every day.
Parents read fiction and nonfiction books	14	O n=3 A n=3 B n=3 C n=4 D n=1	Mom read every day, everything from novels, to the bible, magazines, newspaper and <i>National Geographic</i> . Mom read a book once a month. Dad read work-related texts. Mom read books, mostly mysteries and fiction.
Parents read the hymnal at church	4	O n=2 A n=1 B n=1	Mom read from the church book at church on Sundays. Both read the hymnal at church.



Only four people recalled their parents reading to them every night. Mothers were cited more frequently than fathers as the ones who read bedtime stories. Another 10 said they were read to occasionally by one or both parents. Two people said their parents stopped reading to them when they were able to read on their own (at about age 5 or 6). Two people said their fathers made up stories for them and one person said he listened to stories on audiocassettes sometimes instead of having a bedtime story.

One person said that reading was not emphasized as much as getting good grades in school. Therefore, there was no singing and rhyming, no help with homework, no reading to him, no cultural or social outings and no visits to the public library. He said his parents expected their children to “excel and work hard even though they did not know how to do it.” Another said, “My parents were old school and worked most of the time.”

Table 11 includes comments respondents made about being read to as a child.

Table 11. Reading to children

Reading behavior	Number of responses	Occupation	Comments
Parents read to child every night	4	B n=2 C n=1 D n=1	They read to me every night. My mom is an avid reader; she read novels to us every night, one hour per night for sure.
Parents read bedtime stories sporadically	10	O n=3 A n=2 B n=3 C n=2	Mom read to me three nights a week. They read to me sporadically; it wasn't a ritual.
Parents stopped reading to child once s/he could read	2	O n=1 B n=1	Mom read bedtime stories to me every night when I was a small child, but stopped when I could read on my own.



Interviewees were asked about library visits as a way to access reading material. Table 12 shows that eight respondents did not have access to a public library. Of nine people who had library cards when they were growing up, three visited the public library regularly and six accessed the library occasionally. Five people said they preferred to access reading material from their school library.

One person said her small town did not have a library and her parents did not read to her. Because she had no books at home, “when I wanted to read, I had to borrow books from my friends.”

Table 12. Library visitation

Library visits	Number of responses	Occupation	Comments
No public library was available	8	0 n=3 A n=2 C n=2 D n=1	My town did not have a public library. There was no library access. My school had a library but only starting when I was in Grade 6.
Had a public library card and used it regularly	3	0 n=1 C n=2	I went to the public library once a month. I went to the Book Mobile once every week or two. I had a library card as a child and went to the library every two weeks.
Had a public library card and used it infrequently	6	0 n=1 A n=2 B n=2 D n=1	I had a library card but didn't go a lot. I had a library card and went every so often with my parents.
Used school library rather than public library	5	0 n=2 A n=1 B n=1 D n=1	My town had a public library but I relied more on my school library. I relied more on the school library because it was new.



Paying bills was the most frequently cited writing behavior respondents recalled their parents modeling. Both parents were involved with paying bills and writing letters to family members while only mothers were cited as writing in journals or diaries.

Table 13. Writing behavior

Writing behavior	Number of responses	Occupation	Comments
Parents paid bills or taxes	13	O n=2 A n=4 B n=3 C n=3 D n=1	Mom paid bills and Dad did taxes. Mom ran Dad's store so I saw invoicing every night. I saw them do taxes on their own together for one week a year. I saw Dad always doing the bills.
Parents wrote letters	9	O n=3 A n=1 B n=1 C n=3 D n=1	I saw both parents writing letters to family. Mom wrote letters. I saw my parents writing letters back home to Croatia.
Mother wrote in a journal	3	A n=2 B n=1	Mom wrote in a diary every day. I saw my mom writing in a journal once a month. Mom did intense journaling; I saw her writing every day in it.

Thirteen people from all occupation categories recalled both parents singing at home. Seven people said singing and rhyming modeling by their parents included singing at church each week. Table 14 shows the distribution and sample comments.

Table 14. Singing/rhyming behavior

Singing/rhyming behavior	Number of responses	Occupation	Comments
Parents sang or rhymed	13	O n=4 A n=2 B n=3 C n=3 D n=1	Mom sang at family functions. We had a sing-along on the piano every Christmas. Four nights a week we sang grace at dinner. Both my parents loved music so there was lots of singing around the house.
Parents sang in church	7	O n= 3 A n=2 B n=1 D n=1	Both parents sang at church once a week. We would sing at church on Sunday. My mom taught Sunday school.

News programs were the most frequently watched television programs. Five people said they recalled their fathers watching sports. Family programming included Walt Disney shows and sitcoms. The distribution and sample comments are shown in Table 15.

Table 15. Television watching behavior

Television watching behavior	Number of responses	Occupation	Comments
Parents watched news regularly	10	O n=3 B n=3 C n=3 D n=1	Mom watched different things and Dad watched news and sports. I saw Mom watching news most every night. We only had three channels so we watched news every night.
Parents watched sports	5	O n=4 C n=1	I saw my parents watching TV every night. My dad watched sports. Dad watched sporting events.
Parents watched Disney	2	O n=1 D n=1	My parents watched Walt Disney on Sundays. Everyone would come to watch Wonderful World of Disney.
Parents watched variety	2	O n=1 B n=1	I saw Mom watching Ed Sullivan every night. Both watched TV every night; whatever was on, like sitcoms.



Social and cultural outings

Almost half of the respondents did not recall cultural or social outings with their families when they were growing up. Of the 12 who said they had family outings, six reported infrequent (once or twice a year) or seasonal outings (during summer vacation). One person said her family traveled extensively but did not visit museums or art galleries when they traveled.

Table 16. Cultural and social outings

Outings	Number of responses	Occupation	Comments
Did not take part in any cultural outings with parents	10	0 n=4 A n=2 B n=2 C n=2	We did not go on cultural outings. My parents ran a restaurant and store so there was no time for outings. We didn't go on cultural outings because we lived in the boonies.
Took part in social outings with parents	12	0 n=1 A n=3 B n=3 C n=3 D n=2	We went to the Muttart Conservatory once a year. We went on summer vacation trips so we would do things then like shows and factory tours. We went on outings to the beach.



Summary

Over one third of respondents said their parents were not high school graduates. A greater number of fathers had achieved a college diploma or higher education. Half of the respondents said their parents expected them to achieve a high school diploma and another nine said their parents expected a university degree. One person said, "My parents had low expectations but they were a different type of parent and weren't as involved as parents are now."

Most interviewees said they saw their parents reading the newspaper frequently and 14 said they saw their parents reading other material. Six people remembered their parents reading to them regularly and another six said their parents read to them sporadically.

Eight respondents grew up in towns that did not have a public library. Nine people said they had public library cards and used them regularly or infrequently. Five others said they accessed books from their school library.

Most respondents said they saw their parents paying bills and taxes and writing letters. Three mothers wrote in journals.

Thirteen people remembered singing and rhyming at home while they were growing up. Seven respondents said both parents or the whole family would sing at church weekly.

News programs were the most frequently watched television shows, followed by sports (mostly watched by fathers), Disney and comedy shows.

Ten respondents said they did not go on cultural and social outings while 12 others said they went on factory tours or to the beach.

These results show that even with the emphasis on the work ethic, the respondents' parents engaged in family literacy practices such as reading to their children and other positive reading, writing and numeracy modeling behavior.



Family Literacy Achievements

Four industries were represented by respondents' occupations.

Industries and occupations

Table 17 shows the distribution of industries; the specific occupations included in this study are shown below the table.

Table 17. Occupations by industry

Occupation code	Business	Natural and applied sciences	Art and culture	Trades and laborers
0	4			1
A	2	1	2	
B	3		1	1
C	4			1
D				2
Total	13	1	3	5

Management (0)

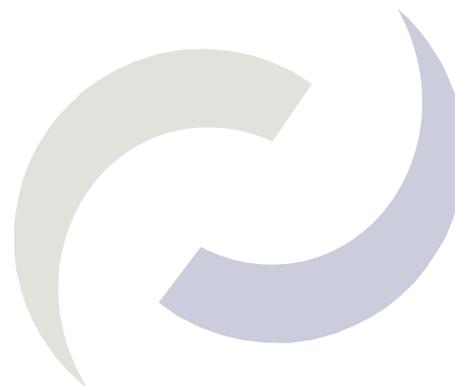
Financial manager
Information technology manager
Project manager
Senior research consultant
Material controller

University Education (A)

Investment advisor
Project accountant
Statistician
Singer/Music minister
Videographer/Web designer

College Education or Apprenticeship Training (B)

Executive assistant
Financial aid officer
Secretary
Photographer
Pipefitter



Secondary School and/or Occupation-specific Training (C)

Administrative assistant (2)
Data entry clerk
Receptionist
Material control assistant

On-the-job Training (D)

Line fitter
Laborer

Educational achievement

Sixteen respondents met their parents' expectations for educational achievement. Of these, seven interviewees exceeded their parents' expectations: parents expected their children to achieve a high school diploma but the individuals had some college, a college diploma, some university or a university degree. Five of the sixteen met their parents' expectations of a high school diploma.

Six people did not meet their parents' expectations for educational achievement. For each of these, parents expected a university degree but two achieved a high school diploma, one had completed some college and three had college diplomas.



On the job training or learning

Regardless of level of education accomplished, on the job training or learning is a requirement. All but two respondents indicated they had some type of work related training or learning courses. Two people said they received no specific training but rather learned by working. Table 18 includes some comments made by interviewees.

Table 18. On the job training or learning

On the job training or learning	Number of responses	Occupation	Comments
Received on the job training at current position	20	0 n=4 A n=5 B n=5 C n=4 D n=2	I took student finance training through the government. Training expanded on what was learned in college. There is a lot of on the job training.
Received on the job learning while working	2	0 n=1 A n=1	I am learning by working. There is no specific on the job training. My on the job training was self taught. I do lots of reading to be familiar with other areas.



Professional development

None of the respondents said they engaged in personal development initiatives; however, professional development courses or programs were cited by 15 respondents. Some employers expect their staff to participate in professional development activities as do some professional organizations. Other respondents engaged in these activities on their own initiative.

Table 19. Professional development

Professional development	Number of responses	Occupation	Comments
Took courses, seminars or workshops	15	O n=5 A n=3 B n=3 C n=3 D n=1	I take short courses online like effective business writing and writing a business plan. I do it on my own. I attended a training course for introductory management.
Self-taught development	4	O n=1 A n=2 B n=1	I learned some programs for part-time work as an illustrator and animator. I'm self taught. I do photography and some computer stuff. Professional development is part of the industry. Every three years you have to earn continuing education credits so you have to keep learning.



Summary

Over half of the respondents represented the business industry. Five respondents from all occupation levels with the exception of Skill Level A represented the Trades and Laborers industry.

Sixteen respondents met their parents' expectations for educational achievement and of these, seven exceeded parents' expectations of a high school diploma and achieved a college diploma or university degree. Six people did not meet their parents' expectations of a university degree.

On the job learning or training was required for all but two occupations. Two people said they learn by working or engage in self directed learning activities.

None of the respondents indicated they took part in personal development initiatives but 15 people said they engaged in professional development activities such as courses, seminars, webinars or workshops. Some employers and professional designations require or expect their employees or members to complete regular professional development activities. One person said, "Professional development is part of the industry."

These results suggest that employees recognize they require greater levels of skills for their occupation and work to fix the knowledge and skill gaps. In today's workforce, a high school diploma does not provide the knowledge and skills to succeed.



Family Literacy Expectations

Respondents have higher expectations for their children than their parents had of them.

Educational expectations

Eleven respondents reported their parents expected them to achieve a high school diploma; 14 people said they expect *their* children to achieve a university degree and five expected college or some type of post secondary education. Two people expected their children to achieve a high school diploma.

One of the two people who expected his children to achieve a high school diploma said if his child is not going to attend university, he “wants to see some ambition” and his child must have “a plan.” Another has a child with learning disabilities and a high school diploma would be a significant accomplishment.

The response distribution by occupation and sample comments are shown below.

Table 20. Academic achievement expectations for children

Expectations for children	Number of responses	Occupation	Comments
Parents expect children to achieve some post-secondary education	19	O n=5 A n=3 B n=4 C n=5 D n=2	I want both kids to go to university. I expect a university degree. I expect a minimum of a bachelor degree and maybe more. The number one focus for our children is education so we expect a minimum of a university degree and maybe more.
Parents expect children to achieve high school diploma.	2	A n=1 B n=1	He has to have ambition if he does not pursue post secondary education.



Fourteen respondents had school aged children, including one in preschool. All respondents indicated they helped their children with homework. Parents of children 8 years of age or younger were more likely to sit with their children and work with them while parents of children older than 8 were more likely to help with homework only if the child asked for help. One parent of a teenager said her daughter would ask her siblings for help as they had completed the same high school course one or two years previously, indicating that family literacy includes the entire family unit, not just parent-child interactions.

Table 21 provides a sample of comments.

Table 21. Help with homework

Homework	Number of responses	Occupation	Comments
Parents are more likely to help children with homework if they ask for help	14	0 n=5 A n=2 B n=3 C n=3 D n=1	We sat and did homework together. He would bring home tests and we would go over them together. I help them with homework only if they have a problem. I'll help with his homework, sometimes looking at it to make sure it's right or help if he calls for it.



Reading behavior

Positive passive modeling includes activities such as reading or writing where children witness these behaviors. Positive passive modeling takes many forms; one of the most common is reading behavior. If children see their parents reading, this is a behavior that children are more likely to emulate.

Other passive modeling behavior may be considered negative. For example, children who do not see their parents involved in writing, rhyming, singing or reading may have less positive behaviors to emulate. Similarly, having the television always on and no interaction regarding programming may represent negative passive modeling.

In our research, 17 respondents said their children see one or both parents reading books or magazines. Nine people said their children see them reading the newspaper and another seven said the children see their parents reading information on the computer.

Table 22 shows the response distribution and comments.

Table 22. Reading behavior modeled

Reading behavior	Number of responses	Occupation	Comments
Child sees one or both parents reading books or magazines	17	0 n=5 A n=3 B n=4 C n=4 D n=1	My child sees me cooking using recipes in a cookbook. He sees me reading magazines and newspapers two or three times a week.
Child witnesses one or both parents reading newspaper	9	0 n=3 A n=2 B n=2 C n=2	I'm always reading, so he would have seen me reading the newspaper everyday.
Child sees one or both parents reading information on the computer/internet	7	A n=2 B n=5	She will see me reading on the internet. He occasionally sees me reading from the internet. They just see me reading off the computer.



There is a difference between the number of respondents who were read to when they were children and the number who read to their children. Table 23 shows that four respondents recalled being read to daily and 10 more occasionally; now, 17 respondents read to their children daily and three others occasionally.

Table 23. Comparison of reading experienced and practiced

Occupation code	Parent read to them			Read to their children		
	Daily	Occasionally	Not at all	Daily	Occasionally	Not at all
0		3	2	5		
A		2	3	3	1	
B	2	3		3	2	
C	1	2	2	4		1
D	1		1	2		
Total	4	10	8	17	3	1



Most respondents said they read daily with their children. There were no occupational differences in the frequency of reading to children.

As children get older, parents have their children read to them also. Three respondents said they read to their children until the children could read by themselves, usually when the children were five or six years old. One person said she stopped reading to her child when he turned 8 years old, and two parents of teenagers stopped reading to their children when they were around 12 years of age.

All of the respondents said they have “lots of books” at home. Some children have their own bookshelves and magazine subscriptions. Parents of school age children said their children purchase books from book clubs such as Scholastic, Elf or Lucky and borrow books from the school library.

Four parents said their children were involved in mandatory reading programs at their schools which required children to read to their parents every night (Read a Book Program) or to bring books home and have parents sign a form saying the child has read the book (Home Reading Program and Balanced Literacy Program).

Table 24. Reading behavior with children

Reading behavior with children	Number of responses	Occupation	Comments
One or both parents read everyday to their child	17	0 n=5 A n=3 B n=3 C n=4 D n=2	We read at least one book a day. My son loves books. I read to him as much as I can; at least once a day. I read to them every night or they read to me every night.
Parents stopped reading to child once child could read on his/her own	3	0 n=1 B n=1 D n=1	We read to them every night until they could read by themselves (when they were about five or six).
There are many books and/or magazines for child to read at home	22	0 n=5 A n=5 B n=5 C n=5 D n=2	The kids have their own bookshelves packed with books and one child has his own magazine subscription. There are over 900 books in our library at home.

Not all comments were positive. One person said she reads to her son once or twice a week and, despite a large number of books at home, “he hates reading.” Another person said her 14 year old daughter “used to like books”, even attending a summer reading program when she was in Grade 2 or 3, but now she does not enjoy reading and her mother did not know “when she stopped liking books.” Another person with older teenagers said when her children were younger, they used to go to the library “all the time”, but now neither of them likes to read.

One person with two boys aged 8 and 10 said the children are required to read a minimum of 20 minutes each day for school. It is a “forced activity and neither likes to read.” She echoed another respondent who said, “The kids are really into sports and they have lots of time for that.”



Other modeling behavior

Television watching

Watching television programs can be either active or passive modeling. Eleven respondents said one or both parents watch television regularly. One person said, "The TV is always on when we are at home." This activity is passive modeling.

Six parents engage in active modeling such as watching preschool shows, youth and adult cartoons, movies or other programs with their children. Watching television programs with children provides interaction such as talking and discussing what they are watching. Five respondents said their children do not see them watching television because they watch programs only after the children have gone to bed.

One parent said she did not watch television and one parent said he watches five or six hours of television daily. The other 20 respondents watched up to five hours of television per day with an average of two hours. Table 25 shows the response distribution for modeling and amount of time spent watching television.

Table 25. Parents' television watching behavior

Television watching behavior	Number of responses	Occupation	Comments
Parents watch television	11	0 n=2 A n=5 B n=1 C n=3	My husband watches TV every night. The TV is always on if we're home at night.
Parents watch television with their children	6	0 n=1 B n=2 C n=2 D n=1	We watch cartoons together occasionally. We watch movies together on the weekend.
Children do not see parents watching television	5	0 n=2 B n=2 D n=1	I only watch TV after the children are in bed. They don't see us watching TV because we watch after they are in bed.
Parents do not watch television	1	0 n=1	I don't watch TV.
Parents watch between 0.1 and 5 hours of television per day	20	0 n=4 A n=5 B n=5 C n=4 D n=2	I watch two hours a day. We watch half an hour a day. I watch about two hours of TV a day.
Parents watch more than 5 hours of television per day	1	C n=1	I watch 5 to 6 hours of TV a day. Mostly drama but also reality TV and documentaries.

Unlike the respondents' parents who mainly watched news and sports on television, the respondents reported watching mainly dramas, documentaries and reality television shows. One person said he watched preschool programming with his child. As Table 26 shows, respondents from each occupation category said they watched dramas but only respondents in the senior executive and university degree occupations said they regularly watched news.

Table 26. Type of programming parents watch

Type of program	Number of responses	Occupation	Comment
Parents watch mainly drama	11	0 n=1 A n=2 B n=3 C n=3 D n=2	We watch roughly five hours per week, mostly drama. We watch about two hours per day. We like dramas.
Parents watch documentaries	5	0 n=2 A n=1 B n=1 C n=1	I watch for two hours a week; Charlie Rose and A&E. I usually watch documentaries.
Parents watch mainly reality television	5	0 n=1 A n=3 C n=1	By and large I watch reality TV. I also watch reality television.
Parents watch mainly news	3	0 n=1 A n=2	I watch for about one and a half hours a day, mostly for the news.
Parents watch mainly sitcoms	2	B n=1 C n=1	Usually it's sitcoms.
Parents watch preschool programming	1	B n=1	I watch mostly preschool programming because of my son.



Only one respondent said her child does not watch television. Twenty parents said their children watched up to five hours of television per day. The maximum amount of television viewing was five hours and the average was two hours per day. Table 27 shows the response distribution by occupation and sample comments.

Table 27. Children's television watching behavior

Television watching behavior (children)	Number of responses	Occupation	Comments
Children do not watch television	1	C n=1	My daughter doesn't watch TV.
Children watch between 0.1 and 5 hours of television per day	20	0 n=5 A n=4 B n=5 C n=4 D n=2	He watches one and a half hours a day. My kids usually watch Family Channel two hours a day. They watch approximately four hours a day. They'll watch three hours a day on the weekends.



Seven parents reported their children watch mainly preschool programs on television. Five others said their children usually watch youth cartoons. All occupations are represented in this category.

Two children watched mainly sitcoms, two others watched adult cartoons and one watched reality shows on the weekend.

Children under the age of two primarily watch preschool programming and older teenagers watch mainly adult cartoons. The parent whose children watch reality programming on weekends has two sons ages 8 and 10.

Table 28 shows the response distribution by occupation code and type of programming children usually watch.

Table 28. Type of programming children watch

Type of program	Number of responses	Occupation	Comments
Children watch preschool programs	7	A n=3 B n=2 C n=1 D n=1	She watches five to six hours of preschool programming a week.
Children watch youth cartoons	5	0 n=1 A n=1 B n=1 C n=1 D n=1	Mostly he watches kids' cartoons. They watch youth cartoons most of the time.
Children watch sitcoms	2	A n=1 B n=1	My daughter will watch for about an hour a day. Usually she watches sitcoms.
Children watch adult cartoons	2	0 n=2	They watch for three hours a week. It's usually adult cartoons.
Children watch reality television	2	0 n=2	They don't watch TV during the week but they'll watch reality shows for four to six hours on the weekend.



Computer/Internet use

Nine of the 20 people who had internet access said they use it mostly for research purposes. Six people said they use it for email and chat groups and five others conducted their banking online. Table 29 shows the response distribution by occupation.

Table 29. Parents' internet behavior

Internet behavior	Number of responses	Occupation	Comments
Parents have no internet access or do not use	3	A n=2 D n=1	I don't use the internet at home although I do use it at work.
Parents spend between 0.1 and 5 hours per day on internet	19	O n=5 A n=3 B n=5 C n=5 D n=1	I go on the internet for about three hours a day. I'm on the internet for about a half hour a day.
Parents use internet for product research	9	O n=4 A n=2 B n=2 C n=1	I'm usually on the internet for researching financial and business information. I usually use it for research for whatever I need.
Parents use internet for email/chat groups	6	O n=1 A n=1 B n=3 C n=1	I talk to my son on MSN one hour a day. He lives in Vancouver. Mostly I email. I use the internet for about half an hour a day usually to email and chat.
Parents use internet for banking	5	O n=1 A n=1 B n=2 C n=1	I do my banking on the internet.
Parents use internet for recreational games	2	C n=1 D n=1	I'll use it for about 20 minutes a day, mostly for research and games. Usually I play games.
Parents use internet for shopping	1	O n=1	I'm on for 10 to 15 minutes a day. Mostly for product research but I also do some shopping.

Ten respondents said their children did not have access to or did not use the internet. The other 12 said their children used the internet for about one to one and half hours daily. One person said her older teenage son used the internet for four or five hours a day.

The most common purpose for children to access the internet was for email and chat groups. Five others played recreational games and one played educational games on the internet. One person visited children's educational sites with his young daughter.

Table 30 shows the response distribution and comments.

Table 30. Children's internet behavior

Internet behavior (children)	Number of responses	Occupation	Comments
Children have no internet access or do not use	10	A n=4 B n=2 C n=3 D n=1	My kids don't go on the internet. He doesn't have access to the internet.
Children spend between 0.1 and 5 hours per day on internet	12	0 n=5 A n=1 B n=3 C n=2 D n=1	My child uses it for about half an hour per day. My daughter goes on the internet for two hours a day.
Children use internet for email/chat groups	7	0 n=3 A n=1 B n=1 C n=1 D n=1	Mostly she uses the internet to chat and email. My daughter usually emails and chats. Ordinarily she'll chat or email.
Children use internet for recreational games	5	0 n=4 C n=1	He plays recreational games for about three hours a week.
Children use internet for educational games	1	B n=1	He uses the internet for games. About half an hour a week he'll play educational games.
Children use internet for preschool educational websites	1	B n=1	We check out websites for Sesame Street and Dora together.

Writing

Writing is another type of passive modeling. Sixteen respondents said their children see them engaged in various writing activities. These included paying bills and organizing finances and writing for work related purposes.

Five respondents said their children do not see them engaged in writing activities.

Table 31 shows the distribution of responses and sample comments.

Table 31. Writing behavior

Writing behavior	Number of responses	Occupation	Comments
Child witnesses one or both parents paying bills, taxes or other finances	11	O n=2 A n=2 B n=3 C n=3 D n=1	She sees me doing bills every Saturday. He sees me doing finances at home. She doesn't see any writing except for when I pay bills.
Child sees one or both parents doing work at home that involves writing	5	O n=2 B n=2 C n=1	When I teach every couple of months, he will see me scoring students' work. He sees work at home from both parents.
Child sees no writing from either parent	5	A n=1 B n=1 C n=2 D n=1	He doesn't see any writing. They don't see us writing anything.



Singing and rhyming

Singing and rhyming is another family literacy activity that parents model. All but one respondent said they were engaged in passive modeling, such as singing at home or while driving, or active modeling such as singing to or with their children. A few parents indicated their children were musical and were enrolled in music lessons or spent a lot of time listening to music. One person said her 14 year old daughter “writes songs all the time.” Another said she is in a choir so she practices singing at home but tries not to sing around her teenage daughter “because she doesn’t like it.”

Table 32 includes sample comments about singing and rhyming modeling behavior.

Table 32. Singing and rhyming behavior

Singing and rhyming behavior	Number of responses	Occupation	Comments
Parents sing and/or rhyme with or to their children	21	0 n=5 A n=5 B n=5 C n=5 D n=1	We sing and play the guitar together once every two weeks. He hears me singing a lot and we sing together when I’m driving.



Library use

Six respondents said they had public library cards and take their children to the library occasionally or regularly. One person with 8 and 10 year old children said they go to the library every second week and “take out 10 to 15 books because reading is very important in our family.” School aged children are more likely to use the public library in the summer or when school is closed.

Eight respondents said their children had a public library card but either do not use it or rarely use it.

Two parents of teenagers said their children were avid readers when they were younger and visited the library summer reading programs but now dislike reading. They would, however, go to Chapters occasionally to read.

One parent said her teenager does not enjoy reading books, but she “likes teen magazines so I’m always buying her magazines.”

Of the 14 respondents with school aged children, 11 said their children brought books home from school. These books were usually accessed from the school library rather than distributed by the teacher. This applied to all levels of education.

Eleven respondents reported having many children’s books at home. Some children have their own bookshelves with up to 300 books.



Table 33 shows the response distribution for library card use and other methods of accessing reading material.

Table 33. Access to reading material

Library visits	Number of responses	Occupation	Comments
Child has public library card or s/he goes to the public library with parents	6	0 n=1 A n=2 C n=2 D n=1	We go to the library every weekend. There's usually something on hold for my older daughter.
Child has a public library card but rarely uses it	8	0 n=3 A n=1 B n=3 C n=1	My kids still have library cards but they don't go as much as they used to.
Child uses school library	11	0 n=3 A n=1 B n=3 C n=3 D n=1	He brings books every week from the school library. My daughter brings home books from the school library if she has to.
Child obtains books through other methods than the public or school library	7	0 n=4 A n=1 B n=1 C n=1	We go to Chapters a lot. We buy a book or two once a month from Scholastic book club.



Social and cultural outings

Most respondents said they had taken their children on social or cultural outings. These included visits to the TELUS World of Science¹, art gallery, museum, zoo, Fort Edmonton, Klondike Days, Taste of Edmonton, the Ukrainian Cultural Centre and other area attractions.

One person said her family would visit the museum about once a month but stopped when her children (aged 11 and 15) got older because “they found it boring.” A mother of a 14 year old said they used to go frequently to the zoo, museum and science centre but “she’s not into that any more” and prefers to go to movies.

Table 34. Cultural and social outings

Outings	Number of responses	Occupation	Comments
Parents take their child on cultural and educational outings	20	0 n=5 A n=3 B n=5 C n=5 D n=2	We go to the Space and Science Centre once a year but not to the art gallery or museum. We went to the Edmonton Folk Festival and go to the Calgary Zoo a few times a year. We go to the Heritage Festival every year.
Parents engage in social outings with their children	4	0 n=2 A n=1 B n=1	My daughter goes to Brownies once a week and both kids take karate lessons twice a week. My daughter and I go to every Oilers game.

¹ For consistency, we use the TELUS World of Science to refer to what respondents called the Space and Science Centre, science centre and Odysium.

Summary

Respondents have higher expectations for their children than their parents had of them. Most respondents expected their children to achieve a college diploma or university degree.

Another difference is reading behavior. Four respondents recalled being read to regularly when they were growing up; 17 respondents said they read to their children every day. Everyone in this study said they have a large number of books at home.

Television watching is a common activity at home and while 11 parents watched TV regularly and six parents watched programs with their children, five parents said they only watch television after their children have gone to bed. Most frequently watched programs were drama, documentaries and reality television shows.

The mother of an 11 month old girl said her child does not watch TV. Twenty children watch up to five hours of television per day with preschool programs and youth cartoons being the programs most frequently watched.

Of the 19 people who access the internet at home, nine respondents use it mostly for product research and six use it for email and chat groups.

Twelve respondents said their children access the internet mostly for email and chat groups and to play recreational games.

Other types of modeling included writing (16 respondents) and singing and rhyming activities (21 respondents).

Six people said they and/or their children access material from the public library and eight others had library cards but did not use it or rarely used it. Eleven of 14 parents with school aged children said their children access material from their school library.

Parents today are more likely to take their children on social and cultural outings than they experienced when they were growing up. Respondents mentioned visiting the TELUS World of Science, art gallery, museum, zoo, Ukrainian Cultural Village and other festivals in Edmonton.



Discussion

The discussion that follows summarizes the trends in family literacy experiences, achievements and expectations of our respondents. The goal of the research was to understand the human stories behind statistical data generated by the IALSS.

Trends from experiences to expectations

Educational attainment

The IALSS research shows there is a relationship between parental education attainment and literacy levels. In Canada, nine percent of the variance in prose literacy scores of youth can be attributed to parental education attainment (Statistics Canada, 2005a). For example, the 2003 research shows “youth whose parents have not completed a high school education have the lowest prose literacy scores” (Statistics Canada, 2005b:43). Furthermore, other research has shown that families who support literacy build foundations for lifelong learning (Cerny, 2000; Richgels and Wold, 1998).

Parents tended to want their children to achieve a better education than they had achieved. Eight mothers and/or fathers of respondents did not graduate from high school and this may account for the expectations by 11 parents that their children achieve a high school diploma and by nine others that their children attain a university degree. Most of the respondents met or exceeded their parents' expectations.

Respondents have high expectations for their children regardless of their own occupations or literacy level. Nineteen wanted their children to achieve some form of post secondary education with 14 respondents stating expectations for their children to attain a university degree.

Modeling behavior

The Canadian Education Association (2004) reported in a policy brief the quality of early childhood experiences is one factor that affects literacy levels. Engaging in literacy activities at home is one component of the quality of childhood experiences that has a substantial effect on literacy levels (Statistics Canada, 2005a). This is not a new phenomenon—Chall and Snow (1982), Handel and Goldsmith (1988), Foertsch (1992), Henderson and Berla (1994) and many others have reported the link between home environment and child's reading ability, self esteem, social skills, IQ level and literacy achievements.

Modeling behavior is classified as passive or active. Passive modeling includes such activities as reading or writing where children witness these activities. Active positive modeling includes singing with children, reading with children and exposing children to books, shopping lists and cards (Health Canada, 2005).

The importance of reading to language and literacy development cannot be overstated. The Canadian Education Association (2005:3) reported “adults who read at work, at home and in the community continue to improve their literacy skills and demonstrate to children the value of reading.” A recent Canadian study emphasized the value of reading books as it helps to develop vocabulary and awareness of print (Senechal, 2005). Other research identified phonological awareness as a key component in children’s success in learning to read (Burgess, 1999); parents can improve this ability through reading rhymes and poetry (Senechal & LeFevre, 2002).

Rootman and his colleague (2005:S68) found “it is clear that early childhood development can make a significant contribution to the development of literacy.” Other effects of family literacy practices include an increased perception of the value of education (Bandura et al., 1996; Cooter, Marrin and Mills-House, 1999), families develop a more supportive home environment (Brooks et al., 1997) and families read more and engage in more literacy behaviors at home (Fox and Wright, 1997; Rubin, 2004).

Our respondents reported they often saw their parents reading the newspaper and other books and when their parents watched television, it was usually news programs. However, only four respondents recalled their parents reading to them or with them regularly.

Parents today are engaged in both positive and negative passive and active modeling. For example, 11 respondents said they watch television regularly or let their children watch hours of children’s cartoons. This behavior may be regarded as negative passive modeling. Respondents engaged in positive active modeling by reading with their children and singing and rhyming with them.

Our respondents provided examples of both negative and positive actions parents are taking today. The lack of consistency in modeling behavior may indicate a lack of awareness of the impact of modeling on children. Children emulate what they experience. Six respondents said their children did not see them engage in writing activities—this is modeling behavior their children will copy. Other negative modeling was shown by the person who did not try to instill interest in books in her 11 month old because her daughter did not show interest when she was read to previously. Another parent said her son *hates* reading, despite the large number of books at home. One parent said her children’s school requires students read a minimum of 20 minutes a day and because it is a “forced activity”, neither child enjoys reading.

Rubin (2004:285) stated children with “positive self concepts view reading as enjoyable, motivating and relevant and are more likely to want to read more. On the contrary, those with negative self concepts see reading as stressful, discouraging, meaningless and anxiety-laden” leading to avoidance or minimally to a reduction in reading activities.

The Centre for Family Literacy (2004) reported “rhymes, chants, songs and storytelling create a rich environment for language development” regardless of the language used because “children learn through rhythm, rhyme and repetition.” Musical activities, including singing, were practiced by almost all parents we interviewed. For example, activities included singing and playing a musical instrument and singing together at home, at church or in the car. A parent of a 14 year old says of her daughter, “She writes songs all the time”; a parent of another 14 year old said playing guitar “is his passion.” Two parents said their children have weekly music lessons—two children 8 and 10 have weekly piano lessons and two children 7 and 14 have weekly guitar lessons. One parent said “music is a very integral part of our lives.”

It may be that parents do not have the knowledge and tools to help their children maximize their potential, or perhaps parents are unaware of the effect their modeling behavior has on their children. For example, Grieve (2003:42) suggests parents “look at our attitudes towards ourselves and towards learning. We can talk about the negative messages we often give ourselves, and how we sometimes sabotage our own efforts. We can explore how to give ourselves more positive messages. Similarly, we can look at how our actions either support learning or create further barriers to learning.” This may explain the wide range of passive and active modeling behavior respondents reported.

Social and cultural excursions

Social and cultural excursions are informal learning activities. The IALSS research collected information on activities such as visits to trade fairs, guided tours at museums, art galleries or other locations and learning by watching and taking advice from others. The IALSS found that approximately 72 percent of adults in the Prairie provinces engaged in passive modes of informal learning (Statistics Canada, 2005b). Passive informal learning includes activities such as using videos to learn, reading manuals and learning by trying new things.

The respondents in our study were involved in both active and passive informal learning modes. Almost all respondents said they had taken their children on cultural or educational outings such as going to the TELUS World of Science, art galleries, Royal Alberta Museum, Fort Edmonton Park, Valley Zoo, Citadel Theatre and Ukrainian Cultural Centre. Parents also took their children to festivals such as the Fringe Festival, Heritage Festival, Edmonton Folk Fest, Klondike Days and Taste of Edmonton. While IALSS referred to informal learning of adults, the effects of these activities also pertain to children as they are introduced to different forms of learning. Festivals and other attractions provide a fun way to learn.

Current status of family literacy in the workplace

The relationship between literacy proficiency and employability, wages, and job satisfaction has been proven. For example, Van Horn and colleagues (2002) reported a benefit of family literacy programs is enhanced employment status and/or level of job satisfaction. Green and Riddell (2001) showed an increase of literacy scores of ten percentiles results in a three percent increase in wages. The IALSS showed a clear relationship between prose literacy and earnings: the higher the level of prose literacy proficiency, the higher the earnings (Statistics Canada, 2005b).

Workplace literacy includes the three “Rs” as well as skills in critical thinking, teamwork, communication, problem solving and learning to learn (Folinsbee, 2001). Grieve (2003:20) reported “learning comes from meaningful activity with others” and stated, “The knowledge gained on the job by working with tools, using common processes, learning from other workers’ practices and solving problems in a particular context is different from official knowledge about the job, according to trade textbooks or official workplace documents.”

Blunt (2001) and Wiebe (2001) argued the different interests of employers in terms of productivity and customer service goals and interests of employees in terms of enhanced workplace environments make it difficult to develop a balanced literacy-workforce relationship. The Alberta Food Producers Association provides an example of how to integrate literacy in the workplace. The Association developed an approach to integrating literacy into Hazard Analysis Critical Control Point training and procedures which assure food is handled properly. As a result of this project, the Association was able to introduce a learning culture to its industry and was able to secure a \$3 million training fund (Ontario Literacy Coalition, 2003).

Safety in the workplace is an issue in which companies are investing vast resources. As Christie (2006) said, “If a worker cannot read a safety sign, an operator’s manual or the terms of a safe work permit or a work order, he or she will not be safe in the average workplace.” Rootman and Ronson (2005) noted examples of the importance of literacy in workplace safety. They cited a study by the Canadian Business Task Force that estimated \$1.6 billion of the \$4 billion lost by businesses due to literacy problems were attributable to workplace accidents. They also noted the Workplace Hazardous Materials Information System has text written at college level. Health Canada (2003) research revealed occupational injuries and awareness of dangers in the workplace are associated with lower literacy proficiency.

Our research showed a trend, also evidenced in the IALSS research, in which employees in all levels of occupations are required to have higher levels of literacy across all domains. Statistics Canada (2005b:88) concluded “the demand for high literacy and numeracy proficiency is likely to increase further as Canada moves more and more towards a knowledge-based economy. ... Continuous learning assists in maintaining competencies and acquiring new ones.” This trend emphasizes the importance of investing in literacy initiatives that build and maintain proficiency levels to keep our workforce competent and competitive.

In our research, people realized the need to pursue additional education and professional development to be successful in today's knowledge-based economy. Fourteen people took courses online or attended seminars, workshops and webinars or attended training and learning opportunities provided by their employer. Others engaged in self-taught learning to keep current with new developments and trends in their industry.

Current status of the next generation

The respondents in this research represented a wide spectrum of family literacy attitudes. We uncovered some examples of negative passive modeling behavior. For example, there are parents who turn on the television as soon as they get home. More than one person said their children watch television and videos (usually children's cartoons) for three or four hours a day.

However, we also had many positive comments:

- "My philosophy is that money spent on books is never wasted."
- "Reading is really emphasized in our household."
- "We encourage a lot of reading because we know it enhances other subjects as well."
- "Our kids each have their own bookshelves packed with books."
- "We go to the library every second week and the kids take out 10 or 15 books."
- "My daughter writes a lot of songs."
- "My son's passion is his guitar."
- "About twice a month we go on big family outings. We take our two year old to the museum, art gallery and TELUS World of Science."
- "We try to do social things with the children. We want our kids to do well in school but also have fun."

Rubin (2004:289) stated "rather than simply transmitting literacy to their children, the parent's task is to model literacy as a useful practice for solving problems and to establish social literacy practices in which children can participate as a critical part of their lives. Thus, literacy involves integrating reading, writing, listening and speaking to be able to use language to think critically." We have seen that parents today have some understanding of this requirement. They are much different from their parents and as one parent said, "My parents were a different type of parent and weren't as involved as parents are now." One respondent said, "My parent were old school and worked all the time."

The past generation was focused on the work ethic and literacy was not emphasized. Parents today realize that their children's success means more than just being able to read and that learning begins at an early age. Time will tell if their practices result in greater literacy. The research suggests this should happen.

Attitudes such as those reflected in the comments above are positive indicators that parents are increasingly aware that positive literacy behaviors can ensure literacy skills in the next generation. This may result in more parents who are interested and able to support literacy in their families and an increase in the number of qualified workers in Alberta's next generation.



Future Directions

Family literacy benefits extend beyond children, their families and the workplace—society also benefits from family literacy initiatives. As Thorn (2001) stated, as a social issue, literacy covers all areas of a person's life including activities at home, at work and in the community. Padak and Rasinski (2003:4) reported "parents persist in family literacy programs, and persistence leads to literacy achievement, which in turn can influence broader economic and social issues." For example, Sticht (2001) said increased family literacy can have positive outcomes for nutrition and health, school achievement, teen parenting, employability, social involvement and home and community safety.

Future research

This research can provide a foundation for future research in two key areas. First, this study can guide future research in family literacy in the workplace. Research in this area is both critical and timely given the current labor market characterized by the need for qualified workers. For example, research can determine whether the labor shortage has had an impact on the literacy proficiency of the workforce by industry and occupation and if past literacy experiences have other effects such as causing workers' difficulty succeeding or keeping their jobs.

Another workplace related study can build on the current research and fill the gap of information about the literacy proficiency in Alberta's workforce, professional development activities and programs for literacy and education in the workplace. This research would be important as the Conference Board of Canada (2003:i) reported "most employers do not help their workers enhance their literacy skills. Some employers do not understand the benefits involved. Others lack knowledge of the many effective techniques for improving employee literacy skills."

There is little research on family literacy workplace programming. The need and willingness to implement programs and evaluations of the program outcomes is also required.

The second key area for future research involves an evaluation of family literacy programs. Longitudinal research can track family literacy program participants to identify continued involvement in literacy learning and the long term effects of programs on Alberta's next generation. This type of research would gather quantitative and qualitative data from parents and children regarding parental attitudes about literacy, communication with children and participation in family literacy programs. Cohorts could be tracked according to the first program attended; children whose first family literacy program is Books for Babies can be compared with other groups of children who attend this program later and with groups of children whose first family literacy program is B.O.O.K.S. This research would strengthen the importance of families in literacy activities.

Another project would involve an evaluation of the Literacy Classroom on Wheels (C.O.W. Bus) program. The project would involve a formative evaluation of the reach, quality and utilization of the program and a summative evaluation of the outcomes of the program. Positive results can be used to support requests for program funding.

There is a greater need for research on the effects of family interaction and modeling on family literacy behaviors and skills.

The lack of research in these two areas—family literacy in the workplace and family literacy program effectiveness—provides many opportunities to explore family literacy issues in Alberta and effective methods to help Alberta's next generation maximize its potential.



Call to action

This research showed an increase in the emphasis on family literacy, but generally there continues to be a lack of awareness of the importance of family literacy behaviors and tools. Future research can help to raise awareness but this is only one step. Everyone has responsibility to practice family literacy.

- Read to the children in your life—not just your own children, but grandchildren, nieces, nephews and friends. Tell stories about the “olden days” and what it was like when you were a child. Children are always fascinated that their parents were once children too!
- Involve children in the literacy events of the family, activities as common as writing birthday cards, writing out a grocery list, checking prices in a grocery flyer or sorting the mail.
- Be a literacy role model. If children do not learn the value of reading from their role models, they will not learn this from anyone else.
- Spread awareness about the literacy challenge and talk about solutions. Explore family literacy programs in Edmonton and the surrounding area.
- Take your children and their friends to the Royal Alberta Museum, Edmonton Art Gallery, TELUS World of Science or the Valley Zoo. Talk about what they see and what they think.
- Take children to plays and festivals—watch their smiles and enjoy their laughter!
- Be a family literacy champion. Support efforts to make family literacy a mainstream issue. Literacy and learning needs to have an awareness profile similar to that of seat belt use and anti-drinking and driving.

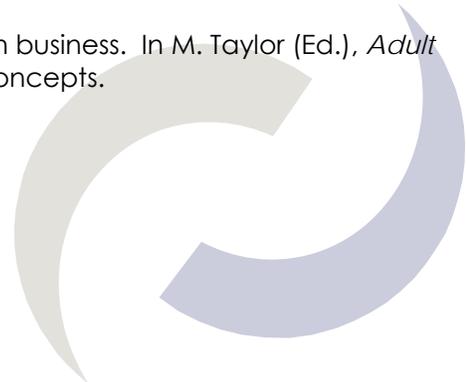
- *Books are so much more than coasters...read with someone today!*



References

- Bandura, A., Barbaranelli, C., Caprara, G. and Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development*, 67, 1206-1222.
- Belfiore, M. (2002). *Good practice in use: Guidelines for good practice in workplace education*. Toronto: Ontario Literacy Coalition.
- Blunt, A. (2001). Workplace literacy: The contested terrains of policy and practice. In M. Taylor (Ed.), *Adult Literacy Now* (pp. 89-108). Toronto: Culture Concepts.
- Burgess, S. (1999). The influence of speech perception, oral language ability, the home literacy environment and prereading knowledge on the growth of phonological sensitivity: A 1-year longitudinal study. *Reading Research Quarterly*, 34, 400-402.
- Campbell, A. (2003). Strength from within: Overcoming the barriers to workplace literacy development. *Education and Learning Reports*. Canada: The Conference Board of Canada.
- Canadian Education Association. (2004). *Policy brief: The promise and problem of literacy for Canada: An agenda for action*. Toronto: Author.
- Centre for Family Literacy. (2004). Tip sheets. Edmonton: Author.
- Cerny, R. (2000). Family literacy programs: Joint projects of the programs and services departments. *Journal of Youth Services in Libraries*, 13(2), 27-29.
- Chall, J. and Snow, C. (1982). *Families and literacy: The contributions of out-of-school experiences to children's acquisition of literacy*. (ERIC Document No. ED 234 345).
- Christie, B. (2006). Safety, literacy and the internet. *Occupational Health and Safety*, 22.
- Cooter, R., Marrin, P. and Mills-House, E. (1999). Family and community involvement: The bedrock of reading success. *The Reading Teacher*, 52, 891-896.
- Foertsch, M. (1992). *Reading in and out of school: Factors influencing the literacy achievement of American students in grades 4, 8 and 2 in 1988 and 1990*. (ERIC Document No. ED 341 976).
- Folinsbee, S. (2001). *Literacy and the Canadian Workforce*. Briefing paper prepared for the Movement for Canadian Literacy.
- Fox, B. and Wright, M. (1997). Connecting school and home literacy experiences through cross-age reading. *The Reading Teacher*, 50, 396-403.
- Green, D. and Riddell, W. (2001). *Literacy, numeracy and labour market outcomes in Canada*. Ottawa: Statistics Canada and Human Resources Development Canada.
- Grieve, K. (2003). *Supporting learning, supporting change: A research project on self-management and self-direction*. Toronto: Ontario Literacy Coalition.
- Handel, R. and Goldsmith, E. (1988). Intergenerational literacy: A community college program. *Journal of Reading*, 32, 250-256.
- Health Canada. (2005). Wise words from Rotterdam. *Bulletin of the Centre of Excellence for Early Childhood Development*, 4(1), 1-5.

- Health Canada. (2003). *How does literacy affect the health of Canadians?* Accessed from <http://www.phac-aspc.gc.ca/ph-sp/phdd/literacy/literacy.html>
- Henderson, A. and Berla, N. (1994). *A new generation of evidence: The family is critical to student achievement*. Washington National Committee for Citizens in Education.
- Ontario Literacy Coalition. (2003). *Workplace literacy: National and international perspectives on research and practice*. Toronto: Author.
- Padak, N. and Rasinski, T. (2003). *Family literacy programs: Who benefits?* Ohio: Ohio Literacy Resource Centre, Kent State University.
- Richgels, D. and Wold, L. (1998). Literacy on the road: Backpacking partnerships between school and home. *The Reading Teacher*, 52, 18-29.
- Rootman, I. and Ronson, B. (2005). Literacy and health research in Canada: Where have we been and where should we go? *Canadian Journal of Public Health*, 96(2), S62-S77.
- Rubin, R. (2004). *Voices from the Heart: A case study of family literacy practices in one low income community in New Brunswick*. Ph.D. dissertation. Faculty of Education, University of Ottawa.
- Senechal, M. (2005). Literacy, language and emotional development. In R. Tremblay, R. Barr and R. Peters (Eds.) *Encyclopedia on Early Childhood Development*. Montreal: Centre of Excellence for Early Childhood Development, 1-6.
- Senechal, M. and J. LeFevre. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development*, 73(2), 445-460.
- Statistics Canada. (2005a). *Learning a Living: First results of the Adult Literacy and Life Skills Survey*. Ottawa: Author.
- Statistics Canada. (2005b). *Learning our competencies: Canadian results of the International Adult Literacy and Skills Survey*. Ottawa: Author.
- Sticht, T. (2001). *The POWER of adult education: Moving the adult education and literacy system of the United States from the margins to the mainstream of education*. Washington: National Institute for Literacy.
- Thorn, I. (2001). Literacy is a labour issue. In M. Taylor (Ed.), *Adult Literacy Now* (pp. 123-136). Toronto: Culture Concepts.
- Van Horn, B., Kassab, C. and Grinder, E. (2002). *Pennsylvania's family literacy programs: Results of a statewide evaluation*. University Park, PA: Pennsylvania State Department of Education.
- Wiebe, W. (2001). Developing a learning culture within business. In M. Taylor (Ed.), *Adult Literacy Now* (pp.109-122). Toronto: Culture Concepts.



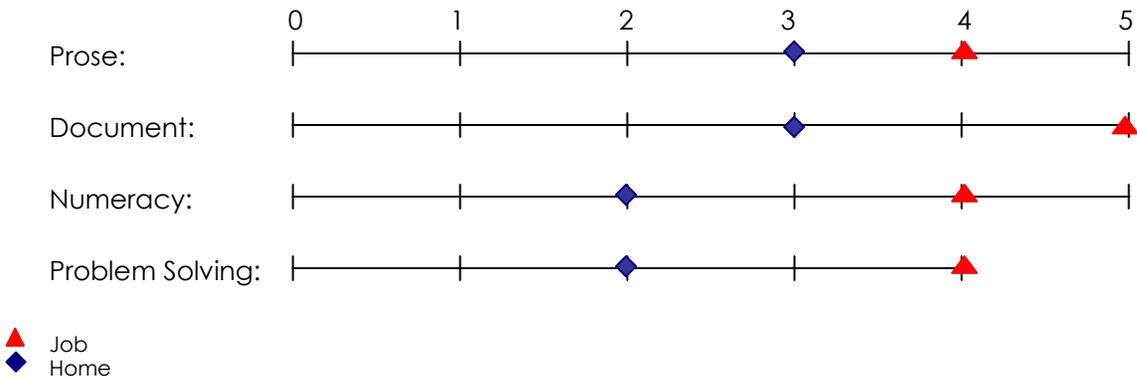
Appendix A

Case Histories



Category 0—Management Occupations

Paul



Paul has two children 8 and 10 years of age.

He was born in Athabasca and his first language was Chinese. Paul's parents emphasized educational achievement and expected him to get good grades and complete an undergraduate degree. Neither of his parents completed high school and they did not help him with homework or read to him when he was a child. Paul did not have a library card when he was growing up. He said that his parents did not encourage use of the library but "getting good grades was emphasized." They did not sing or rhyme with him. Paul's parents did not model a lot of writing and reading; he recalled his parents primarily wrote letters to family and read the newspaper occasionally. His parents watched news, opera and sports on television nightly. Paul's parents ran a restaurant and store and he said they did not have time for social or cultural outings.

Paul received a Bachelor of Science in Civil Engineering at the University of Alberta. He completed an accounting designation at the Northern Alberta Institute of Technology and an engineering designation at the University's Faculty of Extension. He is currently a Financial Manager. Paul completed some on the job training and believes "you need the right people skills to excel." His professional development to date includes four online courses in Project Management. Paul watches approximately one hour of television or videos a day, and he primarily watches the news. He uses the internet for half an hour daily, mostly for product research.

Paul expects his children to obtain a university degree. His wife reads books and he reads the newspaper daily and they place a great deal of emphasis on reading. Paul said, "I'm an avid reader. My son reads hours every day but my daughter not as much." Both of his children have library cards and they take out 10 to 15 books every second week. The family has a lot of books and Paul and his wife used to read to their children

every night until they could read by themselves at approximately five or six years of age. His wife also used to sing and rhyme with the children when they were younger.

Paul did not report a great deal of writing behavior although his wife does the family's bills and is involved with computer correspondence.

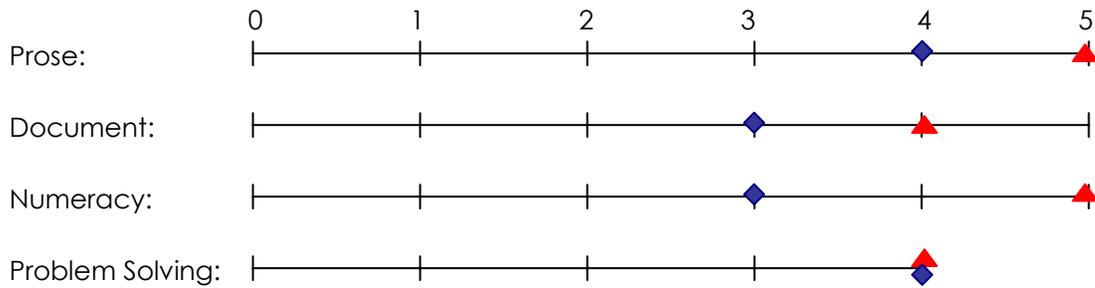
If the children have homework, "we sit down with them if they need help. We check up on a daily basis to see if they are doing homework and have to sign a form to say it's done."

Paul and his wife do not watch television around their children; "They don't see us watching TV. We watch after they are in bed." The children do not watch television during the week and watch four to six hours on weekends; they watch primarily reality television shows. Paul's son plays X-Box for one to two hours a week and the children play on the internet for approximately two hours a week, chatting on MSN but mostly participating in recreational games.

The family goes on social excursions once a month. Paul and his wife "want the kids to have fun but also do well in school. I want my kids to be successful but also have fun." The family has been to the museum and the TELUS World of Science and they participate in children's programs at the Citadel Theatre three or four times a year. The family skis a lot in the winter. Both children have piano lessons once a week and play recitals, and both take Karate twice a week. Paul's daughter also participates in Brownies once a week.



Julia



▲ Job
◆ Home

Julia has a daughter who is 14 years of age.

Her parents expected her to obtain an undergraduate degree. Both of her parents completed high school. Her mother has some college from attending nursing school and her father is an electrician with a technical diploma. Julia's mother used to write cards and letters and her father took care of the family finances, taking care of the bills and tax returns. Both of her parents read the newspaper daily and her mother read magazines. She had two or three subscriptions and would also read self-help books. Julia's parents watched the news every night and her father watched sports.

The family used to sing at church on Sundays, where her mother taught Sunday school. Julia would see her mother reading from church books. The family had a piano but would sing songs only at Christmas.

Julia and her brother were in the same grade at school. Although he is one year older than she, he was held back in school one year due to a learning disability. Julia said, "He was at the bottom of the class and I was at the top, so mom spent more time with him. I was more inclined to ask my older sisters for help."

Julia's parents read to her two or three times a week when she was young but stopped around when she was in Grade 2. Julia was ill in Grade 1, spending two to three months in the hospital and she did a lot of reading during that period but stopped after getting out of the hospital. Julia's town "had a part time library; I probably had a card. I remember going to the library a little but I relied more on the school library because it was new."

Julia's family lived in a small town and they would do cultural activities such as going to shows and factories during their vacations. Julia said her family did not go to museums or art galleries.

Julia is currently a Project Manager. She received her Certified Management Accountant designation after completing college and a professional program. She said, "CMA requires continuous learning through courses—a broad range, which includes guest speakers, an Excel course and volunteer work." She received on the job training with the previous project manager for her job.

She watches one or two hours of television a day (mostly dramas) and uses the internet for approximately half an hour a day emailing and chatting.

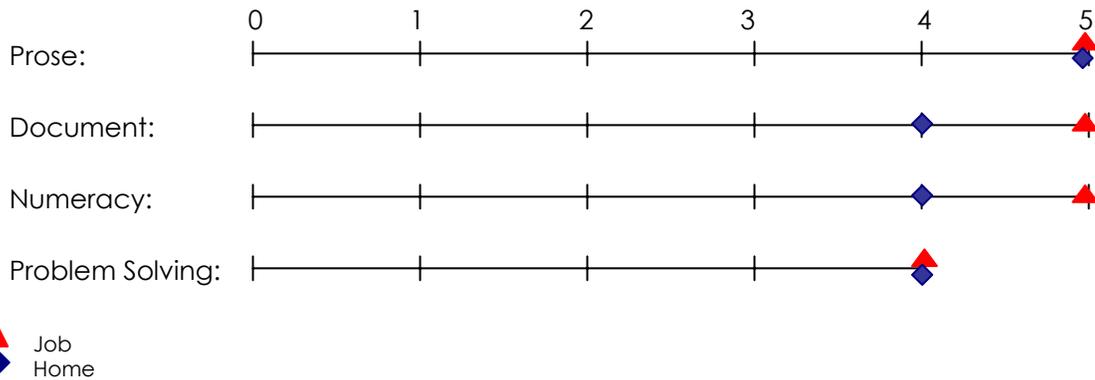
Julia expects her daughter to complete some form of post secondary education. Julia does a lot of work at home. Her husband is a caterer and their daughter sees him do invoicing, bills, orders and accounting work. Julia reads the newspaper every day and she reads magazines and books. She and her mother-in-law also cook from cookbooks. Julia's daughter also sees her parents modeling computer work including using the internet and typing reports and proposals. Her older sister models university work including reading text books and writing papers. The television is usually on if the family is home at night and Julia's daughter sees her parents watching television. Julia's husband sings to the radio.

Julia's daughter is fairly independent with regard to homework although her parents occasionally help. She said, "Just in the last year we switched from going through homework with her to asking for help if she needs it. Before this year she had a homework book and we had to sign it every night, but now she's in Grade 9 so we just have to sign tests." Julia believes that her daughter is "probably more inclined to go to her sister; she took the same courses a few years ago."

Julia and her husband stopped reading to their daughter one or two years ago. They read to her every night when she was quite young and then two or three times a week when she began school. The family has a lot of books at home and Julia's daughter buys a lot of novels and school related books (for book reports). She reads books on pop culture and biographies. Julia's daughter also uses her school's library and brings books home once a week; "She is expected to be reading a book all the time so she would have two out all the time. She brings them home but she probably doesn't read them too much at home." Julia's daughter also has a public library card although she uses the public library primarily during the summer.

Julia's daughter watches television or videos three hours a day (primarily reality television). She uses the internet for one hour daily, browsing mostly sports and entertainment websites and checking statistics. Julia's daughter goes to the museum three times a year and went to the Edmonton Art Gallery "a few times when she was younger." She attends a lot of concerts and musicals. She also used to go to the TELUS World of Science when she was younger but has not visited in four or five years. Julia's daughter goes to every Oilers game, has attended Centennial celebrations, Klondike Days, Taste of Edmonton and visited the Citadel Theatre once last year. Julia said, "I actively try to develop in her an interest in current events; school doesn't really push that. I talk to her about politics, world events, etcetera. She's not interested in anything outside of what she likes."

Danielle



Danielle has three children 7, 11 and 15 years old.

Danielle's parents expected her to do very well in school and achieve a university education. Her mother completed Grade 9 and her father completed Grade 10 with correspondence courses, equivalent to a college diploma. He also completed technical and environmental courses and was a Natural Resources Officer with the Department of National Defence.

Danielle saw her dad doing courses at home while she was growing up. Both of her parents wrote letters (her father more so) and read the newspaper every day. Her parents also read books; her father read work-related texts and her mother read mysteries and fiction books. Danielle's parents watched television every night. "We had peasant TV so it was whatever was on; sports, sitcoms the Wonderful World of Disney. We were the first ones in our neighborhood to have a color TV, so our neighbors would come to watch Wonderful World of Disney." Her mother modeled singing and rhyming, especially in church every Sunday when she was young. Danielle reports that her parents did not help her with homework; she said that they were unable to help. Her parents read to her sporadically. The family did not participate in cultural outings because "we lived in the boonies." There was also no public library access although Danielle's school had a library beginning when she was in Grade 6.

Danielle is a Senior Research Consultant with a Doctor of Philosophy in social sciences. She learns at her job but did not receive specific on the job training. She has taken a communication course and attends meetings for the American Society for Quality and the Quality Council of Alberta. She recently attended an American Society of Materials presentation on trace elements in forensic investigations and is an executive member of the Canadian Evaluative Society. Danielle does not watch television or videos and goes on the internet for one hour a week, primarily to do research and some banking.

Danielle's two younger children have a bedtime story every night. All three children completed two years of preschool prior to starting elementary school. Danielle and her husband sit with their children and help them with their homework. Their children have a Balanced Literacy Program at school and bring home books regularly. They also have their own bookshelves packed with books.

Danielle expects her son to obtain at least a university degree. Both Danielle and her husband work at home and both model reading. Her husband reads technical, work-related material and Danielle reads technical material, novels, magazines and correspondence.

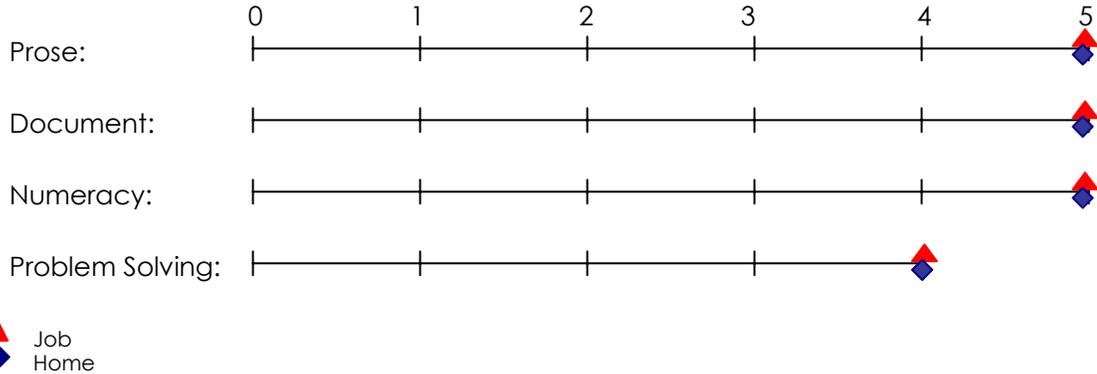
Danielle finished her Ph.D. four years ago. When she was completing her doctorate, she modeled reading and writing for about 15 hours a week. Danielle has also taught for the past four to five years and her children see her developing courses, marking assignments and examinations. Danielle's husband watches television every night.

Danielle's son has a subscription to *Chickadee* magazine. Her daughter, who has special needs, brings home books from the school library. Her son is a grade ahead in school (in Grade 3); he misses out on library time because he joins the Grade 2 class for science while his Grade 3 class is in the library. The children order books from the Scholastic Book Club; they pick books each month. Her son also has a public library card, which he uses rarely – a few times in the summer. Danielle's children are very musical; they have a lot of CDs and "it's more the kids who are doing the singing."

Danielle's children watch one and a half hours of television a day, primarily youth and adult cartoons. They use the internet three hours a week, mostly for recreational games. They go to the TELUS World of Science and the museum at least once a month. They also go to the Edmonton Folk Festival, Ukrainian Culture Centre, the Valley Zoo and the Calgary Zoo.



Jeremy



Jeremy has two children 11 and 8 years of age.

Jeremy's parents wanted him to complete high school and do well. Jeremy's parents were both "extremely bright people." His mother was a registered nurse and his father had a degree in Pharmacy. When Jeremy was 25 years old, his father died from cancer. His mother died 11 months later. Jeremy's mother practiced nursing for a few years and then ran her husband's store; Jeremy saw her invoicing and completing bills and ordering forms. His mother was a very fast reader. She read for work and would occasionally read novels. Jeremy remembered his mother finishing 800 pages in a weekend but said that she did not model this very often. He also saw his father reading novels "all the time." Jeremy's mother rarely watched television, perhaps watching on Sunday evenings. Jeremy said his father "worked 12 hours then would collapse in front of the TV." Jeremy's father watched the news every night. There was not a lot of singing and rhyming in Jeremy's household although they would sing and read at church every week.

Jeremy had a library card as a child and would go to the library every two weeks. He would sign out books about magic and crafts such as puppetry and kite building. Until he was eight years old, Jeremy received help from his mother if he had problems with his homework. He did not recall being read to although he remembered reading a lot on his own. He did not recall going on cultural outings with his parents.

Jeremy is the Director of Information Technology and is responsible for over 100 staff across North America. He has an architecture diploma from NAIT and has spent the last 23 years as a programmer, database designer, technical architect, java architect, infrastructure architect, manager and director. Jeremy has taken over 60 week-long courses in Information Technology. He did not do any on the job training for his position.

Jeremy watches television two hours a week, primarily Charlie Rose and A&E. When he watches movies, they are usually family-oriented fantasy. He uses the internet ten to fifteen minutes a day, mostly for product research and some shopping.

Jeremy's primary focus for his children is on education and he expects them to achieve a minimum of a bachelor's degree. Jeremy wants his children to choose a career by

pursuing what they love. His wife spends one to one and a half hours doing homework with their children every night and a minimum of one hour a day working on reading comprehension.

Jeremy's 11 year old child could read fluently at three and a half years of age and read at a Grade 8 level in Grade 3. Although his youngest child is a little slower, he could read well by five years of age. Jeremy attributes this to reading to his children every night since they were 18 months old. He and his wife made an effort to teach them to read early; his wife started emphasizing this when the children were around two and a half years old.

Jeremy models writing behavior for his children. He writes research and design papers and appraisal papers on the computer and is published in technical magazines. The family has more than 900 books at home; there are seven to eight books beside Jeremy's bed. There are also books in the living room including novels and technical papers. Jeremy's wife reads the newspaper every day; the *New York Times*, *Globe and Mail* and the *Edmonton Journal* are delivered daily. His wife also reads *Vogue*, women's fashion magazines and occasionally reads novels.

The family watches movies together on the weekend. Jeremy and his wife sang and rhymed with their children more when the children were younger. Jeremy wrote a number of children's stories for his children when they were young. He also works as a part-time illustrator and animator and he models a lot of art and design; his children have also learned some art and design.

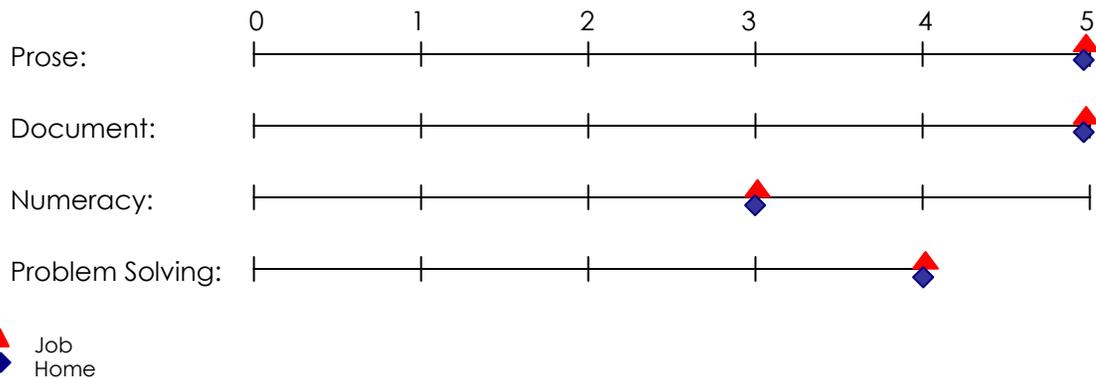
Jeremy's children are very computer-literate and know Photoshop and Flash. His 11 year old son is "obsessed with the computer"—he has a computer in his room and knows HTML very well. He also plays recreational games on the internet for half an hour a day. The children watch television—mostly movies—for a few hours a week. His older son has a Game Cube and a Playstation but he refuses to play with them or watch television.

Both children are honor students with high vocabulary levels. Jeremy helps them with studying and his wife does one to one and a half hours of extra homework with them a night. His 11 year old son was the only child in the 101 Book Club to complete reading 101 books in a year. He has 200 to 300 books at home. Jeremy used to read to his 11 year old son every night but stopped a few years ago; now he reads to himself and listens to his father reading to his younger sibling and cousins. Although his son has a library card, they do not visit the public library often. They go to Chapters frequently. His son has a lot of audio books and goes to the school library once every two weeks because it is required.

The family goes to cultural centres once every two months. Although Jeremy has no formal writing training, he has been published and said he "can't figure out" why he was able to publish articles and others with more training and experience are not.

He reads constantly. Both his siblings are very literate and he believes "it's a genetic trait"; his sister has a degree in English and his brother is a pharmacist.

Jennifer



Jennifer has two children aged 16 and 14.

Jennifer's parents came from Germany and her father died when she was 16 years old. She knows her parents wanted her to complete high school but was unsure about their expectations for any further education. Jennifer's mother was a homemaker and she did not know about her mother's schooling. Jennifer's father was a millwright and a nuclear power plant worker; he had trade school training. Jennifer did not recall seeing her parents writing or reading. Her father would watch wrestling on television. She remembered her mother singing with her little sister. Jennifer did not remember her parents reading to her although she did get books from her friends as a child. She also did not recall her parents helping her with homework or going on cultural outings. She lived in a small town that did not have a library.

Jennifer is a Material Controller with a high school diploma. She completed on the job training and has completed a lot of courses (for example, computer and supervisory skills) that were between half an hour and several days in length. She watches television three hours a week; mostly reality television but she also loves documentaries. She uses the internet for half an hour a week primarily to do research for things that she needs.

Jennifer expects her children to get a university degree. She encourages her daughter to write. She said her daughter "loves to journal and write stories" although she does not show her mother. Jennifer sees her daughter reading a lot and said, "I'm addicted to reading books and so is my daughter." Her son is primarily interested in computer games.

Jennifer's children do not see her watching television. She used to sing and rhyme with her children often but does not model this very much anymore. Her daughter frequently writes songs.

Jennifer helps with her children's homework to some extent. She does not help with math but will help them if they need help and watches and asks questions. Her children are "too old" to be read to but she used to read to them every night when they were younger. The family has a lot of books at home. Jennifer's children used to use the school library but they now go to Chapters and used book stores. Her children used to have cards for the public library but "they no longer have time to go."

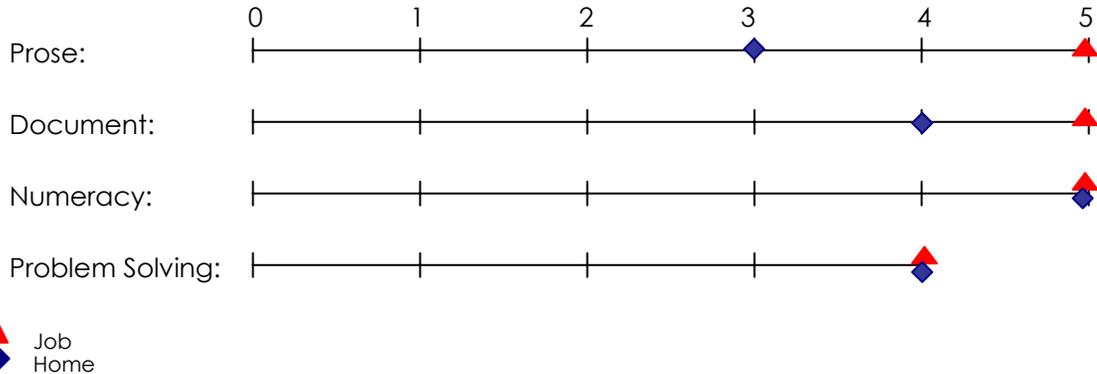
Her children watch three hours of television a week, mostly adult cartoons. Her son uses the internet for one hour a day and plays recreational games for half an hour daily. Her daughter uses the internet to email and chat.

The family goes on cultural excursions at least twice a year.



Category A—University Education

Susan



Susan has two children aged 16 and 17.

Susan's mother is from Croatia. She did not know English when Susan was growing up and finished Grade 3. Susan's father completed Grade 2 and learned English in Canada. English was Susan's second language; she did not speak English until she was five years old. Susan saw her parents "writing letters back home to Croatia, bills, taxes; no journals." She did not recall her parents modeling reading although "they learned eventually to read the newspaper but not often." She remembered seeing her parents watch TV although not very much. She did not remember her parents modeling singing or rhyming.

Susan said she grew up "in the bush and did lots of outdoor activities." She remembered her parents "couldn't help much with homework, but they would try." Susan considered this to be an advantage because she had to work to learn English. She did not recall her parents reading to her. Susan went to the school library more than once a week. She also had a library card and visited the public library once a month. She did not remember going on cultural outings with her parents.

Susan got her education at NAIT and works as a Project Accountant. She did not finish her degree; however, she did complete a lot of on the job training. She has taken "lots of little courses" including computers and supervisory skills because her employer has a college which offers courses. She watches television or videos two hours a day (mostly documentaries). She does not use the internet at home but uses it a lot at work.

Susan and her husband read a lot of books and the newspaper on the weekends. They "really encourage reading" and expect their children to obtain college degrees. When their children were young, Susan and her husband read to them every night. They also did a lot of homework with their children and would go over tests with them.

Susan models writing such as “business stuff” and paying bills. Although she does not keep a journal, her daughter does. Her children see Susan watching TV every evening; her husband watches more television than Susan. Her daughter is “really into music” and plays music “a lot.” Her children use the internet mostly for chatting and email; her son does not use the internet very much and her daughter uses it for two hours a day.

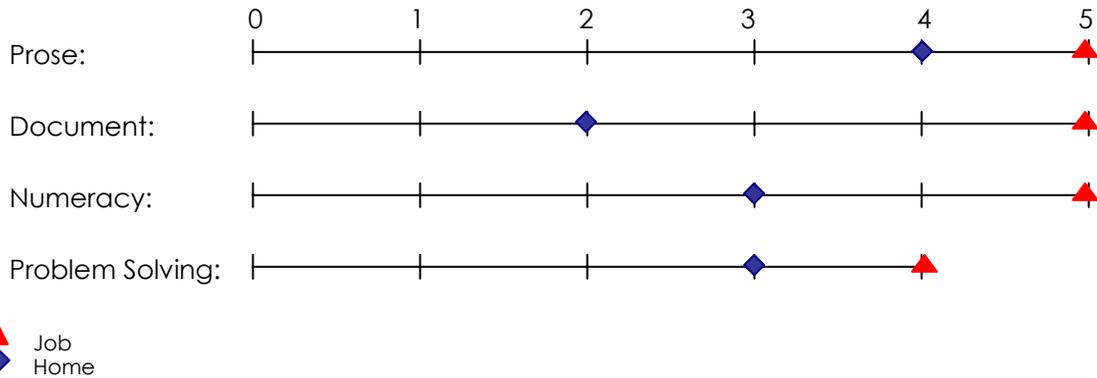
Susan’s son watches television “all the time,” watching mostly dramas three to four hours a day. Her daughter primarily watches sitcoms and watches television for approximately one hour a day.

When Susan’s children were little they “used to go to the library all the time” for summer reading programs and would take a lot of books out, however, her children no longer like to read. Susan’s children “bring home books from the school library but only when they have to.” They have a lot of books at home; they have library cards but do not use the library very often because they buy books.

Susan and her children go to concerts and attend the Heritage Festival annually. Susan does a lot of activities at her children’s school. She said, “When the kids were little, I was often one of the volunteer moms to go on field trips.” Her children are also “really into sports” and spend a lot of time participating in them.



Ryan



Ryan has four children—a three year old, a two year old and one year old twins.

Ryan recalled “there was never really any pressure to go to university. Neither of my parents went so they never saw it as too beneficial but they expected high school grads.” Ryan’s mother graduated from high school and completed some college. His father completed Grade 10 or 11. Ryan recalled his father “read all the time. Newspapers every day, biographers; all non-fiction.” He would also listen to self-help tapes. Ryan’s mother “read *Good Housekeeping*; lots of magazines and the newspaper everyday.” He saw his parents paying bills and taxes and his mother cooked with recipes from cookbooks.

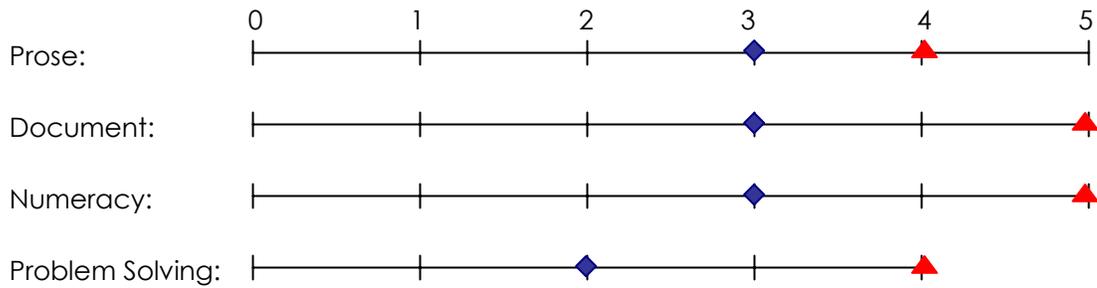
Ryan’s parents read to him once a week when he was little. When he got older, they gave him some stories on audio cassette and he listened to these instead. Ryan remembered the stories being moralistic bible stories and “stories with good morals.” Ryan’s parents helped him with homework when he asked for help. They took him to the museum “more than a few times” and to the Edmonton Art Gallery and TELUS World of Science once. Ryan’s father gave him a job when he was 12 years old typing addresses and reading and entering information on a computer. His father also gave him books on business and he would learn from business men.

Ryan completed high school and is currently employed as an Investment Advisor. He completed one year of general studies in university but dropped out for a “good job in the family business.” He also completed three months of bible study at a bible college. Ryan has taken some courses through correspondence including Canadian Securities, Conduct and Practices and Investment Management Techniques after he started working. Ryan completed some on the job training but “no courses or anything.” He completed professional development—one day seminars are “part of the industry. Every three years you have to earn continuing education credits so you have to keep learning.” Ryan watches videos for approximately five hours per week, mostly drama. He uses the internet for three hours a day, usually to do research to gather financial and business information.

Ryan expects his children to complete high school and have “a plan. I want to see ambition if they’re not going to university.” Ryan’s three year old hears him singing sometimes and occasionally sees him using the internet. Ryan reads to his son four times a week for fifteen minutes at a time. His son has a lot of books at home and does not use the internet. Ryan has gone to the museum with his son a few times and the IMAX at the TELUS World of Science and library once.



Mark



▲ Job
◆ Home

Mark has a 6 year old son.

Mark's parents expected him to complete university. Mark's mother has a high school diploma and his father had a degree in Chemistry. He also did some post-graduate work although he did not get a post-graduate degree. Mark's father modeled reading a lot; "I saw him every day reading the news, books and magazines." His mother read magazines, the newspaper and wrote in a diary every day. His mother also did the bookkeeping, tracking household expenses in a ledger. Mark attended church weekly until he was 12 or 13 years old and heard singing there. He did not remember his parents helping with homework. Mark's father did not read to him although he made up stories until Mark was six years old. Mark did not have a library card when he was a child. He went to the TELUS World of Science two or three times.

Mark is a Statistician and has a Master's degree in Statistics. He has completed "some on the job training but it was self taught. I do lots of reading to be familiar with other areas." He has completed two courses to learn new elements of statistical software. He has also taken one hour webinars on the software's new features to decide if his company should purchase it. Mark watches television for one and a half hours a day, preferring to watch the news, reality television and drama. He uses the internet for half an hour a day, mostly for banking and email.

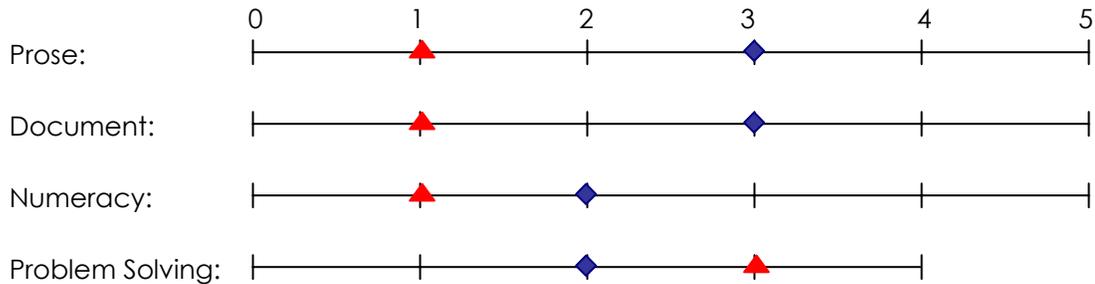
Mark's son is autistic, "so I'll be really happy if he finishes high school." Mark plays guitar with his son every two weeks. Mark models reading for his son, reading the newspaper daily as well as magazines and books. Mark's son sees him paying bills regularly.

Mark helps his son with homework. His son is in a reading program at school where he has to read a book to his parents every night. Mark and his wife read to him five times a week; they have lots of books and try to read to him every night. They take out books from the library once a month. Mark didn't think his son has a library card but he and his wife have library cards and they take out books for him. Mark's son watches two hours of youth cartoons a day and then watches preschool programming. He does not use the internet but he used to play computer games for half an hour a day.

The family goes to the museum one to three times a month and the TELUS World of Science once a year. Mark's son is verbal and currently functions at the level of language of a three year old. Mark said, "We've focused a lot of family attention on getting him there. His occupational therapists have been amazed at his progress. Speech and language are still problematic; we have to prompt and correct everything he says." Mark's wife has "read ten books on how to develop literacy for him and I've read two."



Janice



▲ Job
◆ Home

Janice has a 10 month old.

Although Janice's parents did not push for college, they encouraged it "because of my high school marks." Janice's mother completed high school and her father finished one year of college. Her mother read a lot, including novels and the newspaper daily. Her father also read the newspaper every day. Janice's mother paid bills and Janice recalled her modeling writing in a journal once a month. Her father did the family's taxes. Janice remembered her mother "sang constantly" and both parents sang at church once a week. She also saw her parents reading hymnals at church. Janice "went to mom with problems with homework but more often to siblings." Her parents read to them but not nightly. They went to the museum and TELUS World of Science once a year. Janice had a library card and went occasionally with her parents.

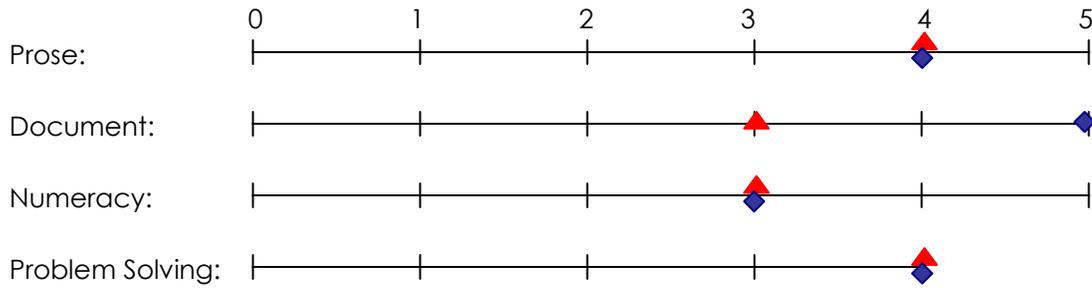
Janice is a wedding singer and music minister. She completed one year at university and has a college diploma from a Therapist Assistant Program. Her on the job training was singing and she took voice lessons. She watches television for two hours a day, mostly news and reality television. She spends five minutes a day on the internet to do email.

Janice expects her daughter to get a college degree. Her daughter sees her reading parenting books and she models writing by journaling once a week. Janice models singing and rhyming a lot. She goes to church once a week, reading hymns and singing. Janice reads "at least one book a day to her" and they have lots of books at home.

Janice's daughter watches television for half an hour a day, primarily preschool programs. She does not access the internet. They have not gone on any cultural outings yet although they have attended the "Books for Babies" program. The program's activities include singing rhymes and playing with books while discussing the pros and cons of each book; they get to keep one book a week.

Janice knows she and her husband are not good readers and she wants her daughter to be different.

Philippe



▲ Job
◆ Home

Philippe's child is 10 years old.

Philippe's parents expected him to complete high school. His mother had a nursing degree and his father had a technical school diploma. Philippe recalled his mother reading religious material but did not remember his father reading. Philippe's parents were Francophone and they learned English when he learned so "I never had them helping me or teaching me proper English." His mother helped him with spelling homework. Philippe did not recall his parents reading to him or going on cultural outings. He did not go to the library although he did have a card.

Philippe works as a wedding videographer and web designer. He will receive an Engineering degree from the University of Alberta in 2006. He taught himself for his current job and did not take any courses.

He watches two hours of reality television a day. Philippe also uses the internet for two hours a day, mostly for research.

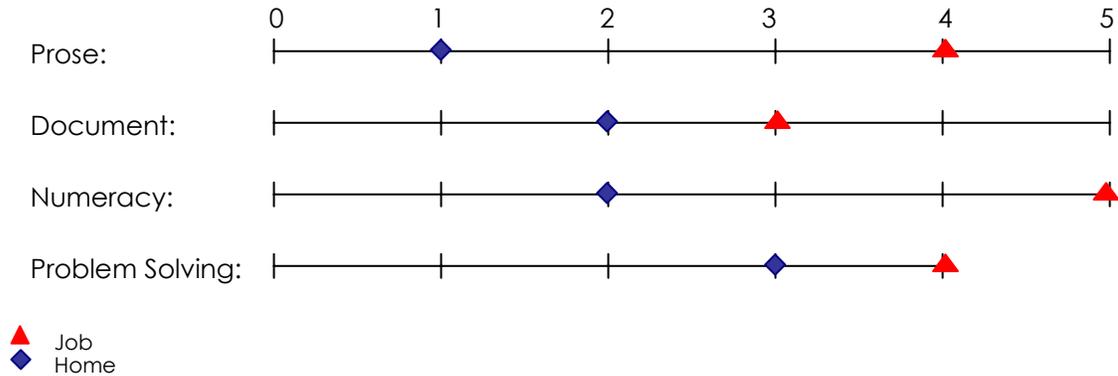
Philippe expects his daughter to obtain a university degree. He models reading by reading the computer and flyers. She does not see him writing although she sees him modeling singing and rhyming a lot. He goes to church once a week and reads hymns and sings there.

Philippe reads to his daughter three times a week and his wife reads to her more often. There are a lot of books at home for their daughter. Their daughter watches preschool programming on television or video for half an hour a day. She does not access the internet and has not gone on any cultural outings yet.



Category B—College or Apprenticeship

Wendy



Wendy has two children aged 8 and 10.

Wendy's parents expected her to complete high school. Her mother graduated from high school and her father had an undergraduate degree. Wendy remembered seeing her parents writing bills and recalled her father was an avid reader. He read magazines, books and the newspaper every day. Her mother read the newspaper as well as magazines and cookbooks. Wendy remembered her parents occasionally watching the news but "not for very long." Wendy had very little homework and her parents rarely helped her. Wendy's parents "probably read to her" but not every night. Her family "traveled extensively so we went on cultural outings that way. There were no museums or anything like that though."

Wendy had a library card and went to the bookmobile once a month to borrow books. Wendy's parents "had low expectations. They were a different type of parent; they weren't as involved as parents now. We always have to check homework and make sure reading is done."

Wendy is currently an Executive Assistant. She completed three and a half years towards a Bachelor of Arts but did not finish her degree. She has some on the job training but no formal coursework. She watches drama on television and uses the internet "for music purposes." She watches one hour of TV and uses the internet for half an hour a day.

Wendy expects her children to graduate from university. She does not model writing for her children and they see her occasionally reading (primarily newspapers, magazines and internet information). Wendy's children also do not see their parents watching television because Wendy and her husband watch only after their children have gone to bed. Wendy's family sings everyday because "music is a very integral part of our lives."

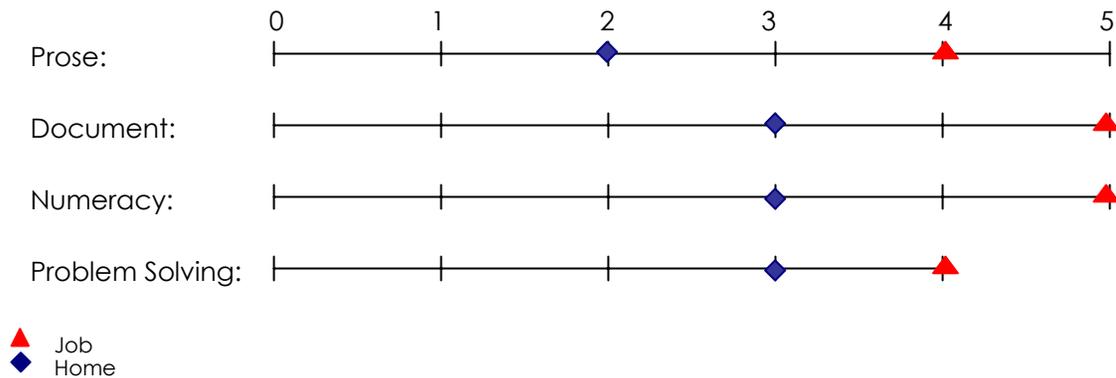
Wendy helps her children with homework if they need help. She read to her children every night until they were able to read to themselves. Wendy's children "have books they have to read every day. I have to sign a sheet for school. Twenty minutes every day, mandatory but it's a forced activity. Neither likes to read." Wendy has a library at home and her family goes to the public library once every couple of months. Her kids bring home books from their school library as part of their reading program. They also buy books once a month through Scholastic Book Club.

Wendy's children watch television for half an hour a day including time spent playing Playstation. They watch the news on TV and are busy with sports and guitar lessons. Wendy said, "They'd rather play sports." Her children do not spend time on the internet.

They go to the TELUS World of Science once a year but have not visited the Edmonton Art Gallery or Royal Alberta Museum.



Rebecca



Rebecca has a four year old and a two year old.

Rebecca's parents "expected her to get an A in all subjects and to go to university. If we didn't get As we would get in trouble." Her mother completed Grade 11 and her father, Grade 6. Rebecca's mother "did a lot of knitting, baking and crafting. Not a lot of TV watching or reading." Her father "wasn't home a lot. When he was home he'd watch TV or read the newspaper every now and then." Rebecca did not recall her parents reading books or magazines—her mom "refers to books as coasters." Rebecca's parents did not help her with homework. When she was a small child, her parents read her bedtime stories nightly but stopped reading to her when she could read by herself in Grade 1. Rebecca did not remember going on cultural outings with her parents although she went to the TELUS World of Science with school. Rebecca remembered her parents "always said, 'don't be like us.'"

Rebecca is a Financial Aid Officer. She is thinking about getting a Proprietary School Management Degree online. She completed a Business Computer Specialist program with CDI College and has completed a lot of on the job training and professional development. She has completed student finance training through the government and attends seminars and information sessions a few times a year. Her Career and Information System Training was a three day program. Rebecca has also completed "little online courses for work like effective business writing, writing a business plan. You do courses on your own and get a certificate." She has completed a one day conflict management course.

Rebecca usually watches two hours of television a day, mostly drama. She uses the internet for approximately two hours a day at work, primarily to do research about student finance and financial services. She emails and does online banking at home.

Rebecca wants both of her children to go to university. She teaches every couple of months and her children see her marking her students' work. They also see her doing finances and reading handouts from her son's school. Her son does not see her watching television because she watches after he is in bed. She sometimes models reading in books and her children occasionally see her using the internet.

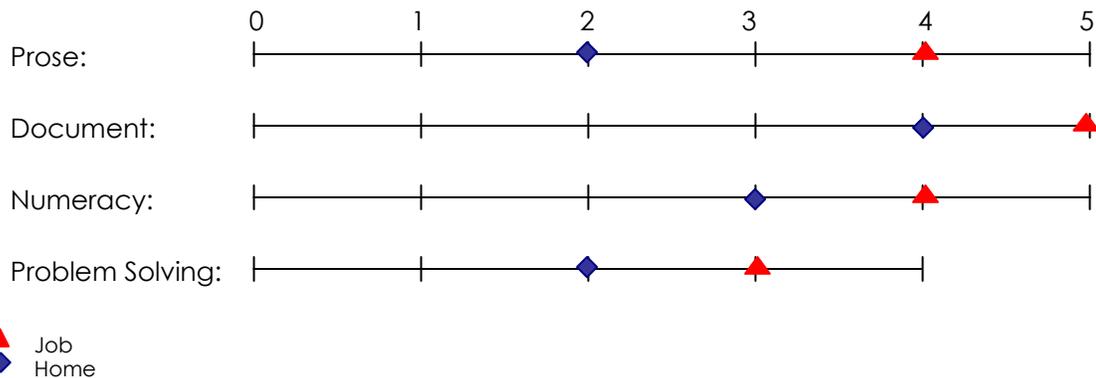
Her son practices printing in scribblers and writes letters for one hour a day. They have story time every second night. Rebecca's son attends French immersion and he brings home books from his school's library. His school has a Home Reading Program where he brings home one book a week for them to read together. After her son has read to her, Rebecca signs a form confirming that he completed his reading. Rebecca's son brings home four books a month; two are assigned to him and he chooses two on his own.

Rebecca helps her son with homework. Her son has his own bookshelf and a lot of books. He also has a public library card and visits the library every few months although more in the summer. Rebecca's son does not watch television during the week but he watches cartoons for three hours on the weekend. He uses the internet for half an hour a week to play educational games.

Their cultural activities include going to Fort Edmonton and Artworks. They do not visit the museum, art gallery or TELUS World of Science because he goes to these places with his school. Rebecca rhymes and sings songs with her daughter, much the same way she did with her son when he was younger. Her son also does extra work (problem solving, math, drawing and shapes) in a workbook for half an hour a day.



Erin



Erin has a 14 year old.

Erin lived with her mother until she was seven years old and then moved in with her aunt. Erin's mother had a Master's in Science and her aunt is a teacher with a Bachelor of Education. Erin's aunt expected her to get a university degree. Erin thinks "had I grown up with my mom, I would have done more, gone further with my education. My aunt kind of gave up."

Erin recalled her mother modeled writing letters to family "all the time." Erin's mother "made me memorize the times table by age seven and she expected me to write letters." Erin's aunt modeled writing as well. Erin recalled, "She was always writing and preparing for class or scoring and marking papers. She kept a journal but I was not allowed to see her write in it." Erin's aunt also wrote essays for a course she was taking. Erin recalled seeing her mother model reading "but not a lot. I can't really remember what. Recipe books, text books; she was taking school." Erin's aunt read "all the time." She read the newspaper every day as well as books, *Reader's Digest* and magazines. Erin's mother sang "every now and then" but her aunt did not. Erin did not remember her mother watching television although her aunt would watch every night (mostly the news and Ed Sullivan).

Erin's aunt helped her with homework "but not that much. I didn't like to ask for help because she was a teacher and would mark up my work." Her aunt read *Anne of Green Gables* to her every night. Erin did not remember going on cultural outings with her. She had a library card but did not go frequently.

Erin is a high school graduate with a Medical Secretary Diploma from Career College. She works as a secretary and a telephone research surveyor. She has completed on the job training and said she is "always system learning because we're always updating." She has taken a course for Freedom of Information and Protection of Privacy and has completed courses for dealing with conflict in different situations. She watches approximately 15 hours of television a week, mostly sitcoms. Erin uses the internet about 12 hours a week to email and chat.

Erin expects her daughter to complete a university degree. She models writing by completing bills and taxes. Erin does computer work at home and her daughter sees her reading off the computer. Erin and her daughter watch television together. Erin is in a choir and practices at home but she tries “not to sing around my daughter because she doesn't like it.”

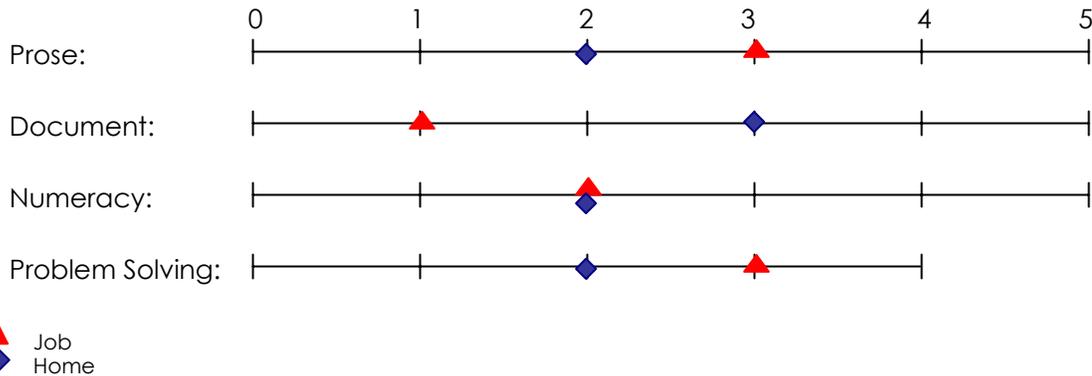
Erin's daughter “doesn't ask for help with homework. But if she does I will help, especially with computer research.” Erin no longer reads to her daughter and said, “It wasn't a nightly thing when she was a child either.” Erin's daughter likes teen magazines and Erin is “always buying her magazines. There are not a lot of books for her at home, just more magazines.” Erin's daughter “only brings books home from the library if she has to, like for Language Arts class.” She has a library card but does not use it. Erin's daughter “used to like books” and went to a summer reading program at the library when she was in Grade 2 or 3. Erin doesn't remember when her daughter “stopped liking books.”

Erin's daughter watches two hours of sitcoms a day. She also uses the internet for two hours a day where she “reads an ongoing story and talks to friends on the internet.” She uses the internet primarily to email and chat.

Erin and her daughter used to go to movies once or twice a month. They also “used to go to the museum, TELUS World of Science and zoo. But we haven't gone anywhere since last year; she's not into that anymore.”



Allison



Allison has four children—a three year old, a two year old and one year old twins. (Allison is married to Ryan.)

Education was emphasized in Allison's household when she was growing up and "college was very much encouraged—all the kids in my family went to college." Her mother and father both started university but did not finish. Her mother left school when she was one month away from graduation and her father quit when he was drafted for Vietnam. Allison's parents modeled reading frequently. Allison "read a lot and was read to a lot." She said, "My mom is an avid reader. She read novels to us every night, one hour per night for sure." Her mother also read the Bible, magazines, newspapers and National Geographic every day. Her father read the newspaper daily and enjoyed reading magazines. Allison's parents did their taxes together for one week a year and "I saw dad always doing bills." Allison "saw mom always making organizational lists, stamp collecting, cooking with cookbooks."

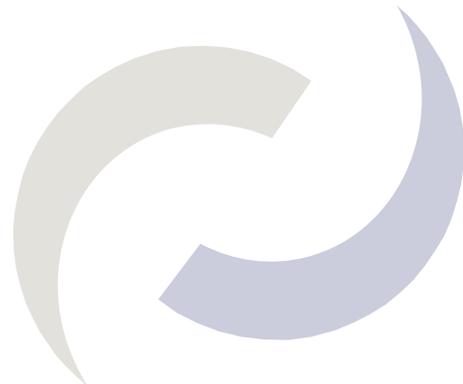
Allison's family was quite musical. Her father "sang a lot and four out of seven nights we sang grace at dinner". Her parents would sing and follow in the hymnal once a week at church. She took piano lessons for five years and "used books with notes and words printed out." Allison's mother "did intense journaling and she's written several types of documents. I saw her writing every day in it." Her father did some storytelling although he read from books more often. Allison's mother helped her with homework, "She did it with me or just if I needed help." The family would go to museums, art galleries and TELUS World of Science twice a year.

Allison is a self-taught photographer. She completed one year of Fashion Design at a college. She and completed a year and a half of bible college. She taught herself Photo Shop and "computer stuff" but has not completed workshops or courses. She watches five hours of television a week (mostly drama) and uses the internet for one hour a day primarily for product research for photography. She also looks at other photographers' websites and emails.

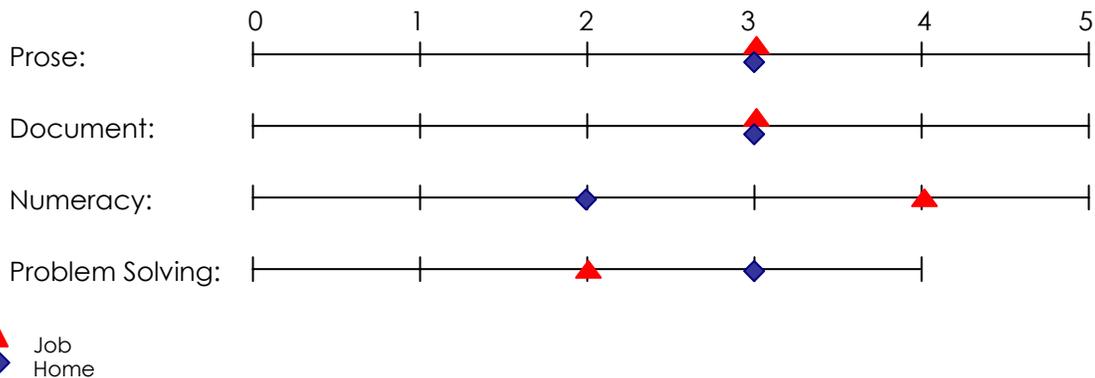
Allison wants her children to complete high school and “post secondary with the possibility of something further.” She said, “We read a lot; 15 minutes a day. We color too.” Her three year old is in preschool and is learning numbers and the alphabet. He “is starting to write his name and do letters.”

She models reading for her three year old. He sees her reading to him and reading magazines, on the internet and “every once in a while” in a book. He also sees her cooking with recipes from a cookbook. He also listens to her singing—they sing together when she is driving.

Her son has a lot of books at home to read. He watches preschool programming for half an hour a day and does not use the internet. Allison and her children go to the museum and TELUS World of Science once or twice a year.



Eric



Eric's child is two years old.

Eric's parents expected him to do well in school and get his high school diploma. His mother was a high school graduate and his father was a pipe fitter with a technical degree. His parents modeled writing by doing bills, taxes and writing letters. He remembered his mother read "all the time" and his father read the newspaper every day. Eric recalled, "We only had three channels on TV. My parents watched the news every night." Eric and his mother would sing and rhyme together. Both parents helped him with homework if he needed help. Eric's mother read to him three nights a week. Eric remembered, "We occasionally went on cultural outings. Roughly twice a year." Eric used the school library because the town he grew up in "didn't have a public library then."

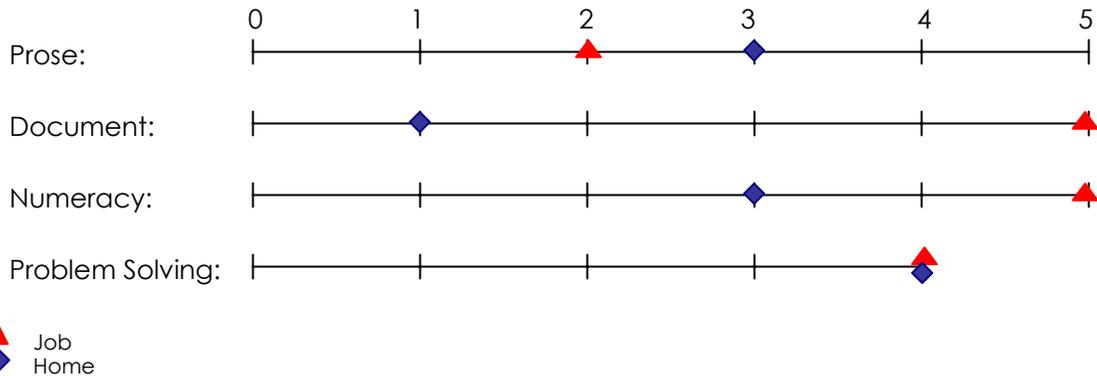
Eric is a pipe fitter. He has a high school diploma and a journeyman ticket from NAIT. He has completed a lot of on the job training including an introductory management course for foreman training. He usually watches documentaries and will watch television for half an hour a day. He uses the internet for "less than half an hour a day; more like one hour a week" (mostly for research).

Eric expects his son to graduate from high school. Eric's son is encouraged to read and his parents read to him every night. Eric's wife models writing by doing the taxes, bills and letters. Eric reads the newspaper daily and will occasionally read magazines. Eric's son sees him on the internet but does not see him watching television. They occasionally watch cartoons together. Eric's wife sings around the house.

Eric's son is "starting to read letters. I will purposely mess up words in the book and he'll correct me. It's more pictorial though." They have a lot of books at home. Eric's son will watch one hour of television daily, mostly watching preschool programming. Eric and his son will "go together on the internet, maybe one hour a week and will look at websites for Sesame Street and Dora." They have gone to the zoo "a few times" and the TELUS World of Science once.

Category C—On the Job Training

Lindsay



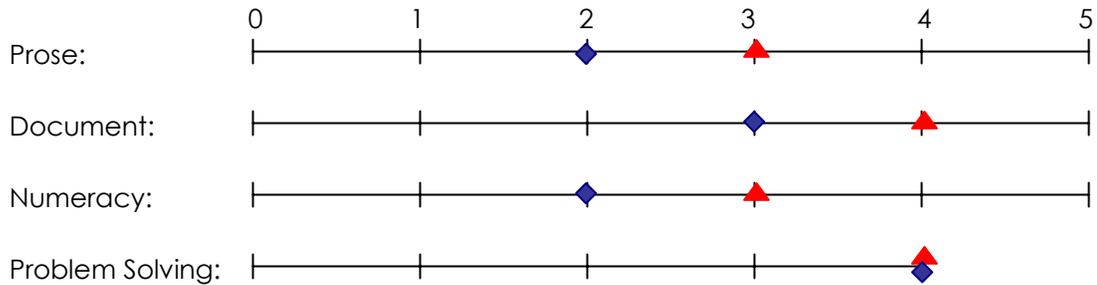
Lindsay's child is 16 months old.

Lindsay's parents wanted her to complete high school. Her parents both had Master's degrees, her mother's in education and her father's in engineering. Lindsay's mother would model writing by typing letters on a typewriter. Lindsay did not remember seeing her father writing because "he worked in his office." Both modeled reading. Her parents read the newspaper every day and her mother read a book once a month. The family would watch an hour of television a night. Lindsay remembered her mother singing at family functions but did not recall seeing her father singing or rhyming. Her parents would help her with homework if she needed help. Her mother read to her every night when she was young. Lindsay remembered going to the TELUS World of Science with her parents once. She "had a library card and went to the book mobile once every week or two."

Lindsay is an administrative assistant with a college certificate. She completed some on the job training and took a First Aid course. She watches two hours of television a day—mostly preschool programming because of her son but she also enjoys drama. She uses the internet for half an hour a week, primarily to do banking.

Lindsay expects her son to get a university degree. Her son "loves books. I read to him as much as I can; at least once a day." They have a lot of books at home. Lindsay's son sees his parents reading to him but they do not model writing. They watch one or two hours of preschool cartoons together a day. He does not use the internet. Lindsay and her husband sing and rhyme to their son and have taken him to the museum once.

Heather



▲ Job
◆ Home

Heather has a 14 year old.

Heather's mother completed Grade 9 and her father finished Grade 10. They expected her to get a high school diploma. Heather said, "My parents were old school. They worked most of the time." Heather's mother modeled writing by doing bills and taxes but she did not recall seeing her father writing. Her mother read books on politics and both her parents read the newspaper every day. Heather recalled seeing her mother watching television every night. Her father would watch news and sports. Both her parents loved music and both modeled singing and rhyming. Heather remembered a lot of singing around her house. Heather did remember whether her parents helped her with homework but she "probably asked mom if I needed help." She did not remember her parents reading to her or going on social excursions but she did go to the library often.

Heather is a high school graduate and works as a Material Control Assistant. She learned her job mostly through on the job training. She took a course on Excel through her employer but did not finish. She watches television for five to six hours a day, mostly watching drama but also reality television and documentaries. She talks to her son, who lives in Vancouver, on MSN for one hour a day. She usually uses the internet to email and chat.

Heather expects her son to graduate from college or university. She said she has "probably taught my kids more about literacy than my parents taught me." She read to her son every day or night. She modeled writing by doing bills and taxes, journaling and writing letters. She is "always reading novels, magazines and the newspaper every day." Her son saw her watching television every night.

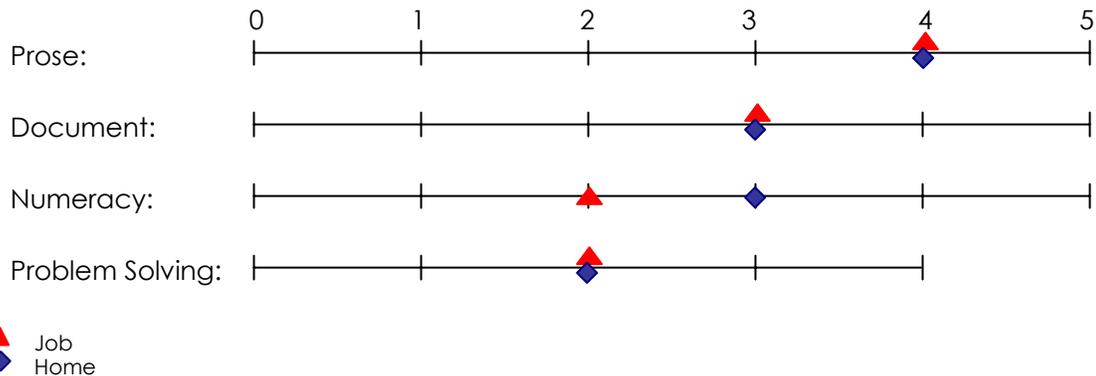


Heather considers her family very musical. They do a lot of singing and rhyming and her son is “very passionate about the guitar.” Heather “helped with homework when he needed help.” The family has a lot of books at home. Her son “often brought home books from the school library and he has a public library card. He would go once every couple of weeks. We used to go to Chapters and read.”

Heather’s son watches television and video for two hours a day, mostly music because he is so passionate about the guitar. He is on the internet for four to five hours a day, mostly to chat and email. They go on social excursions like the museum and TELUS World of Science once every couple of months.



Melissa



Melissa's child is 10 years old.

Melissa's parents expected her to get a high school diploma. Her mother had either Grade 11 or 12 and her dad completed Grade 4. Melissa remembered her parents modeling reading. Her mother "always read novels" and her father "read the newspaper, probably every day." Her mother also modeled writing by doing bills and writing letters. Melissa did not recall her parents singing or rhyming. Her mother helped her with homework when she needed help and read to her occasionally. She did not recall any cultural outings and did not have a library card because there was no library in her hometown.

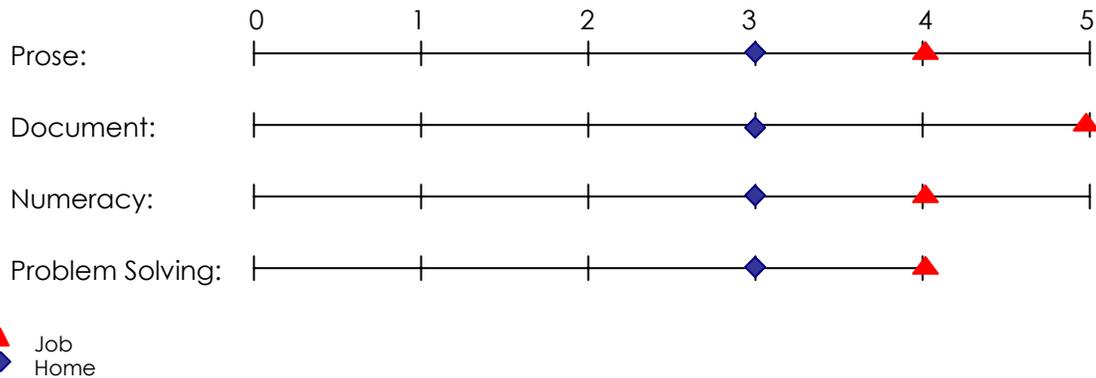
Melissa is an administrative assistant with a Medical Secretary Diploma. Her on the job training expanded on what she learned in college. She has not taken any courses or workshops since beginning her current position. She watches two hours of television a day, usually drama and goes on the internet for 20 minutes a day to do research and play games.

Melissa expects her son to get a university degree. She models reading for her son, enjoying magazines and novels. She does not model writing and she no longer sings around him although she "used to when he was younger." Melissa helps her son with his homework.

Sometimes she looks over his work to make sure he is doing it correctly and will help him if he asks for help. She still reads to her son "one or two nights a week. It used to be every night. One to two times a week I get him to read aloud. The other nights, he reads by himself. He hates reading though." They have a lot of books at home and her son brings books home from the school library one to two times a month.

Melissa's son watches television, mostly youth cartoons, for one and a half hours a day and he uses the internet for an hour a day. He is only allowed to access sites that Melissa knows or sites given by his school. He uses the internet usually for recreational games. Melissa and her son have gone to the museum twice and recently visited the TELUS World of Science for the first time.

Tanya



Tanya has an 11 month old.

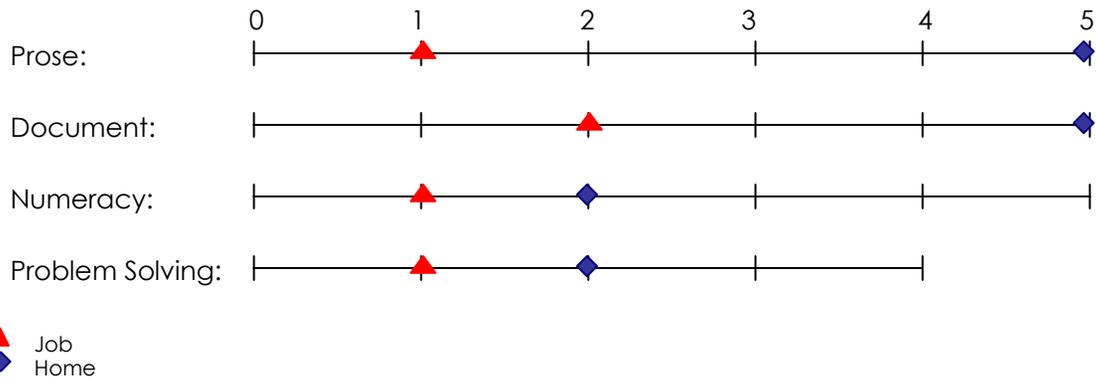
Tanya's parents expected her to graduate from high school. Her parents are both from Portugal. Her mother completed Grade 3 and her father finished Grade 5. Tanya remembered her parents modeling writing. Her mother was "constantly writing letters. I also saw her writing cheques. Dad wrote cheques and did bills." Her parents watched the news every night. They also modeled reading. Her mother read romance novels and her father read incoming mail. She did not remember either of them singing or rhyming. Her father "tried to help with homework but it didn't always work. They were taught differently; different procedures for math." Tanya said her parents did not read to her often. Tanya's first language was Portuguese. Because her parents did not speak English well, she learned English from her siblings when she was about three years old. Her family went to church functions on Sunday but they did not read or sing. Instead, they had processions and get-togethers. She remembered going to the Muttart Conservatory with her parents once a year but did not recall visiting the Art Gallery, TELUS World of Science or museum. She did not have a library card when she was a child.

Tanya has a high school diploma and works as a data entry clerk. She completed on the job training and has taken one Excel course for professional development. She watches television for approximately two hours a day (mostly sitcoms) and uses the internet for half an hour a week, primarily to do online banking.

Tanya expects her daughter to get a university degree. Tanya and her husband do not model writing, except for doing bills. Tanya's daughter sees her parents watching television. Tanya reads magazines and newspapers two to three times a week. She sings and rhymes with her daughter everyday. She "tried reading to her but she wasn't interested and I haven't tried in a while." Tanya's daughter has a lot of books.

Tanya said, "I'm trying to encourage her to be a reader and to have fun with music because she's interested in it now." Her daughter does not watch television or videos or use the internet. They have visited the TELUS World of Science once.

Veronica



Veronica has three children who are 8, 14 and 17 years old.

Veronica was born in Trinidad. Her parents both completed Grade 10 and expected her to graduate from high school. Veronica did not recall her parents modeling writing. She remembered they read the newspaper occasionally. Her parents watched the news on television nightly and would sing or rhyme with her occasionally. Veronica's parents helped her with homework if she needed help but, because there were ten children in her family, Veronica got help from her older siblings more often. Veronica did not recall her parents reading to her or going many cultural outings. Their social engagements often involved trips to the beach.

Veronica is a receptionist. She graduated from high school and has a Pharmacy Technician Diploma. She is currently taking a six month online college program to learn counseling. She has not completed any on the job training or courses related to her work. Veronica watches about two hours of television a day; she usually watches Family Channel with her family. She uses the internet for approximately two hours a week for course work.

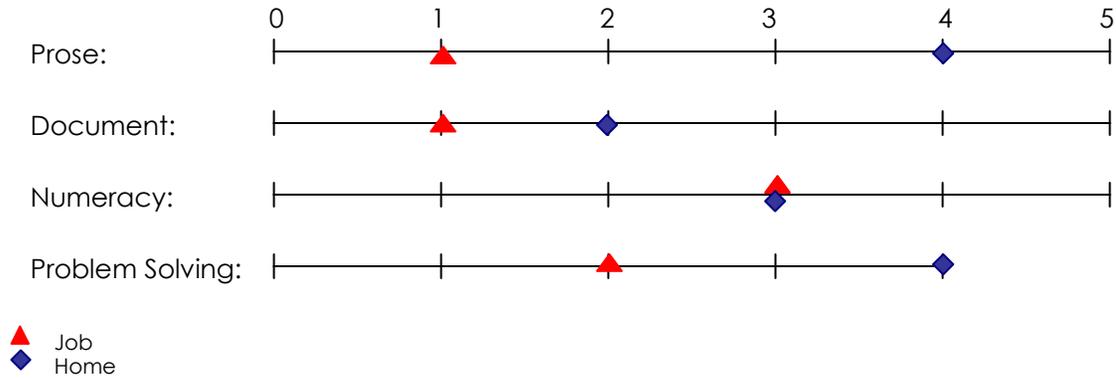
Veronica expects her children to get university degrees. She models writing by journaling, doing bills and writing for her courses. She also models reading. She reads the bible and other books almost every night. Veronica encourages "a lot of reading. I know it enhances other subjects as well." She occasionally sings at home and helps her children with homework if they need help.

The family has a lot of books and she reads to her children or they would read to her every night. Her children go to the public library approximately once a month and go to the school library a couple of times a week. They also "do devotions every night, listening and reading for half an hour."

Veronica's children primarily watch the Family Channel, usually for about two hours a day. They do not use the internet. Veronica says her children do not go on "cultural outings, really. Maybe once a year. They go more with school."

Category D—Low Skill

Alexandra



Alexandra has a two year old child.

Both of Alexandra's parents expected her to graduate from university. Her father has a university degree and her mother has a Ph.D. and currently works as a professor. Alexandra recalled both her parents modeling writing although she saw "mostly mom doing taxes, bills and writing letters." Reading was important to her family. She saw her father reading the newspaper every day and her family "had a library in our home. My parents were always reading to us and we'd read to them. They ordered lots of books and magazines. Reading was a big part of our growing up."

Her parents watched Walt Disney on Sundays. She did not recall them singing or rhyming with her. Alexandra's family "went to church every Sunday and Tuesday and Wednesday for other studies. I heard singing in church and reading along with the hymnal." She remembered having a public library card but she used her school's library more than the public library. Her parents sat down to do homework with her and read to her every night. Once a month, the family would go on outings like "snowshoeing, swimming, recreational things, the zoo. Not so much cultural."

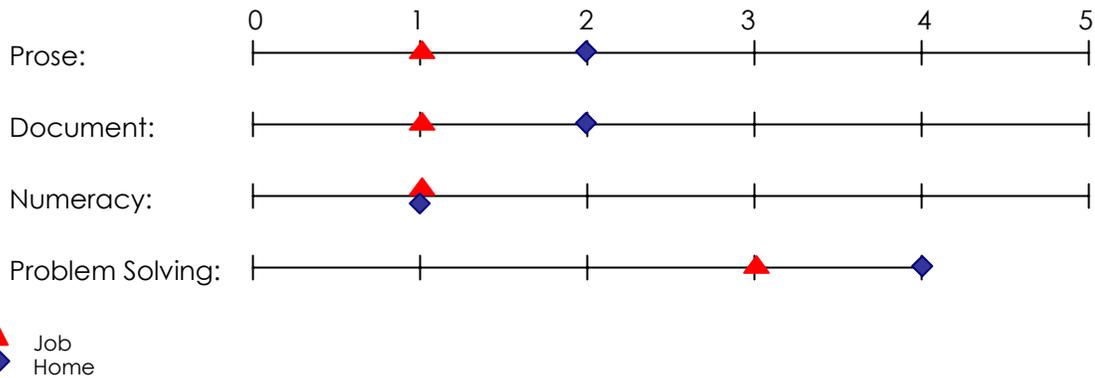
Alexandra works as a laborer. She completed high school and did one year of college in registered nursing. She has taken on the job training and has done forklift driver training as well as lots of safety meetings and courses. She watches about one hour of television a day and prefers to watch drama. She does not use the internet.

Alexandra expects her daughter to get a university degree. Alexandra did not report modeling writing a great deal although she does bills and taxes. Alexandra reads to her daughter more than once a day and sings nursery rhymes to her. They also do a lot of coloring together. Alexandra's daughter does not see her parents watching television. She has a lot of books and watches preschool programming for five to six hours a week. She does not use the internet.

Alexandra has taken her daughter to the museum, Art Gallery and TELUS World of Science. The family goes on outings twice a month. Alexandra is “passing on what I've learned from my parents but I'm trying to stay at my daughter's age level. My parents pushed a higher level of difficulty onto me and it was difficult.”



Tanya



Tara has an 11 year old and a 15 year old.

Tara's parents were from Cambodia. They were high school graduates and expected her to get a university degree. Her family came to Canada in 1983. Her parents passed away when she was 15 and she grew up with her siblings. She said, "I didn't learn a lot from my parents; we raised ourselves." Tara did not remember seeing her parents writing although her mother read the bible and her father read the newspaper daily. She recalled her parents watching the news on television just about every night. She did not remember them singing or rhyming with her. Tara said her "dad helped with homework but only if I had a problem and if my older brother couldn't help." She did not recall her parents reading to her. She did recreational activities and cultural festivities as a child but there was no public library where she grew up.

Tara is a line fitter. She graduated from high school in Cambodia and has English as a Second Language in Canada. She did not do any on the job training. She said, "They just put me to work and I figured it out." She has not done any professional development or courses. She watches about one and a half hours of television a day, primarily watching drama. She plays recreational games on the internet for approximately half an hour a week.

Tara expects her daughters to graduate from university. Tara does not model writing although she does read novels and cookbooks. The family watches television together. They do not sing or rhyme.

Reading is important to the family and they have a lot of books at home. Her daughters "have public library cards. We go every weekend. There's usually something on hold for my older daughter." Tara helps her "younger daughter with homework when she needs it and I check after she's done." She read to them every day when they were younger but stopped when they learned to read by themselves.

Her daughters bring books home from the school library every week. Her daughters watch about four hours of television a day, mostly watching youth cartoons. They watch more television on the weekends. They chat on the internet for approximately one hour a day. Tara used to go to the museum with her daughters once a month but "we stopped when the kids got older; they found it boring."

Appendix B

Interview Protocol



Family Literacy: The Next Generation

Interview Protocol

Pivotal Research has partnered with the Centre for Family Literacy in a project to research family literacy in the workplace. The objectives of the research are to measure the importance of literacy in various occupations and to measure the effect of support for family literacy in past, present and future generations. The results of the research will be used by the Centre for Family Literacy to make decisions on programming initiatives.

All data collected are confidential and no individual identifying information will be reported. All information you provide is protected under the *Freedom of Information and Protection of Privacy Act* and will not be shared with a third party. The interview should take between 20 and 30 minutes.

First, I'll give you a simple explanation of the different types and levels of literacy.

Prose literacy is the ability to understand and use information from texts, like news stories, brochures and instruction manuals.

Document literacy is the ability to find and use information in written materials such as job applications, payroll forms, transportation schedules, maps, tables and charts.

Numeracy is the ability to use math in a range of situations.

Problem solving is the ability to think or act towards a goal without a set procedure to follow.

1. First, can you tell me the level of *prose literacy* you require to do your job effectively?

What level of *prose literacy* do you use in your day-to-day activities outside of work?

What level of *document literacy* do you require to do your job effectively?

What level of *document literacy* do you use in your day-to-day activities outside of work?

What level of *numeracy* do you require to do your job effectively?

What level of *numeracy* do you use in your day-to-day activities outside of work?

What level of *problem solving* do you require to do your job effectively?

What level of *problem solving* do you use in your day-to-day activities outside of work?

2. I'd like you tell me how much emphasis your parents placed on literacy when you were growing up. For example:

- What were their expectations for your educational achievement?
- What is your parents' education level?
- Did you often see them read books or magazines? Did they do writing activities at home?
- Do you remember them sharing rhymes, songs or stories with you?
- Did they help with homework or read to you?
- Did your family make cultural or social outings such as going to the museum, art galleries or science centers?

3. Now I'd like some information about your current position.

- Can you tell me your level of education?
- What on-the-job training or experience do you have?
- Have you take any personal or professional development workshops, courses or seminars after you started working?
- On average, how much time would you say you spend watching TV or videos per day? What types of programming do you watch the most?
- Do you have a computer with internet access at home? How much time do you spend on the Internet per day? What do you use the Internet for primarily (e.g., email family or friends, internet banking, literature searches, shopping)?

4. Finally, I'd like you tell me what you do in your family to communicate the importance of literacy? For example:

- What are your expectations for your child's educational achievement?
- What types of literacy activities does your child see you involved with at home?
- Do you help with homework? Do you read bedtime stories or have your child read to you?
- Do you share rhymes, songs or stories with your child?
- Are books readily available at home? Does your child bring home books from his school's library? Does he have a public library card?
- How much time would you say your child watches TV or videos per day? What types of programming does he watch the most?
- Do you let your child access the Internet? How much time does he spend on the computer per day? Do you know what types of sites he visits?
- Does your family make cultural or social excursions such as to the museum, art galleries or science center?
-

Thank the respondent for completing the interview. Ask him/her to call if they have anything else to share.

Occupation

Employer

Interview Instructions:

Question 1: Share the table of levels of difficulty with respondent.

Question 2: Make sure parents' education level is recorded.

Question 3: Make sure questions about TV/video and Internet are recorded.

Question 4: Make sure questions about TV/video and Internet are recorded.

If respondent focuses on quality or quantity of public education or curriculum, redirect toward family literacy rather than education system.

If respondent has more than one child but different expectations for each child, make note of differences where applicable.



Levels of difficulty

LEVEL	PROSE	DOCUMENT	NUMERACY	PROBLEM-SOLVING
1	Find information in a short text	Enter information from personal knowledge into a document	Understand basic math such as counting, sorting	Perform concrete task with limited amount of reasoning; draw direct consequences
2	Compare information based on specified criteria; ignore implausible information	Identify information from different parts of a document	Identify and understand basic math concepts and estimations involving percents, fractions, simple measurements	Evaluate alternatives with well defined, explicit criteria; use step-by-step reasoning combining information from different sources
3	Match information to text; may require making basic inferences	Identify multiple pieces of information from two or more documents ignoring tables containing irrelevant information	Understand math information shown in symbols, maps, graphs and drawings; able to interpret proportions, data and statistics in text with distractors	Order several objectives according to criteria; solve a problem involving non-obvious or multiple constraints; reasoning is non-linear and requires coping with multi-dimensional or ill-defined goals
4	Make complex inferences from lengthy, complicated text and incorporate conditional information	Identify information in documents using multiple-feature matches; provide numerous responses and incorporate conditional information	Understand abstract math information from complex texts; use multiple steps to find solutions to problems requiring complex reasoning and interpretation skills such as working with formulas	Judge completeness, consistency, dependency among multiple criteria, explaining how solution was reached and why it is correct; reason using meta-perspective, taking into account entire system of problem solving states and possible solutions but criteria and goals must be inferred before beginning solution process
5	Find information in dense text with numerous distractors, making high level inferences or use specialized background knowledge	Search through complex text with multiple distractors and use specialized knowledge to make high level text-based inferences	Understand complex representations, abstract and formal math and statistical ideas	N/A

