

# An Analysis of the Readability of Elementary Level Books Concerning Native Canadian Indians

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Après avoir établi la nécessité de donner aux ouvrages romancés et non romancés un contenu adapté aux besoins d'identification des enfants indiens du Canada et aux connaissances à fournir à la fois à ces enfants et aux jeunes non indiens, on a effectué une analyse de la difficulté des ouvrages traitant de la culture des Indiens.

Vu le nombre grandissant d'ouvrages publiés récemment sur les Indiens du Canada, on a dû établir un système d'évaluation simple mais précis. Le graphe de lisibilité de Fry, modifié par celui-ci en 1973 pour inclure les noms propres, a semblé répondre à ces besoins et a été utilisé pour l'analyse. La méthode employée a été développée dans ce mémoire. Des appendices fournissent une liste des ouvrages sur les Indiens classés par genres et comprenant les légendes, les ouvrages romancés et les biographies.

One might expect conventional (provincially authorized or prescribed) social studies texts to provide considerable data on the history and culture of Native Canadian Indians.

Recent studies of social studies textbooks, however, indicate that these books are difficult for most of the children for which they are intended. Johnson and Vardian (1973) have reported on the readability of social studies texts recently published in the United States. The conclusion was reached that only some of the books were easy enough for average readers, with most books requiring readers to be above average, and none of the books appropriate in difficulty for the slow or low-achieving child.

In Canada, social studies texts authorized for use in British Columbia elementary schools were found to be difficult for any but the most gifted readers in Grades 4 and 5. Most of the Grade 6 books were noted to be too difficult. Only for Grade 7 were the authorized texts found to represent a range of difficulty sufficient for the range of student reading abilities to be expected in Grade 7 classes. There were, for example, several Grade 7 books at the Grade 5 readability level (appropriate to poor readers in Grade 7), books at the Grade 7 level (appropriate to average readers), and some more difficult books from Grade 8 to college level of difficulty that could be expected to provide a sufficient range of opportunity for above-average to very gifted readers in Grade 7 classrooms. (Pennock, 1974.)

In view of the results of the study of British Columbia elementary social studies texts, it seemed appropriate to extend the analysis to include a comprehensive sampling of such texts from across Canada. Preliminary results support the findings of the original study.

One of the challenges suggested to this writer by educators concerned with the difficulty of authorized texts is the quest to identify social studies material of more appropriate readability. Another concern is the need to provide fiction and non-fiction with content appropriate to the identification needs of Native Indian children and the information needs of both these children and non-Indian youngsters. It was felt that both these needs might be met in part by an analysis of the difficulty of recent trade (library) books about Native Indians.

A preliminary selection of books was made from titles suggested by fifty pre-service and experienced teachers enrolled in undergraduate reading education courses at the University of British Columbia. An attempt was made to include as many books as possible written by Canadians and/or published in Canada. Several books on Native Indians living in the United States have been included. While the claim cannot be made that the selection of books analyzed is complete or very comprehensive, it may be considered representative of books generally available concerning Native Peoples in North America.

Within the sample two main categories have been set forth — (1) fiction, including historical fiction; and (2) tales and legends, and history.

### **READABILITY ANALYSIS PROCEDURE**

Since the range of difficulty of this sample fell mainly between Grade 4 and college level, with most of the books at the Grade 5 to 8 level, the Fry (1973) readability procedure was employed. Fry's procedure has been used previously in rating a variety of reading materials including social studies texts (Johnson & Vardian, 1973) where estimates obtained through its use correlated closely with other measures such as the Dale-Chall, Flesch, and Spache. There appears, however, to have been no reported research on the validity of readability formulas applied to materials to be read by Native Indians. Since the Fry procedure makes use of basic linguistic variables (word and sentence length) and has been modified to take into account proper nouns, as described below, it was assumed for the purposes of this study to be the most appropriate readability procedure available at this time. In Fry's (1968) early presentation of his readability procedure, he suggested that proper nouns be excluded from consideration. Recently, however, Fry (1973) has directed that proper nouns be included in the analysis, in counting number of syllables per word and number of sentences per hundred words. This modification has been implemented in the present study and seems to be a logical improvement on the former procedure, in

view of the numerous polysyllabic proper nouns found in these books, which seem to add to their difficulty. It certainly cannot be assumed that such words, even if occasionally occurring in children's listening-understanding vocabulary, are perceived visually without considerable difficulty.

Six samples were obtained from each book, three by each of two graduate students. As suggested by Fry (1973), one random sample was taken from the first third of each book, one random sample from the middle pages of each book, and one random sample from the last third of each book. Where discrepancies or high variability (more than three grade levels within a book) appeared, additional random samples were taken and verified by the author.

### FINDINGS

Data presented in the Appendix include standard bibliographic information as well as the range of readability estimates and the mean or average difficulty of each book. The range should be taken into account, as well as the mean, in selecting appropriate-level books for children. The mean, in that it is an average, may mask the fact that there are many passages of extreme difficulty for a child, notwithstanding the fact that the mean level reported seems appropriate.

It will be noted that data are presented first for Fiction and then for Legends/History. Within each section books have been arranged according to difficulty rather than in alphabetical order by author. In this format books suited in difficulty to a particular child or group of children can be quickly found.

### CONCLUSIONS

Within the analyzed sample of books on Native Peoples there seemed to be a sufficient range of difficulty to provide appropriate-level reading material for many children in the elementary school. It will be noted, for example, that there are nine books with mean difficulties at the Grade 3 or 4 level. This is in contrast to the authorized texts used in British Columbia (Pennock, 1974a, 1974b) where of the seven books for Grade 4, the easiest had a mean of Grade 6, with two at the 7 level and four at the Grade 8 level of difficulty! There are also seven books on Native Indians at the Grade 5 level and twenty-five at the 6 level which might appropriately be used with above-average to gifted readers in Grade 4 and average to above-average readers in Grade 5. In contrast, the *easiest* Grade 5 social studies text analyzed (Pennock, 1974a, 1974b) had a mean readability of Grade 8.

It can be concluded that trade (library) books concerning Native Peoples are available at levels more appropriate to the reading competencies to be expected of children in the elementary school.

There is a continuing need for the identification of additional suitable

books at the Grade 2 and Grade 3 levels of difficulty that could be read with ease and enjoyment by an important number of children in Grades 4 and 5.

### REFERENCE NOTE

Fry, E. Letter to the Author, September 20, 1973.

### REFERENCES

- Fry, E. A readability formula that saves time: Readability graph. *Journal of Reading*, 1968, 11, 513-516.
- Johnson, R. E., & Vardian, E. B. Reading, readability and social studies. *The Reading Teacher*, 1973, 26, 483-488.
- Pennock, C. D. An analysis of the readability of intermediate level social studies textbooks. In L. O. Ollila, E. G. Summers, J. Downing, & P. Viel (Eds.), *Learning to read/Reading to learn: Proceedings of the Transmountain Far West Regional Reading Conference*, Victoria, B.C., 1974. (a)
- Pennock, C. D. Social studies textbooks in Grades 4 through 7: Are they really too hard? *Exploration: Journal of the British Columbia Social Studies Teachers' Association*, 1974, 14, 68-73. (b)

### APPENDIX

#### Readability of Representative Books about Native Peoples in North America

Book (author, title, publisher)	Readability		
	Length	Range	Mean
<b>Fiction</b>			
1. McNamee, J. <i>Florencia Bay</i> Toronto: New Authors, 1960	183	3-4	3
2. Blades, A. <i>A Boy of Tache</i> Toronto: Tundra, 1973	18	2-6	3
3. Leitch, A. <i>The Great Canoe</i> Toronto: Macmillan, 1962	115	3-6	5
4. Harris, C. <i>Forbidden Frontier</i> New York: Atheneum, 1968	189	4-6	5
5. Mackenzie, J. <i>River of Stars</i> Toronto: McClelland and Stewart, 1971	153	3-7	5
6. Cutt, T. <i>Carry My Bones Northwest</i> Toronto: Collins, 1973	144	3-7	6
7. Bonham, F. <i>Chief</i> New York: Dutton, 1971	215	4-7	6
8. Sharp, E. <i>Nkwala</i> Boston: Little, Brown, 1958	109	4-9	6
9. Harris, C. <i>Raven's Cry</i> Toronto: McClelland and Stewart, 1966	193	6-7	7

Book (author, title, publisher)	Readability		
	Length	Range	Mean
Fiction (cont.)			
10. Anderson, D. <i>Blood Brothers</i> Toronto: Macmillan, 1967	136	6-7	7
11. Anderson, D. <i>Slave of the Haida</i> Toronto, Macmillan, 1974	166	7	7
12. Mowat, F. <i>Lost in the Barrens</i> Boston: Little, Brown, 1956	244	6-8	7
13. Lampman, E. <i>Cayuse Courage</i> Boston: Harcourt, 1970	183	6-8	7
14. Haig-Brown, R. <i>The Whale People</i> London: Collins, 1962	173	7-8	7
15. Cutt, T. <i>On the Trail of Long Tom</i> Toronto: Collins, 1970	189	6-9	8
16. Kjelgaard, J. <i>Wolf Brothers</i> New York: Holiday House, 1957	188	7-9	8
17. Ashlee, E. <i>Night of the Sasquatch</i> Toronto: Holt, 1973	182	6-10	8
18. Craven, M. <i>I Heard the Owl Call My Name</i> Toronto: Clark, Irwin, 1967	135	6-10	8
Legends and history			
1. Desbarats, P. <i>What They Used to Tell About</i> Toronto: McClelland and Stewart, 1969	91	2-5	3
2. Squire, R. <i>Wizards and Wampum</i> Toronto: Abelard-Schuman, 1972	122	2-6	4
3. Melzack, R. <i>Raven Creator of the World</i> Toronto: McClelland and Stewart, 1970	91	3-6	4
4. Cleaver, E. <i>The Mountain Goats of Temlahan</i> Toronto: Oxford, 1969	32	3-6	4
5. Newell, E. <i>Rescue of the Sun</i> New York: Whitman, 1970	144	3-6	4
6. Fraser, F. <i>The Wind Along the River</i> Toronto: Macmillan, 1968	83	4-5	5
7. Leekley, T. <i>The World of Manabozho</i> New York: Vanguard, 1965	128	4-6	5
8. Fisher, O., & C. Tyner. <i>Totem, Tipi and Pumpline</i> Toronto: Dent, 1955	262	3-6	5
9. Kohn, B. <i>Talking Leaves: The Story of Sequoyah</i> New York: Hawthorn, 1969	26	3-7	5
10. Hill, K. <i>Badger, the Mischief Maker</i> Toronto: McClelland and Stewart, 1965	95	4-7	6
11. Cleaver, E. <i>How Summer Came to Canada</i> Toronto: Oxford, 1969	32	4-7	6

Book (author, title, publisher)	Readability		
	Length	Range	Mean
Legends and history (cont.)			
12. Gilham, C. <i>Beyond the Clapping Mountains</i> Toronto: Macmillan, 1960.	134	4-7	6
13. Boulanger, T. <i>An Indian Remembers</i> New York: Penguin, 1971	85	5-7	6
14. Fraser, F. <i>The Bear Who Stole the Chinook</i> Toronto: Macmillan, 1965	72	5-7	6
15. Harris, C. <i>Once More upon a Totem</i> Toronto: McClelland and Stewart, 1973	95	5-7	6
16. Bleeker, S. <i>The Chippewa Indians</i> New York: Morrow, 1944	157	6-7	6
17. Martin, F. <i>Nine Tales of Coyote</i> New York: Harper and Row, 1940	60	6-7	6
18. Caswell, H. <i>Shadows from the Singing House</i> Edmonton: Hurtig, 1972	108	6-7	6
19. Ayre, R. <i>Sketco the Raven</i> Toronto: Macmillan, 1961	183	4-8	6
20. Grindley, M. <i>The Story of the Haida</i> New York: Putnam's, 1972	63	5-8	7
21. Gooderham, K. (Ed.) <i>I am an Indian</i> Toronto: Dent, 1969	196	6-7	7
22. Bleeker, S. <i>The Sea Hunters</i> New York: Morrow, 1951	152	6-7	7
23. Hulpach, V. <i>American Indian Tales and Legends</i> London: Golden Pleasure, 1965	237	6-7	7
24. Houston, J. <i>Eagle Mask</i> Toronto: Longmans, 1966	64	7	7
25. MacMillan, C. <i>Glooskap's Country</i> Toronto: Oxford, 1962	273	7	7
26. Reid, D. <i>Tales of Manabozho</i> Toronto: Oxford, 1963	128	6-8	7
27. Clark, E. <i>Indian Legends of Canada</i> Toronto: McClelland and Stewart, 1960	165	6-9	7
28. Houston, J. <i>The White Archer</i> Toronto: Longmans, 1967	95	7-8	8
29. Diamond, J. <i>The Corn Goddess</i> Ottawa: National Museum, 1960	77	7-8	8
30. Clutesi, G. <i>Potlatch</i> Vancouver: Gray, 1969	188	7-10	8
31. Brindze, R. <i>The Story of the Totem</i> New York: Vanguard, 1951	64	7-10	9
32. Carter, A. <i>Somewhere Between</i> Vancouver: Agency Press, 1966	73	9-10	9