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the most pertinent variables to achievement. The paper focuses on school and
classroom libraries, their description and use, and on classroom teacher's
practices as they relate to library use. Variables examined include:
assessing students' reading interests; the number of books, magazines and
newspapers in the school and classroom library; frequency of borrowing books;
visiting the library; and the amount of time spent teaching narrative,
expository, and document text types. In many countries, there are clearly
great literacy needs and very limited library resources; yet in some
countries, very reasonable literacy achievement results are obtained even
without large expenditures. The data does suggest that countries with higher
per student expenditures do have more school and classroom libraries, that
students in classrooms that have access to school libraries achieve higher
than those who don't, and that students who have many books in their homes
achieve at higher levels than those who don't. The majority of the document
is comprised of data tables (15) and graphs. (Author/SWC)

THE RELATIONSHIP OF SCHOOL MATERIALS AND RESOURCES TO READING LITERACY: AN INTERNATIONAL PERSPECTIVE

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ABSTRACT

There is great interest in the effect of school resources on academic achievement, but it is seldom that an opportunity arises in which this relationship may be examined in an international milieu. This paper presents the types of resources available in the 27 countries participating in the International Association for the Evaluation of Educational Achievements (IEA) Reading Literacy Study, and explores the relationship of the most pertinent variables to achievement. More particularly, the focus is on school and classroom libraries, their description and use, and on classroom teacher's practices as they relate to library use.

In my fourth year of public school teaching I was appointed as Head Teacher of a three-room rural school with about 100 students. In this position I was responsible for all aspects of running the school including spending a small budget on materials, supplies, and books. A locked hallway cupboard approximately 30 inches by 30 inches by 12 inches deep contained what was termed "the library" and it had traditionally been accessible to students at a few designated times for "checking out" books, so I was told. Needless to say, I found the situation appalling, and two years later when graduate school beckoned, I was pleased to leave the school with three classroom libraries each approximately three times the size of the original. How many books were in those spaces do you suppose?

Many years later having earned two graduate degrees in Reading Education I became Head of the Department of Language Education at the University of British Columbia, and what should I find located there but a School Librarianship program under my supervision! And when I became the Research Coordinator for the BC component of the IEA Reading Literacy Study in the early '90s, and in this capacity gained access to information from 32 different countries, numbers of "books" again took on a new significance. While "literacy" was the focus of attention in the study, I casually mentioned this wealth of data regarding resources to Anne Clyde who indicated a keen interest in it, and encouraged me to tease out those aspects of interest to librarians. And that brings us to the topic of this paper and to my presentation at the IASL-ATLC Conference in Vancouver.

You will have noticed that the word "books" was used inside quotation marks since it oversimplifies what libraries are all about, but it is the stereotyped symbol of libraries in common use. As I was writing this article the University of British Columbia opened a new library building and celebrated its faculty authors; the *Vancouver Sun* headline read "It's a big week for books at UBC." Therefore it is with "books" and "magazines" that I wish to begin my story; then we will move to the uses of school and classroom libraries; then to teachers' practices; and finally we will examine some vignettes relating various variables with achievement. This approach is supported by the type of data gathered as part of the IEA Reading Literacy Study of 1991and first reported in *How in the world do students read?* (Elley, 1992).

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THE IEA READING LITERACY STUDY

Before proceeding it is necessary to sketch in some of the details of the study in order to contextualize the data. In 1990-91 about 210,000 students and over 10,000 teachers from 32 countries (more correctly jurisdictions) participated in the study of reading literacy sponsored by the International Association for the Evaluation of Educational Achievement, an organization based in The Hague, that conducts international research in many aspects of education. The general purpose was to show how well nine-year-olds (referred to as Population A) and 14-year-olds (referred to as Population B) read, and to identify which student, teacher, and school attributes were related to the development of literacy. While 32 jurisdictions participated not all did so at both levels and hence when dealing with Population A we have only 27 countries. For a variety of reasons, the age criteria resulted in approximately half the countries testing in Grades 3 and 8, and the other half in Grades 4 and 9, and one country (New Zealand) tested students in Grades 5 and 10. Various attempts have been made to address this dilemma since it has a potential impact on the interpretation of the results. The term "reading literacy" was coined for this study and means "the ability to understand and use those written language forms required by society and/or valued by the individual." The focus was on material commonly found in the home, school, the community, and the workplace in the participating countries. Students responded to three types of texts, or domains, which were referred to as narrative, expository, and document. For the 9-year-olds a test of word recognition was included in order to check whether weaknesses in comprehension were related to the inability to decode highly familiar words. Additionally three questionnaires were administered. One was given to students and asked about personal information and interests, details about home, about reading habits, about homework, and about the reading instruction they were receiving. A second was given to teachers and it inquired about their educational background, about the class being tested, about teaching activities, about aims of reading instruction, about the classroom and school libraries, and about school organization. The third questionnaire asked principals about their training, about community resources, the school library and resources, about instructional time, and about the principal's role. All instruments had input from representatives of the participating jurisdictions, a steering committee oversaw the process, and pilot studies in most countries preceded the formation of the final instruments. The international data is aggregated at the school level and most countries sampled approximately 150 schools (range 70-298; mean 156); samples were weighted to assure the desired level of accuracy.

Clearly this study has produced a wealth of information which cannot be reported within the parameters of this presentation, and therefore the emphasis will be on the nine-year-olds (Population A) which are typically in grade three or four in most countries. Details of a number of aspects of the IEA study have been reported elsewhere (Froese, 1995a; Froese, 1995b).

SCHOOL AND CLASSROOM LIBRARIES

Before tackling the issue of library size it seemed important to establish whether schools had libraries since a range of countries from economically poor to well-off participated in the study. Further, students came from small rural areas as well as large urban ones. The relevant geographic information is presented graphically in Table 1 and 2.

Table 1 - Percentage of Schools Having Libraries & Classrooms Having Libraries & Achievement

IEA Reading Literacy Study, 9-year-olds
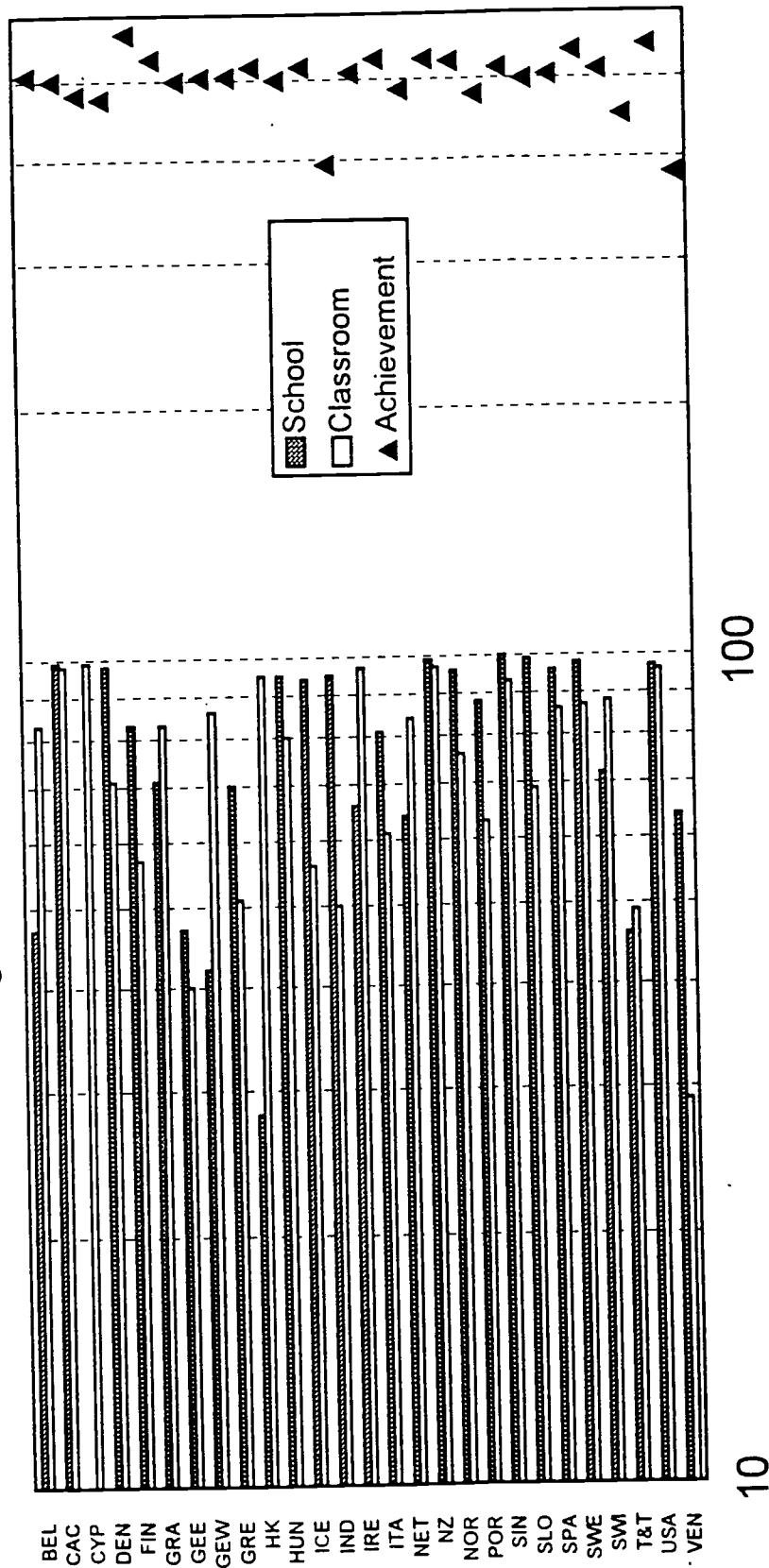
Legend: ▨ School ☐ Classroom ▲ Achievement

X-axis: Percentage (10 ... 100)

Y-axis categories: BEL, CAC, CYP, DEN, FIN, GRA, GEE, GEW, GRE, HK, HUN, ICE, IND, IRE, ITA, NET, NZ, NOR, POR, SIN, SLO, SPA, SWE, SWM, T&T, USA, VEN

	BEL	CAC	CYP	DEN	FIN	GRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SWM	T&T	USA	VEN
School	47	99	0	98	83	71	47	42	70	28	95	94	95	66	81	64	99	96	88	100	99	96	98	72	46	97	64
Classroom	83	98	99	71	57	83	40	86	51	95	80	56	50	97	61	84	97	76	63	93	69	86	87	88	49	96	29
Achievement	507	500	481	475	569	531	499	503	504	517	499	518	394	509	529	485	528	524	478	515	498	504	539	511	451	547	383

Table 2 - Type of Community Served by School

IEA Reading Literacy Study, 9-year-olds

Percentage

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SM	T&T	USA	VEN
Village or Rural	42	13	33	38	44	38	29	35	27	9	42	10	79	36	46	61	19	30	73	0	36	16	46	57	61	19	14
Small Town	26	28	13	12	26	40	50	31	16	15	26	11	9	18	27	26	20	43	12	0	29	36	28	10	25	21	12
Large Town	16	41	9	23	17	19	11	22	41	21	18	46	6	26	20	9	18	26	9	0	18	36	22	16	13	42	37
City of 1M+	16	12	44	25	12	3	8	5	15	56	14	33	6	18	4	3	12	1	6	100	18	12	4	17	1	17	35

A careful study of the data in Table 2 indicates that, for example, in six countries approximately half of the schools are "village or rural" in location (Indonesia, Italy, Netherlands, Portugal, Sweden, Switzerland, Trinidad & Tobago), whereas only two jurisdictions (Hong Kong, Singapore) are primarily urban "city of 1M or more". The majority of countries have half or more of their schools in "village or rural" or "small town" settings. This information may assist in understanding the data with respect to book holdings.

According to teachers' estimates (see Table 1) about half the countries have school libraries in virtually every school (e.g. over 90%); on the other hand in six countries less than half the schools have school libraries (the exception is Cyprus which reports all books at the classroom level). However, the presence of a school library is only part of the picture since the size of the collection is the better indicator of resources, and that is discussed under the next heading. Only in seven countries are classroom libraries found in virtually all schools (e.g., over 90%) although in most countries over half the schools have classroom libraries with the exception of Venezuela in which only 29% of schools have them.

It is also instructive to look at the library visitation frequency (Table 3) and the percentage students borrowing books from school and classroom libraries (Table 4). In approximately half the countries most students (90%+) borrow books from the school library (in Cyprus this applies to the classroom level library since it does not report school libraries). And the use of classroom level libraries is considerably less, although their real use may be hidden by this statistic: that is, they are used for classroom reading and these books are not necessarily taken out. According to the reports of teachers (see Table 3), only about one-third of 9-year-old students visit school libraries at least once per week, and a very small percentage visit the library more frequently. Even more discouraging is the percentage of students "hardly ever" visiting the school library—25% averaged over all countries, but over 30% in 11 countries!

SIZE OF SCHOOL AND CLASSROOM LIBRARIES

Estimating the number of books or magazines in a school or classroom library is not an easy matter as it turns out. Such information was requested of teachers and of principals; teachers were asked to select a range into which their school library fell (e.g. increments of 20 to a maximum of "100 or more"), principals to estimate the number of volumes. This information is presented in Tables 5, 6 and 7.

In an attempt to further understand the relationship of library size and socioeconomic variables, the top 10 and the bottom 10 countries on the Composite Development Index (CDI) were analyzed. This index, similar to the Human Development Index was developed for the IEA study and consists of six components—Gross National Product per capita, public expenditure per student, life expectancy, percent low birth weight, newspapers per 1000 population, and percent of adult literacy--indicators of economy, health, and literacy. Table 8 presents the 10 highest ranked countries on the CDI--Switzerland, Sweden, Norway, Iceland, Finland, United States, Canada (BC), Netherlands, West Germany (this study was initiated before Germany's reunification), and Denmark, and the 10 lowest ranking countries in the study-- Indonesia, Venezuela, Portugal, Hungary, Trinidad & Tobago, Greece, Cyprus, Singapore, Spain, and Hong Kong, along with the expenditures per student in terms of US dollars and the percentage of schools having school and classroom libraries.

In general there is a positive relationship in the percentage of schools having school and classroom libraries and expenditures per student, especially when the highest and the lowest countries on the CDI Index are compared. The average expenditure for the highest ranking countries is US$ 3,964 whereas the average for the lowest ten countries is US$ 773; the average number of books per school library is 3,426 for the top schools and 1,637 for the others. However there are a few exceptions to the generalization since in Spain, Singapore, and Hungary relatively high levels of libraries are present in spite of lower expenditures per student.

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Table 3 - Percentage Visiting School Library

IEA Reading Literacy Study, 9-year-olds
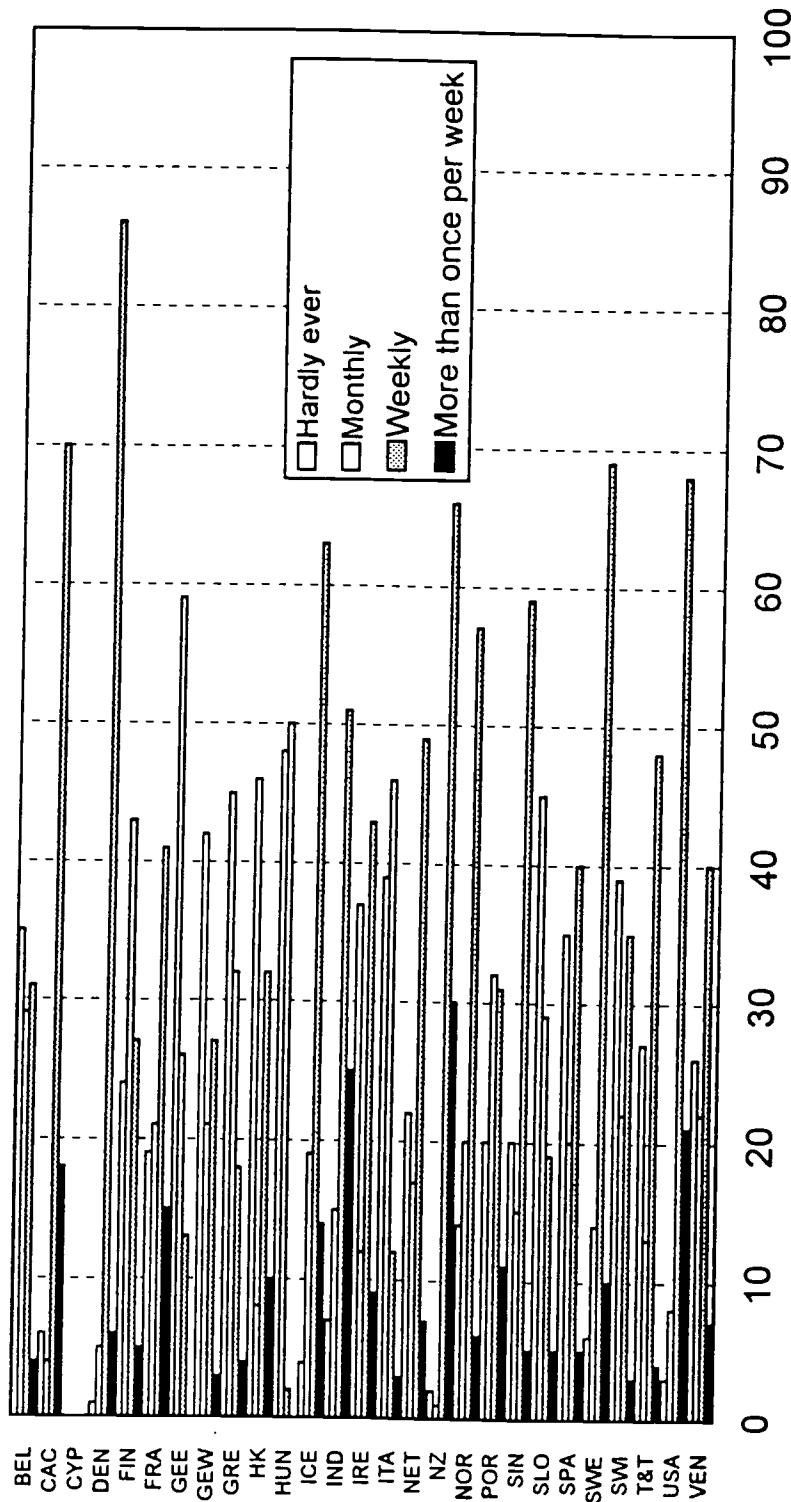
	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SWI	T&T	USA	VEN
Hardly ever	35	6	0	1	24	19	59	42	45	46	48	4	7	37	39	22	2	14	20	20	45	35	6	39	27	3	26
Monthly	29	4	0	5	43	21	26	21	32	8	50	19	15	12	46	17	1	20	32	15	29	20	14	22	13	8	22
Weekly	31	70	0	86	27	41	13	27	18	32	2	63	51	43	12	49	66	57	31	59	19	40	69	35	48	68	40
More than once per week	4	18	0	6	5	15	0	3	4	10	0	14	25	9	3	7	30	6	11	5	5	5	10	3	4	21	7

Percentage

Table 4 - Percentage Borrowing Books from School Libraries & Classroom Libraries

IEA Reading Literacy Study, 9-year-olds
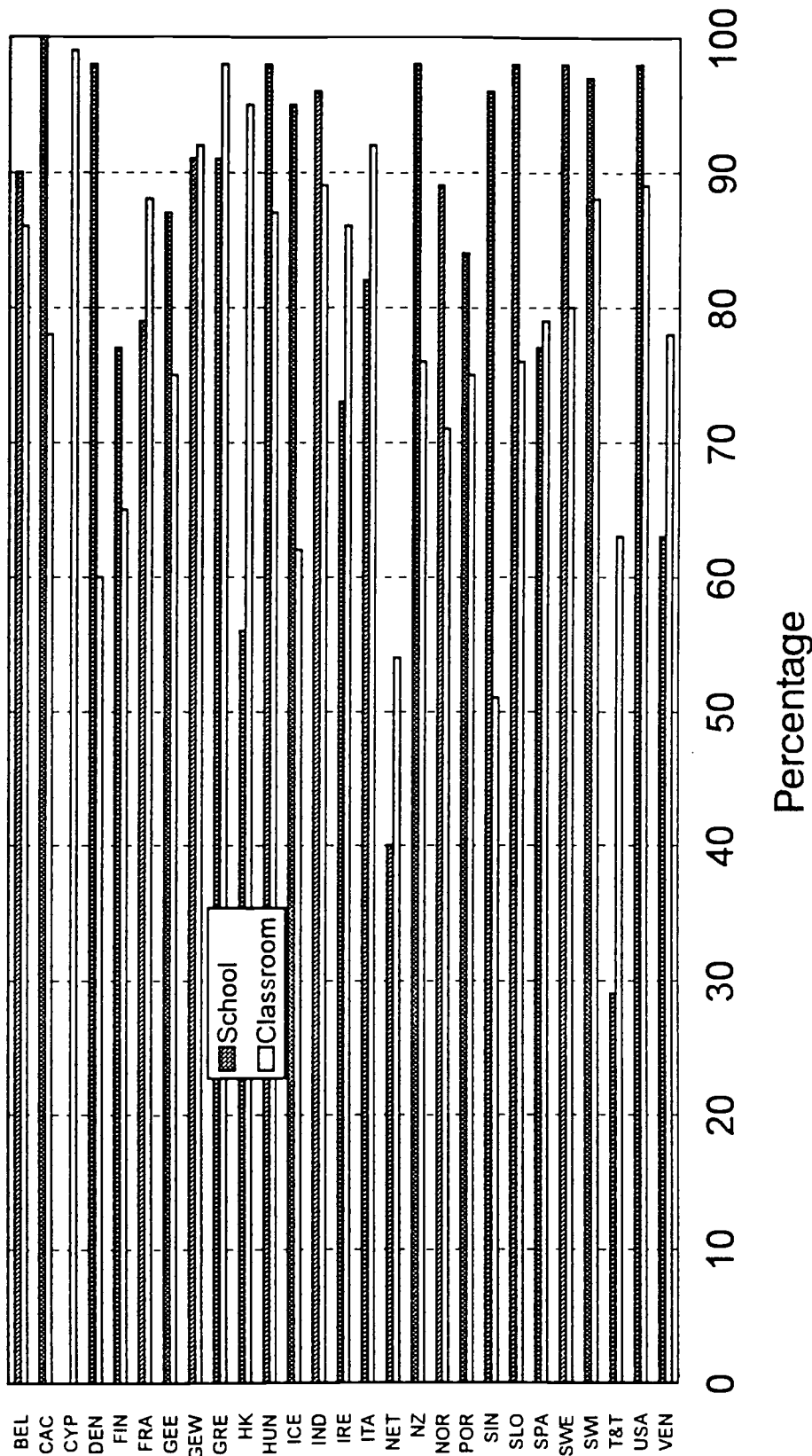
Percentage

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SWI	T&T	USA	VEN
School	90	100	0	98	77	79	87	91	91	56	98	95	96	73	82	40	98	89	84	96	98	77	98	97	29	98	63
Classroom	86	78	99	60	65	88	75	92	98	95	87	62	89	86	92	54	76	71	75	51	76	79	80	88	63	89	78

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Table 5 - Books in School Library

IEA Reading Literacy Study, 9-year-olds

Legend:
Percentage
- Up to 40
- 41-80
- 81-100+

Country labels (vertical axis): BEL, CAC, CYP, DEN, FIN, FRA, GEE, GEW, GRE, HK, HUN, ICE, IND, IRE, ITA, NET, NZ, NOR, POR, SIN, SLO, SPA, SWE, SWI, T&T, USA, VEN

Number of Books

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA
Up to 40	35	17	45	67	57	26	87	50	69	3	91	71	52	25	63
41-80	36	33	41	27	31	32	9	34	26	13	18	22	8	38	21
81-100+	29	49	12	4	13	48	2	14	5	82	1	10	35	35	12

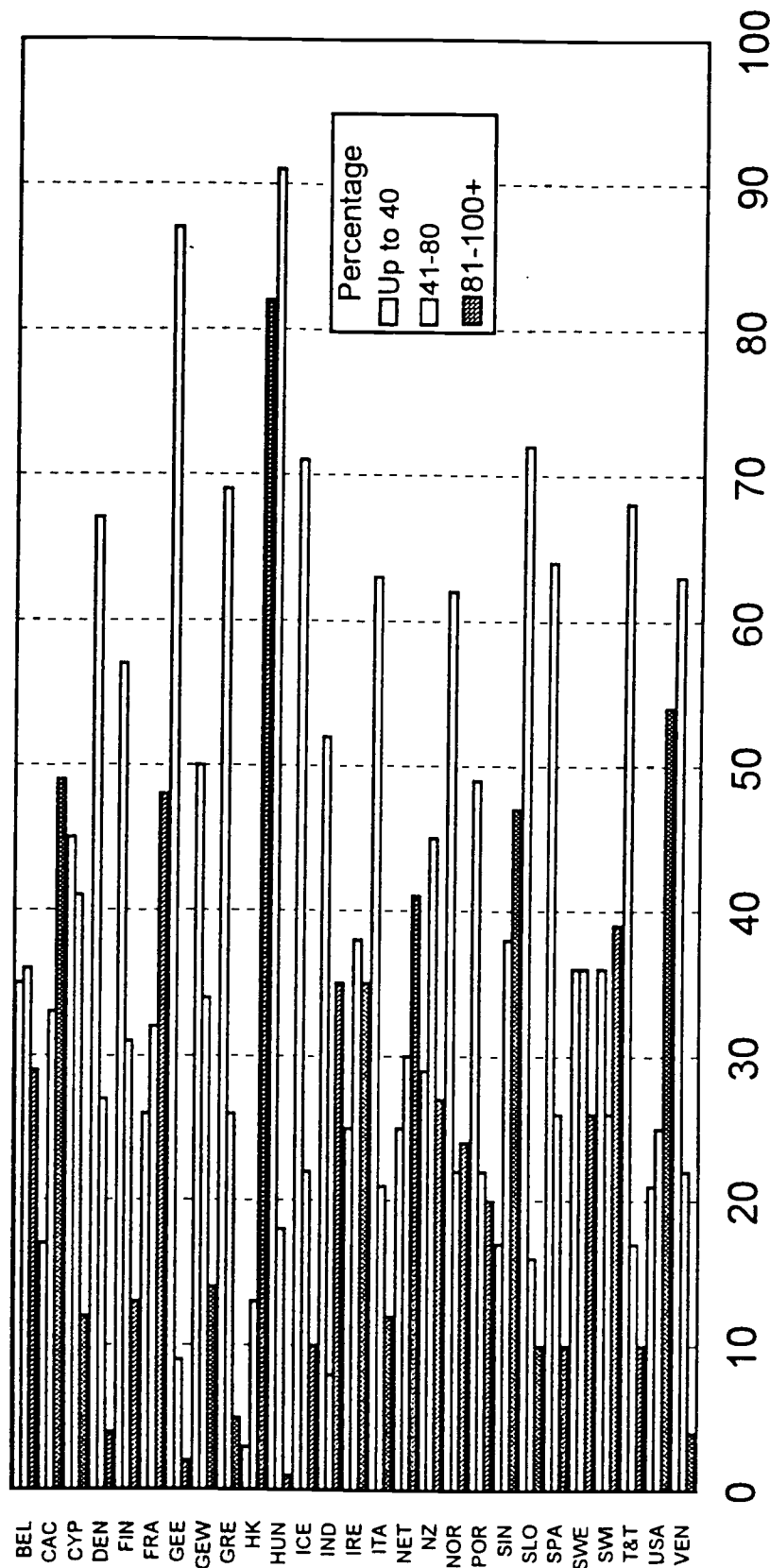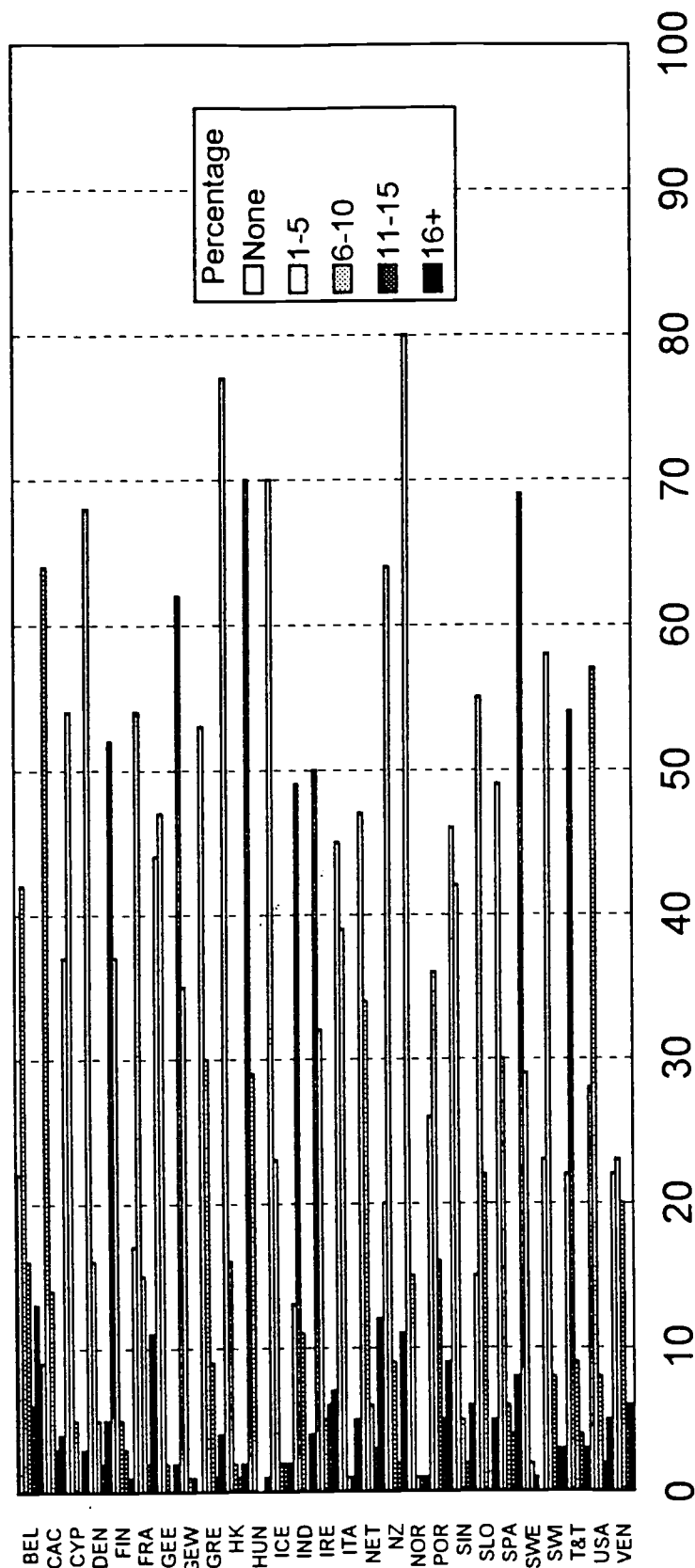|	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SW	T&T	USA	VEN
Up to 40	25	29	62	49	17	72	64	36	36	68	21	63
41-80	30	45	22	22	38	16	26	36	26	17	25	22
81-100+	41	27	24	20	47	10	10	26	39	10	54	4

Table 6 - Magazines and/or Newspapers in School Library

IEA Reading Literacy Study, 9-year-olds

Percentage in Category

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SWI	T&T	USA	VEN
None	22	9	37	68	52	17	44	62	53	77	70	70	13	50	45	47	20	80	26	46	15	49	69	23	22	28	22
1-5	42	64	54	16	37	54	47	35	30	16	29	23	49	32	39	34	64	15	36	42	55	30	29	58	54	57	23
6-10	16	14	5	5	5	15	2	1	9	2	0	2	11	5	1	6	9	1	16	5	22	6	2	8	9	8	20
11-15	6	3	0	2	3	2	0	1	1	1	0	2	0	6	1	3	2	1	5	2	0	4	1	3	4	2	6
16+	13	4	3	5	1	11	2	0	4	2	1	2	4	7	5	12	11	1	9	6	5	8	0	3	3	5	6

Table 7 - Principal's Estimate of Books in School Library

IEA Reading Literacy Study, 9-year-olds

Legend: ☐ Minimum ■ Median ☐ Maximum
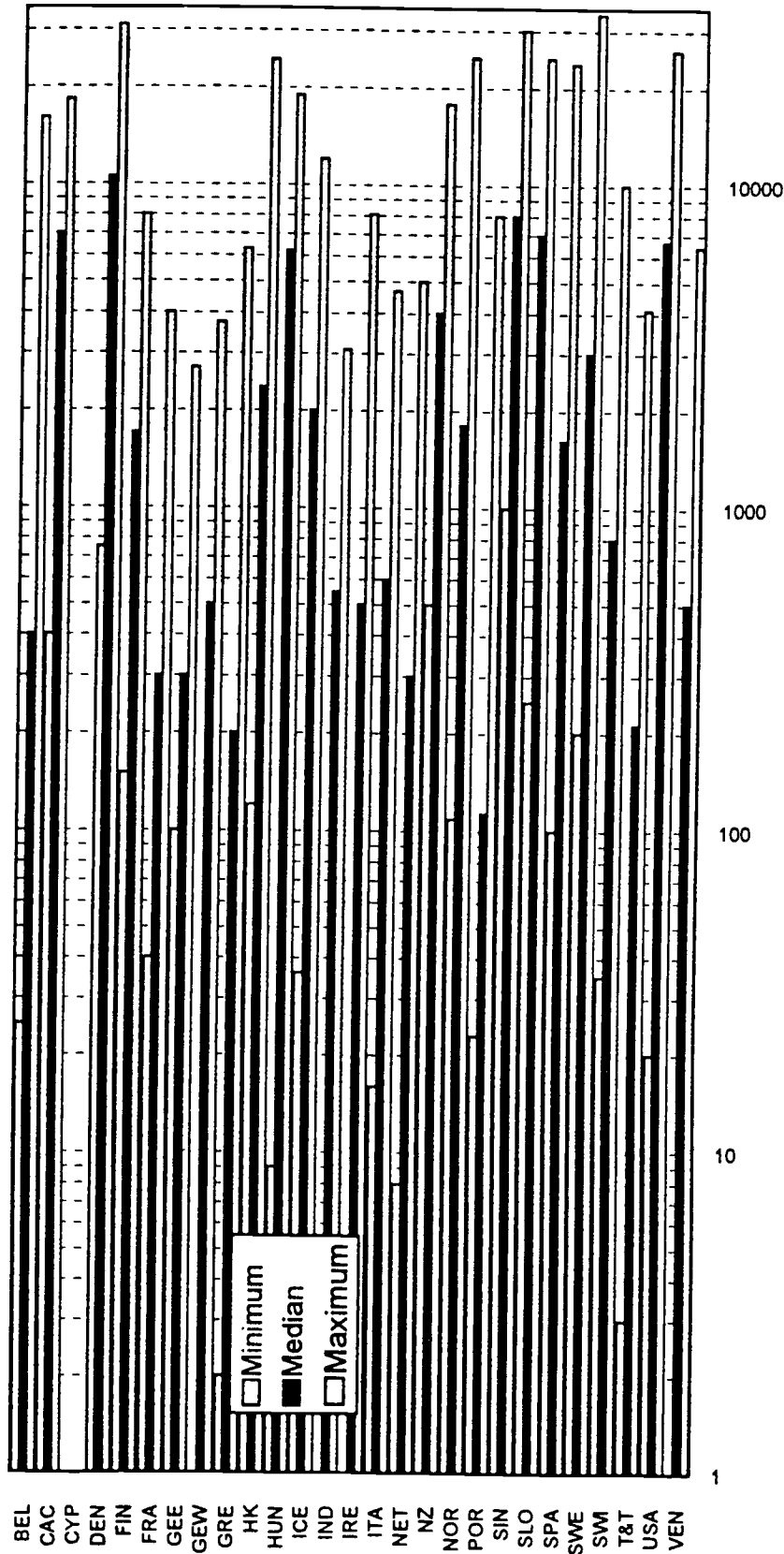
Number of Books (Logarithmic Scale)

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SW	T&T	USA	VEN
Minimum	25	400	0	750	150	40	100	0	2	120	9	36	0	0	16	8	500	109	23	1000	250	100	200	35	3	20	0
Median	400	7000	0	10500	1700	300	300	500	200	2350	6200	2000	548	500	600	300	4000	1800	113	8000	7000	1614	3000	800	212	6657	500
Maximum	16000	18263	0	31000	8000	4000	2700	3720	6300	24250	18865	12000	3083	8100	4668	5000	17750	24691	8000	30000	24600	23700	33814	10000	4100	26000	6430

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Table 8 - Books in School & Classroom Libraries & Education Expenditure per Student

10 Highest & 10 Lowest Countries on Composite Development Index

Legend: □ Books   ▲ $/Student
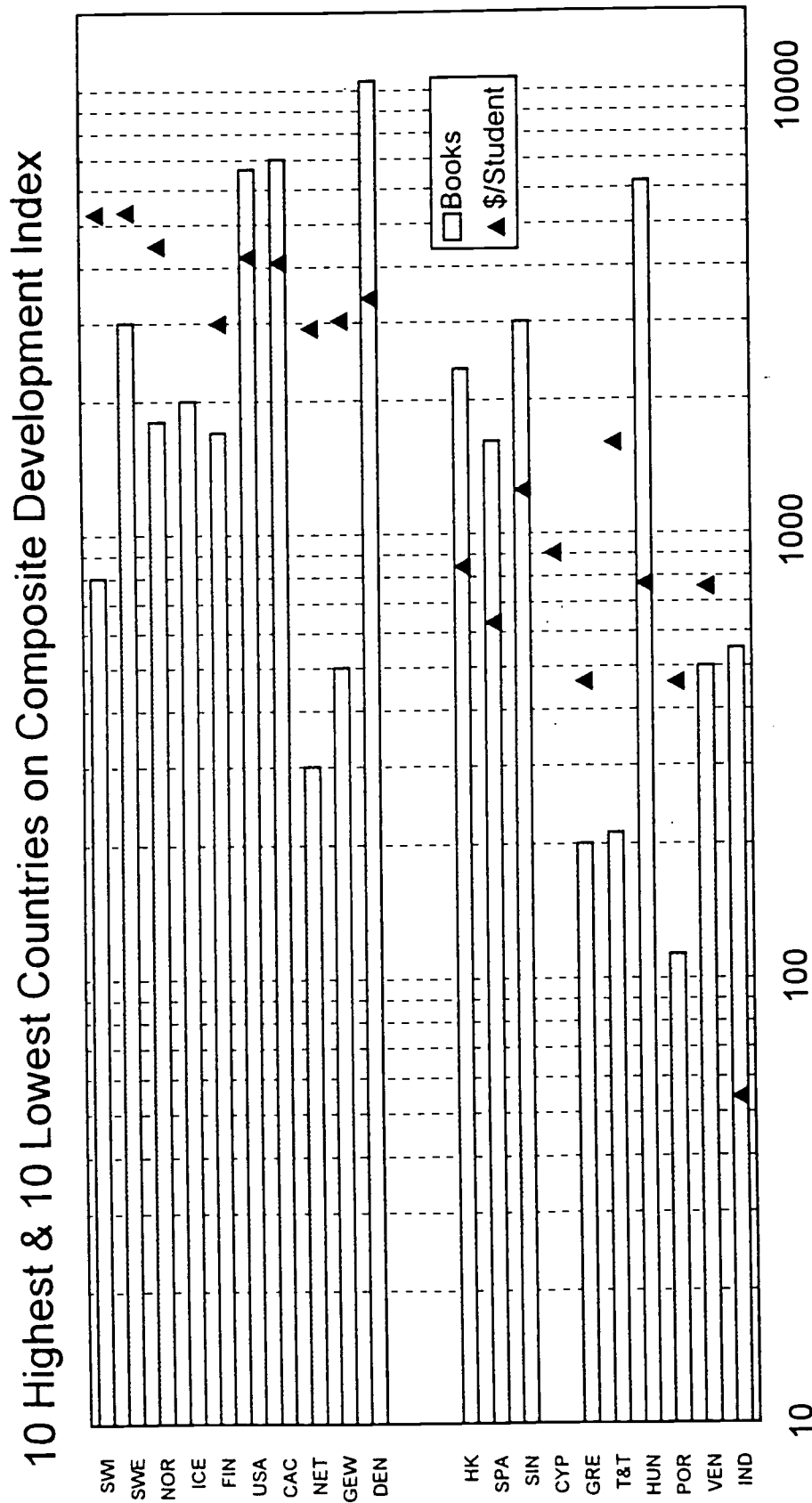
Books in School Library & US$/Student Expenditure

	SWI	SWE	NOR	ICE	FIN	USA	CAC	NET	GEW	DEN
Books	800	3000	1800	2000	1700	6657	7000	300	500	10500
$/Student	5274	5317	4462	0	2989	4220	4096	2910	3021	3390

	HK	SPA	SIN	CYP	GRE	T&T	HUN	POR	VEN	IND
Books	2350	1614	3000	0	200	212	6200	113	500	548
$/Student	843	630	1252	902	462	1600	768	459	756	54

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Teachers' estimates of books, magazines, and newspapers in the school library (see Table 5 & 6) are somewhat different from the estimates made by the school principal in Table 8. The percentage of libraries in the "100 or more" range is depressingly small—only nine countries report over 25% of schools in this category—however, it must be remembered that the majority of schools are in rural locations. According to these reports the majority of countries have school libraries in the under 60 book categories! The situation for magazines and newspapers is equally discouraging since most countries carry 5 or less per school library.

CLASSROOM PRACTICES BY TEACHERS

In this section we turn our attention to the classroom practices of teachers which are related to the uses of libraries. Since it is assumed that teachers of 9-year-olds know something about children's books, it is interesting to see if they read children's books and if they read to children in their classes—both good modelling behaviours. Table 9 documents the frequency of reading children's books, and it appears that in about one-half of the countries 30 percent or more teachers read children's books on a "weekly or more" basis, and in most countries they read them on a "monthly" basis. Table 10 shows that in nine countries over half the teachers read to children "daily," and in another 10 countries over half the teachers read to children "one or two times per week." Unfortunately in each country a small number of Grade 3 and 4 teachers "almost never" read to children.

It also seems important to know whether teachers instruct students in library skills and whether they encourage them to use the library. Table 11 indicates that in about one-half the countries one-third of the teachers provide library skill training "1 or 2 times per week" whereas in the majority of the countries about one-quarter of the teachers teach library skills on a "monthly" basis. A sizable proportion of teachers in most countries "almost never" teach library skills. In Table 12 we see the frequency with which teachers in each country encourage student to use the library. In over half the countries about one-third of the teachers encourage students to use the library "almost daily" and in most countries about one-third of the teachers encourage them "one or two times per week." The contrast between the information in the two tables seems to suggest that more "preaching" then "practicing" is occurring.

Table 13 indicates that teaching children to choose their own books is not rated highly as an aim of instruction. Only a small percentage of teachers in each country "agree" that this is an important aim, and a small proportion "disagree" that it is an important aim of instruction. Table 14 shows that assessing students' reading interests is something that over one-half of teachers in most countries do on a monthly basis, and another one-fourth of teachers in one-third the countries do on a "once per week or more " basis. The majority of teachers can be said to assess students' reading interests once per term or more frequently.

RELATIONSHIP BETWEEN ACHIEVEMENT AND SELECTED VARIABLE

In order to consider the relationship of reading literacy achievement to selected library variables it is necessary to have more specific data than was available to the writer with respect to all participating countries. Therefore we turn now to data relating to Canada (BC) which represents a jurisdiction exactly at the international mean of 500. Approximately 2,682 students in Grade 3 formed the sample for British Columbia with 157 classrooms participating (the weighted number used in calculation, however, was 142) and their reading literacy achievement was 502 for Narrative, 499 for Expository, and 500 for Documents (average 500 over three domains). A follow-up study indicated that had the test been given to Grade 4 students the mean score would have been 552, and if give to Grade 5 students 586. At the Grade 3 level about 10% of the teachers are male and about 90% female; English is the mother tongue of about 90% of the teachers and other languages represent about 10%. The average teacher has about four years of university training, and about 13 years of teaching experience.

300

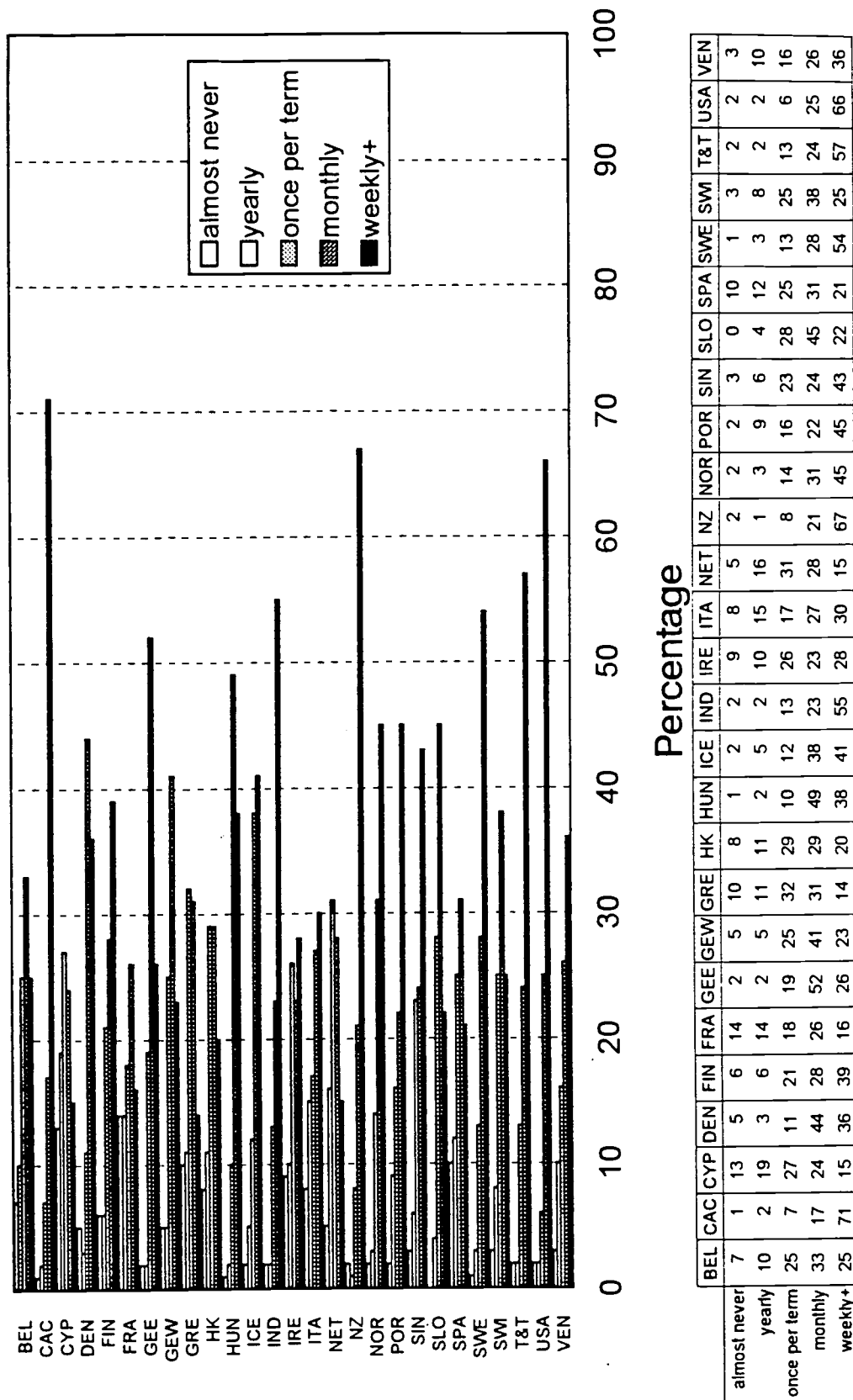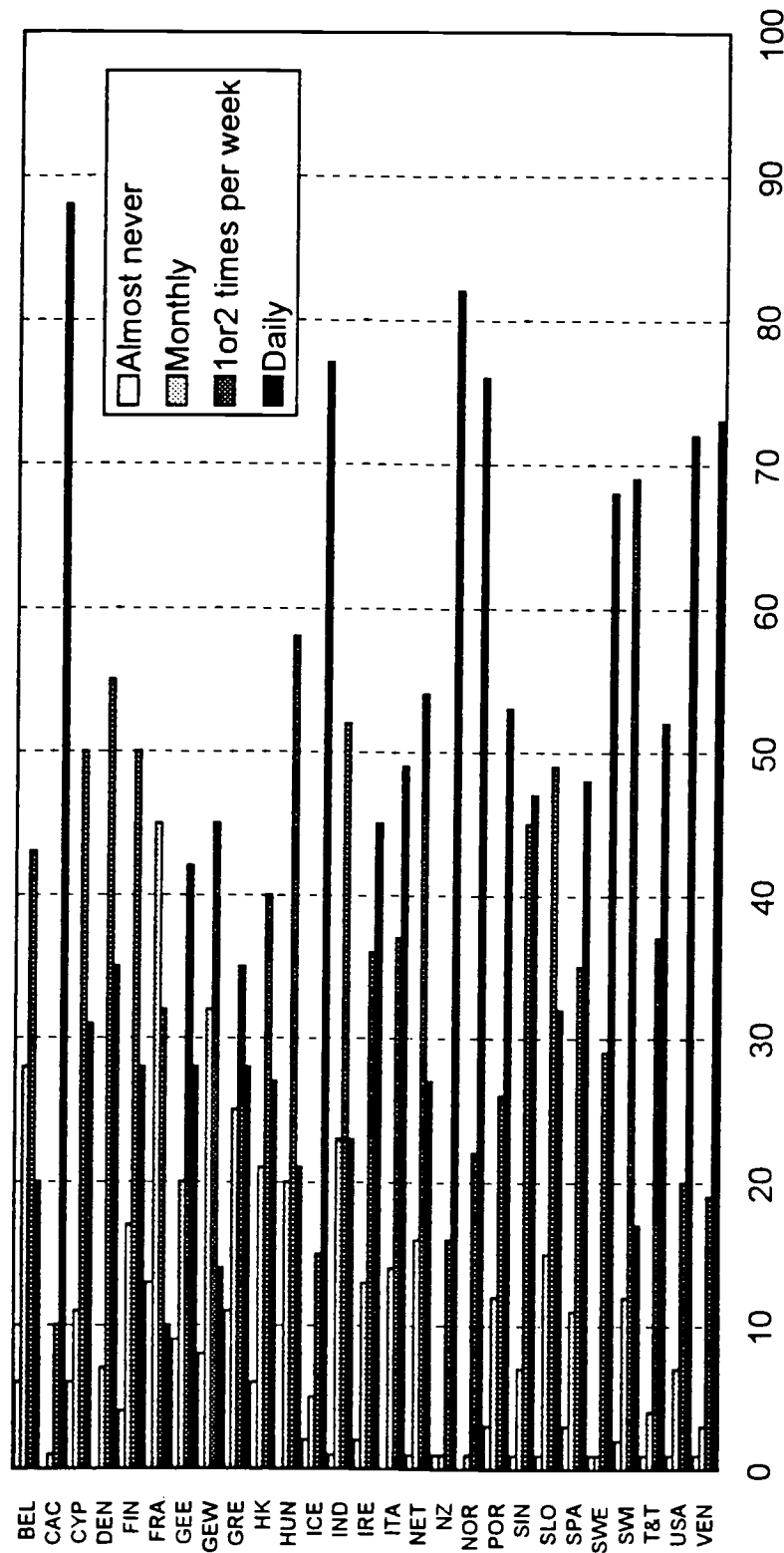# Table 9 - Teachers Reading Children's Books

IEA Reading Literacy Study, 9-year-olds

Legend: ☐ almost never | ☐ yearly | ▨ once per term | ▦ monthly | ■ weekly+

Percentage

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SWM	T&T	USA	VEN
almost never	7	1	13	5	6	14	2	5	10	8	1	2	2	9	8	5	2	2	2	3	0	10	1	3	2	2	3
yearly	10	2	19	3	6	14	2	5	11	11	2	5	2	10	15	16	1	3	9	6	4	12	3	8	2	2	10
once per term	25	7	27	11	21	18	19	25	32	29	10	12	13	26	17	31	8	14	16	23	28	25	13	25	13	6	16
monthly	33	17	24	44	28	26	52	41	31	29	49	38	23	23	27	28	21	31	22	24	45	31	28	38	24	25	26
weekly+	25	71	15	36	39	16	26	23	14	20	38	41	55	28	30	15	67	45	45	43	22	21	54	25	57	66	36

Table 10 - Teachers Reading Aloud to Children

IEA Reading Literacy Study, 9-year-olds

Legend: Almost never | Monthly | 1or2 times per week | Daily

Percentage

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SWI	T&T	USA	VEN
Almost never	6	0	6	0	4	13	9	8	11	6	0	2	1	2	0	1	1	0	3	1	1	3	1	2	1	1	1
Monthly	28	1	11	7	17	45	20	32	25	21	20	5	23	13	14	16	16	1	12	7	15	11	1	12	4	7	3
1or2 times per week	43	10	50	55	50	32	42	45	35	40	58	15	52	36	37	54	16	22	26	45	49	35	29	69	37	20	19
Daily	20	88	31	35	28	10	28	14	28	27	21	77	23	45	49	27	82	76	53	47	32	48	68	17	52	72	73

24

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Table 11 - Learning Library Skills (from Teacher)

IEA Reading Literacy Study, 9-year-olds
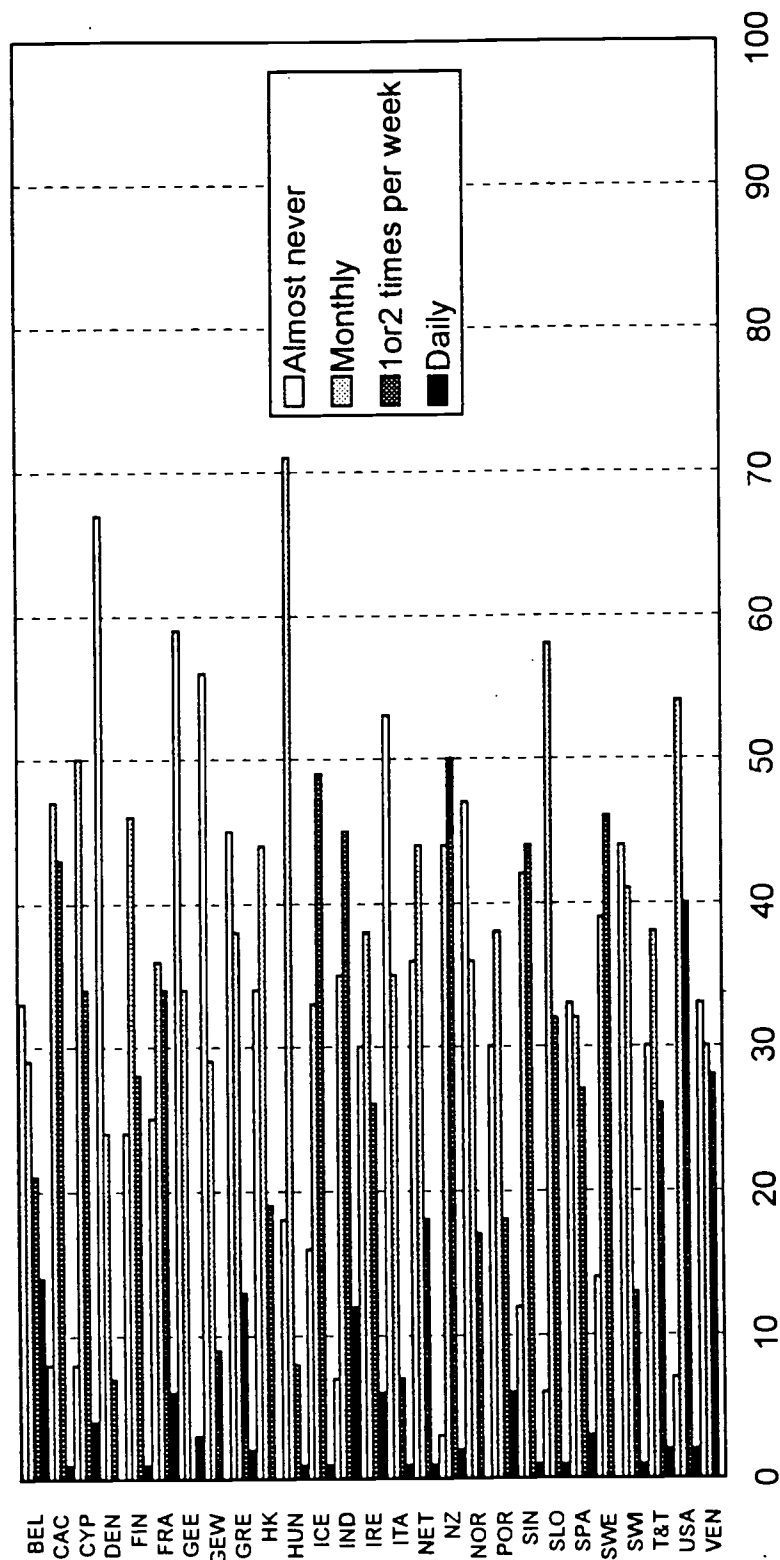
Percentage

Legend:
- Almost never
- Monthly
- 1or2 times per week
- Daily

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SW	T&T	USA	VEN
Almost never	33	8	8	67	24	25	59	56	45	34	18	16	7	30	53	36	3	47	30	12	6	33	14	44	30	7	33
Monthly	29	47	50	24	46	36	34	29	38	44	71	33	35	38	35	44	44	36	38	42	58	32	39	41	38	54	30
1or2 times per week	21	43	34	7	28	34	0	9	13	19	8	49	45	26	7	18	50	17	18	44	32	27	46	13	26	40	28
Daily	14	1	4	0	1	6	3	0	2	0	1	1	12	6	1	1	2	0	6	1	1	3	0	1	2	2	0

Table 12 - Encourage Students to Use Library

IEA Reading Literacy Study, 9-year-olds
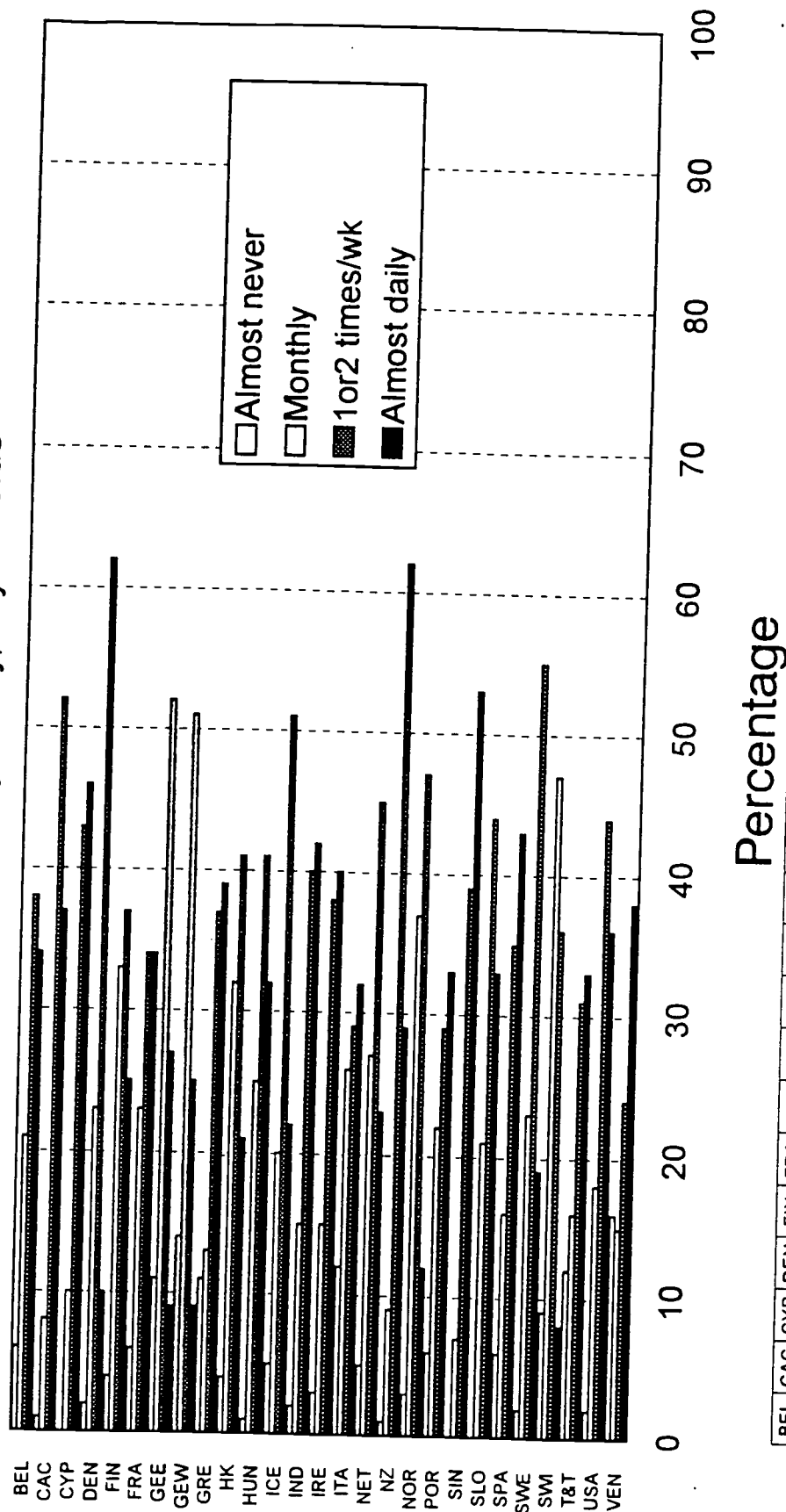
Legend: Almost never, Monthly, 1or2 times/wk, Almost daily

Percentage

	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SW	T&T	USA	VEN
Almost never	5	2	3	12	5	1	3	6	0	0	6	2	9	12	2	16
Monthly	20	15	15	26	27	9	37	22	7	21	16	23	47	16	18	15
1or2 times/wk	51	40	38	29	45	62	47	29	39	44	35	55	36	31	44	24
Almost daily	22	42	40	32	23	29	12	33	53	33	43	19	8	33	36	38

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	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN
Almost never	6	1	0	2	4	6	11	14	11	4	1
Monthly	21	8	10	23	33	23	52	51	13	32	25
1or2 times/wk	38	52	43	62	37	34	27	25	37	41	41
Almost daily	34	37	46	10	25	34	9	9	39	21	32

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Table 13 - Aim:Teaching Children to Choose Own Book

IEA Reading Literacy Study, 9-year-olds

Percentage

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SWI	T&T	USA	VEN
Strongly Disagree	3	2	0	6	12	4	2	2	3	1	1	3	5	1	1	1	1	1	2	1	0	1	2	0	3	2	0
Disagree	52	51	9	57	47	31	21	22	17	6	61	60	25	40	32	0	56	69	29	17	36	32	41	29	53	60	13
Uncertain	5	13	4	22	6	18	14	23	1	15	16	20	29	19	23	9	13	16	8	4	16	14	24	21	10	15	9
Agree	14	7	35	1	3	11	21	17	20	13	3	3	10	5	12	27	1	2	18	26	12	18	6	8	5	5	31
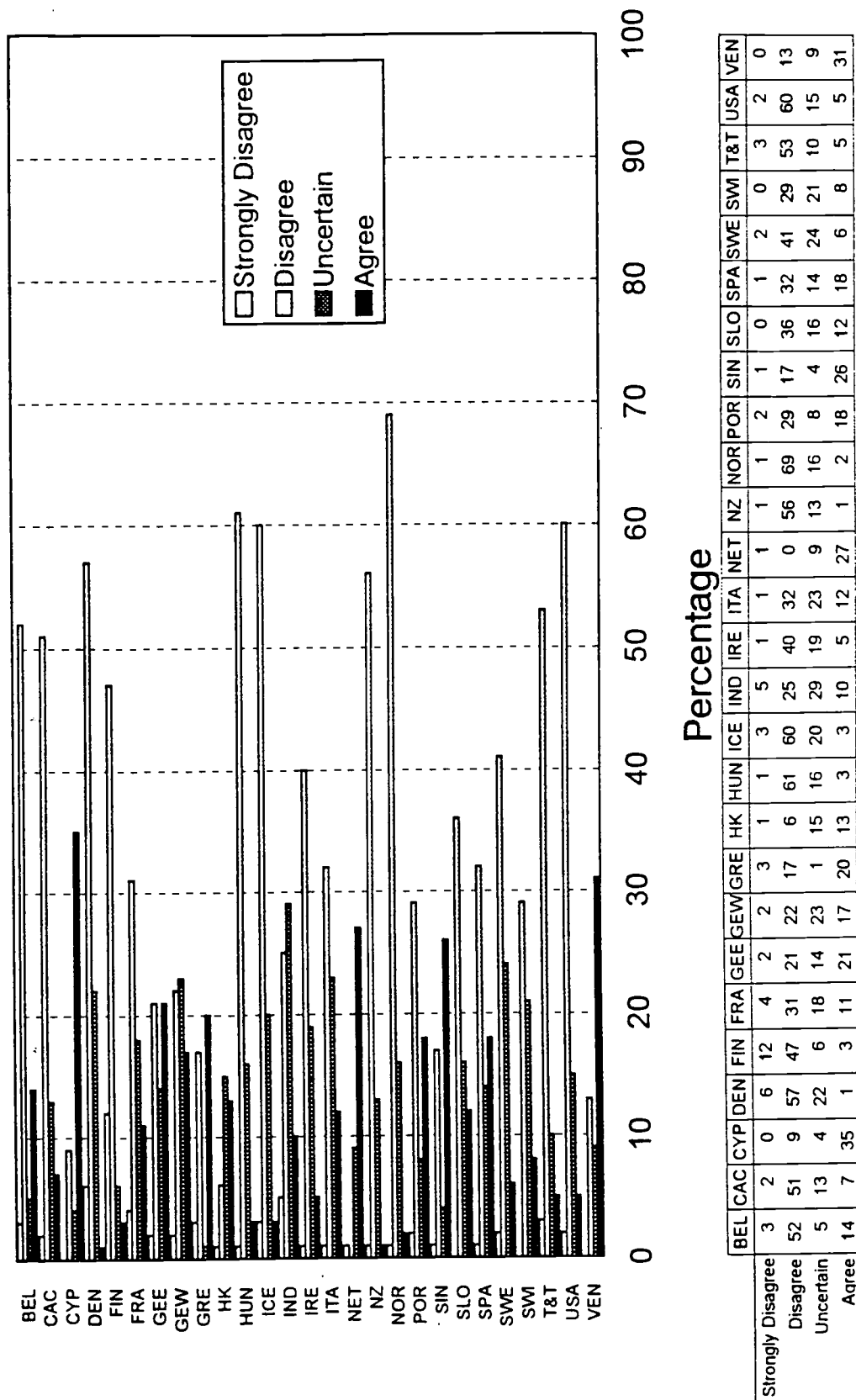
I selected a number of variables to expand, most which were dealt with generally in the previous sections of this paper, and to show their relationship to achievement. These are: teaching in the three domains, assessing students' reading interests, the number of books, magazines & newspapers in the school and classroom library, frequency of borrowing books, visiting the library, and the amount of time spent teaching narrative, expository and document type text.

We look first at the effect of teachers teaching narrative, expository, and document type text and how each is related to the others. In short, does teaching narrative improve reading narrative, and so on. The answer is not particularly clear since teaching narrative and expository text infrequently (i.e., three or four times per year) seems related to achievement as is more frequent teaching (i.e., weekly or daily). Further, almost never teaching documents appears to result in the highest achievement!

As indicated in the international data, the majority of teachers appear to assess students' reading interests on a term or monthly basis, and the graph indicates that in BC there are classrooms in which teachers assess students more frequently and in general continue to get slightly better achievement.

The number of books, magazines, and newspapers in the school library as estimated by teachers does not indicate a predictable relationship with reading achievement in the three domains. The reason for this is not clear, but teachers' estimates of these variables are somewhat at odds with the principals' estimates, and somewhat at odds with what one would reasonably expect. Students' estimates of books in their homes, on the other hand, are very good predictor of achievement as may be seen in Table 15.

While borrowing books from school libraries shows a strong relationship with reading achievement in all the domains; curiously, borrowing books from classroom libraries does not. Further, the frequency of visiting the school library is also relate to achievement although not quite as directly, especially when expository text is considered.

In this last section we have explored the relationship of selected variables to the actual reading literacy achievement in one of the jurisdictions—Canada (BC)—for which such information was available. While some variables presented puzzling pictures, two in particular showed very clear relationships. Students who have the opportunity to borrow books from libraries have a considerable achievement advantage over those who cannot, and the number of books in students' homes as predicted by them shows that those who have few books (i.e., none to 10)lag considerably behind in achievement when compared to those who have many (i.e., 100 or more).

CONCLUDING COMMENTS

The data from the IEA Reading Literacy Study completed in the early '90s provides some interesting insights into school library resources and their use. Further, we get a perspective of teachers' aims, objectives, and teaching practices as they relate to literacy and libraries.

When looking at literacy and library resources, clearly there are great needs in many countries and very limited resources, yet in some countries very reasonable literacy achievement results are obtained even without large expenditures. The data does suggest that countries with higher per student expenditures do have more school and classroom libraries, that students in classrooms that have access to school libraries achieve higher than those who don't, and that students who have many books in their homes achieve at higher levels than those who don't.

The relationships of resource and practices to achievement were explored to determine what could be learned. Evidence from this study indicates that the relationships are not simple or as direct as one might hope. All of this has reminded me of a story by Garrison Keillor. Faced with a summer in separation, the narrator and his girlfriend agree to read ten books in common, five picked by him and five by her "so that, although apart, we would have the same things on our minds at the same time and would think of each other." (Keillor, 1985, 15) Not surprisingly the agreement failed. The titles selected by Keillor's characters to impress each other remained unread and engendered feelings of guilt rather than the intended unity. The

Table 14 - Assess Student's Reading Interest

IEA Reading Literacy Study, 9-year-olds
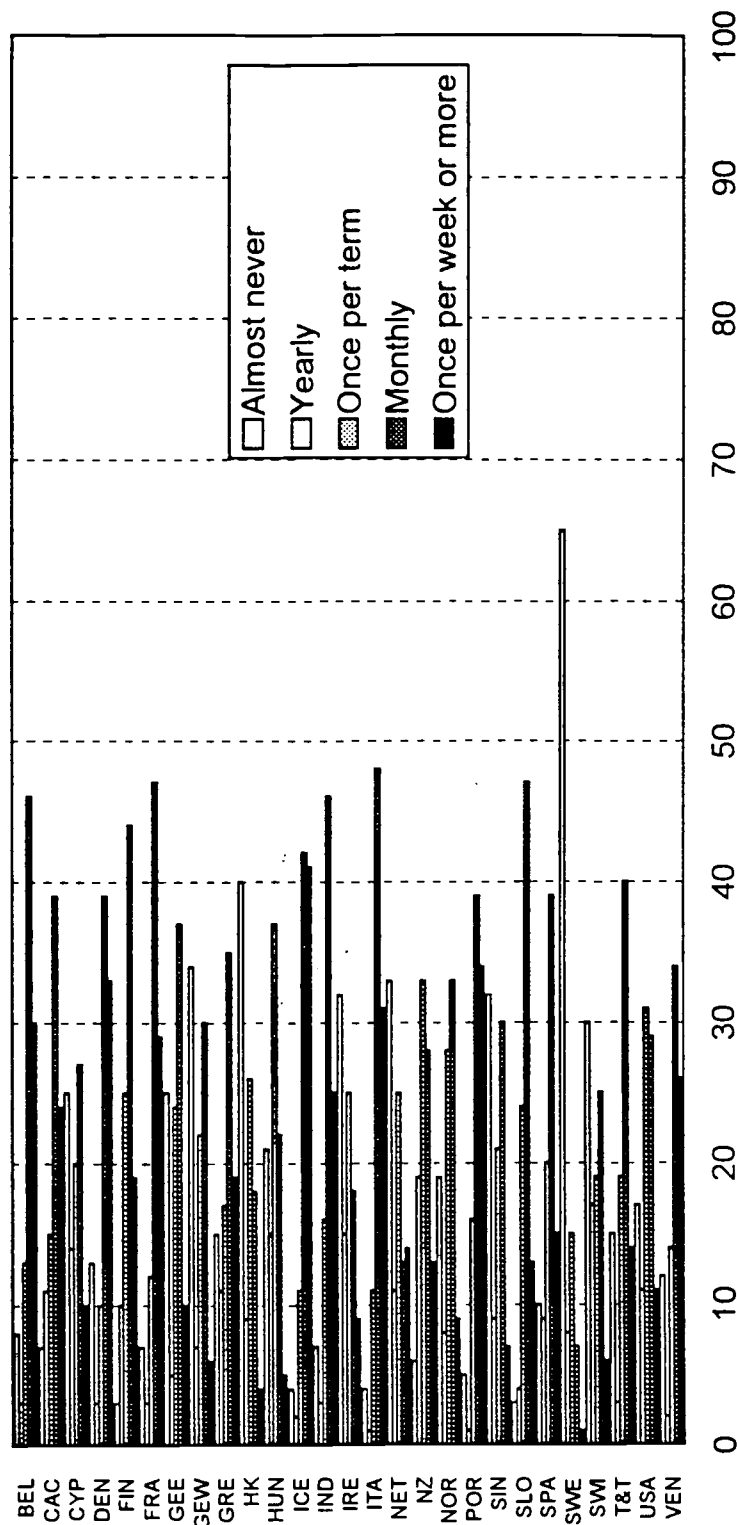
Legend: □ Almost never □ Yearly ▨ Once per term ■ Monthly ■ Once per week or more

Percentage

	BEL	CAC	CYP	DEN	FIN	FRA	GEE	GEW	GRE	HK	HUN	ICE	IND	IRE	ITA	NET	NZ	NOR	POR	SIN	SLO	SPA	SWE	SWI	T&T	USA	VEN
Almost never	8	7	25	13	3	7	25	34	15	40	21	4	7	32	4	33	6	19	5	32	3	10	65	30	15	17	12
Yearly	3	11	14	3	10	3	5	7	11	9	15	2	3	15	1	11	19	8	1	9	4	9	8	17	3	11	2
Once per term	13	15	20	10	25	12	24	22	17	26	37	11	16	25	11	25	33	28	16	21	24	20	15	19	19	31	14
Monthly	46	39	27	39	44	47	37	30	35	18	22	42	46	18	48	13	28	33	39	30	47	39	7	25	40	29	34
Once per week or more	30	24	10	33	19	29	10	6	19	4	5	41	25	9	31	14	13	9	34	7	13	15	1	6	14	11	26

34

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Table 15 - Students' Estimates of Number of Books in Home & Achievement in Three Domains

Pop. A (Grade 3), Canada(BC)

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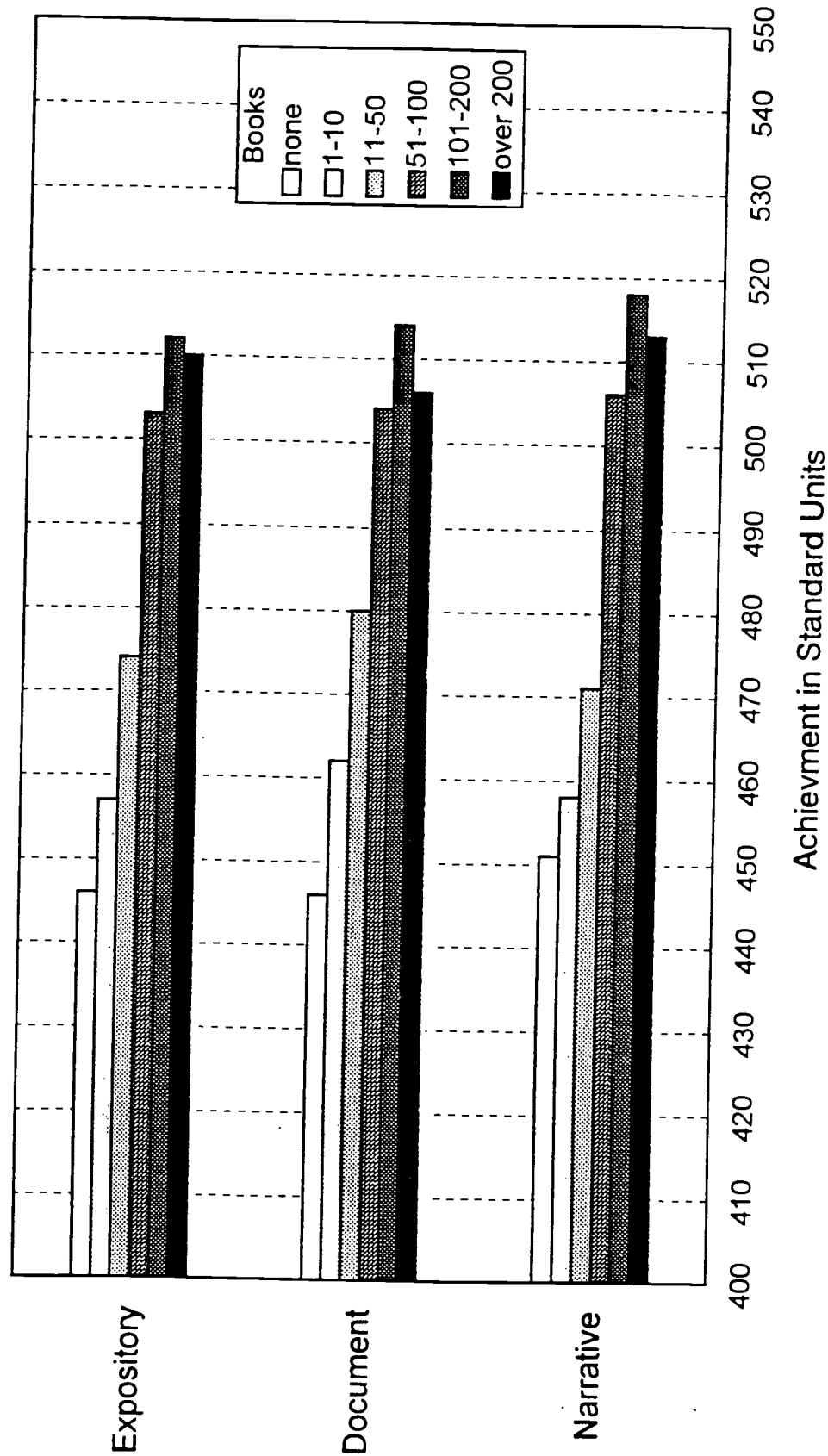
problem for us remains to design research questions that minimize confusion of purpose and allow us to collectively think some of the same things at the same time.

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NOTICE

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