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ABSTRACT

This article provides data and discussion of multicultural theme-related issues arising from analysis of a detailed database of commercial software products targeted to reading and literacy education. The database consisted of 1152 titles, representing the offerings of 104 publishers and distributors. Of the titles, 62 were identified as having multicultural themes. Major conclusions from an examination of these products included: (1) the number of multilingual titles, especially for Spanish, is fairly substantial, but the number of multicultural titles is limited; (2) few titles are available beyond the primary grades, especially for struggling readers; (3) publishers appear to put low priority on development of software for smaller markets, such as non-Hispanic language groups and less familiar cultures and societies. (Contains 22 references; appendixes contain 3 tables of data and a 13-item list of software publishers and distributors.) (Author)



Trends in Literacy Software Publication and Marketing:

Multicultural Themes

Paper presented at the

National Reading Research Center Conference on Literacy & Technology for the 21st Century

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Trends in Literacy Software Publication and Marketing: Multicultural Themes

Abstract

The article provides data and discussion of multicultural themerelated issues arising from analysis of a detailed database of commercial
software products targeted to reading and literacy education. The
database consisted of 1152 titles, representing the offerings of 104
publishers and distributors. Of the titles, 62 were identified as having
multilingual components and 26 were identified as having multicultural
themes. Major conclusions from an examination of these products
included: a) the number of multilingual titles, especially for Spanish, is
fairly substantial, but the number of multicultural titles is limited; b)
few titles are available beyond the primary grades, especially for
struggling readers; c) publishers appear to put low priority on
development of software for smaller markets, such as non-Hispanic
language groups and less familiar cultures and societies.



Trends in Literacy Software Publication and Marketing: Multicultural Themes

The past five years have seen a rising interest in expanding the multicultural curriculum, in helping teachers and students become more aware of the varied aspects of the cultures that make up our nation and our world. This increased interest has come about as a result of several factors. The percentage of schoolchildren hailing from social and and language backgrounds outside of the English-speaking, white, middle class majority is growing, a so-called "demographic imperative" (Banks, 1994) for greater multicultural concerns in the schools. There appears to be a frequent mismatch between school curricula and the needs of children from diverse social backgrounds, resulting in disappointing achievement levels (Au & Mason, 1981; Trueba, 1988). The world grows smaller, as improved communications and transportation allow more contact with peoples beyond our borders and as businesses increasingly have international ties. Awareness of these changing needs of our society have sparked a national debate over the goals of multicultural education and over the methods to be employed to achieve those goals.

The increased attention to multicultural education has important



implications for the field of reading/literacy education (Godina, 1996). Textbooks used in reading/literacy teacher education classes regularly include sections on multicultural issues (e.g., Vacca, Vacca & Gove, 1995). Several texts have been published that are entirely devoted to these issues (Crawford, 1993; Harris, 1993; Hollingsworth, 1994; Miller & McCaskill, 1993; Tiedt & Tiedt, 1990). Commercial reading materials with multicultural themes are widely available in print form. Helped along by important attention from school book clubs such as Scholastic and Trumpet and award series such as the Caldecott, Newbery and Coretta Scott King Awards, children's trade books with multicultural themes have become widely available.

In the midst of these reconsiderations of the role of education in our society has come a renewal of interest in technology, brought about by a combination of new developments in technology and an improved national economy that allows schools to invest in that technology (Author, 1996a). The increased availability in the schools of powerful, multimedia computers, optical disk-based software, and telecommunications can provide educators with a new opportunity to consider the potential roles of technology in reading and literacy instruction.

One such role that technology might play in helping children develop in reading/literacy ability is that of providing for multicultural thematic experiences. Reading teachers may be simultaneously looking for ideas to



improve multicultural education and for ideas to incorporate technology into the curriculum. Integrating the two purposes may offer a solution to both concerns. In addition, integration avoids communicating to students that multicultural education is an "add-on" to the curriculum. Study of culture and society should "permeate the curriculum and instructional strategies used in schools" (Nieto, 1992, p. 208), not simply serve as just one more special subject tacked on. Further, the high motivational power of computer technology may help to overcome one of the serious obstacles to multicultural education: The perception by many students that reading and learning about other cultures is "boring" and "irrelevant" (Ostrowski, 1994). Students often see little reason to learn about people with whom they feel little in common.

The Internet can-provide one technology-rich avenue for multicultural studies (Author, 1997b). Another technological tool for multicultural literacy education is that of commercially published software. A significant number of software titles with multicultural themes have been published to promote social studies education. CD-ROM-based software on many multicultural topics contains collections of still photographs, video footage, and text. Much of this software is the multimedia equivalent of traditional print library reference texts. It can be pressed into use by reading/literacy teachers, whether as supplemental reading material, research material, or material for integrated thematic



units. The purpose of the present study, however, was to investigate the availability and quality of commercial software with multicultural themes that has been directly targeted to traditional reading and literacy instructional goals.

Description of the Project

The results described in this paper are derived from a project designed to track trends in publication of commercial software for literacy education (Author, 1997a). The purpose of the project is to provide educators with a clearer idea of the amount of software available for different literacy educational purposes, and to identify changing trends in the publication of that software.

A database of software titles and characteristics was created_to provide a numerical-sampling of-these trends in commercial software publication in literacy education. Only software that had a dominant theme that fit the traditional reading/literacy curriculum was included in the database.

This latter policy eliminated much software that has important potential literacy application, but that has a dominant theme pertinent to some other content or skill area, such as science or social studies. For example, Our Environment (Sunburst, 1995; see Appendix A for publisher and distributor addresses), an interactive multimedia source of



information on natural resources, could be used in a literacy-rich thematic unit on ecology. It was not included in the database, since its focus is in the content area of science. In addition, software that focused on advanced literature studies, such as might be used in secondary English classrooms, was not included unless it had a clear reading/literacy strategies orientation.

Assembly of the database began with identification of software publishers who have played a major role in the field of reading and literacy. The first publishers to be included in the database were chosen on the basis of their importance to the field of reading/literacy education according to a variety of measures. For example, all software publishers with booths at the April, 1994, International Reading Association Convention in Toronto were included, as were publishers presenting in the Technology Strand sessions at that convention.

As the database grew, other sources of information were tapped to identify a wider variety of publishers who release relevant software. In all, 104 publishers and distributors were finally represented in the database. Among the publishers with the largest number of offerings were Scholastic (183 titles), Edmark (92), Broderbund (69), Hartley (63), Davidson (47), Eduquest (35), and Sunburst (35).

The final version of the database included a total of 1086 software titles were included. Of the 1086 titles, 163 (15.0%) had been published



in 1995, 80 (7.4%) in 1996, and 843 (77.6%) in previous years. Entries into the database were made by the author and two graduate assistants. Decisions about classification of software was made based on publishers' catalog descriptions.

For purposes of the present paper, software was categorized from two major perspectives. The first perspective identified and characterized software that provided for the multilingual needs of children who might educationally benefit from opportunities to function at least in part in a language other than English. The second perspective identified and characterized software that provided users with increased awareness of the multicultural aspects of society, focusing primarily on race and ethnicity.

Results: Multilingual Materials

This component of the study involved examination of materials with a language component other than English. The database of software did not include materials that are exclusively designed for English as a second language instructional classes, nor for foreign language instruction. The major result of this differentiation was the exclusion of large, computer-based instructional systems of software designed for English as a Second Language classrooms.

The software included in the database fell into three major



categories. 1) Some software provided instruction in both English and a second language, or in the second language alone. 2) Other software, such as SuperPrint for the Macintosh, Bilingual Edition (Scholastic, 1993) provided for writing and printing using print characteristics of a second language. 3) Still other software provided reading and listening materials in more than one language, a common characteristic of certain electronic books series, such as the Discis and Broderbund publications.

Of the 1086 titles in the total database of reading/literacy software, 62 (5.7%) were identified as having multilingual components. Publishers playing a major role in the offerings included Discis (17 titles), Broderbund (7 titles), MECC (5 titles) and Sanctuary Woods (6 titles). The database included only limited information on date of publication: 1995 and 1996 publications were identified by date, but publication dates for earlier titles were not differentiated. Of the 62 multilingual titles, 8 (12.9%) had been published in 1995 and 7 (11.2%) in 1996. These figures were close to the percentage of 1995 titles in the total database, 15.0%.

Table 1 presents a comparison of the major software types represented by the multilingual titles and titles in the total database. Several of the differences indicated have mundane explanations. The multiple category consists of software that provides more than one subprogram, some of the subprograms being of different types. For



example, the popular Broderbund series of early childhood programs such as The Backyard (Broderbund, 1992) has several different kinds of subprograms, including both drill and practice as well as application. But the number of multiple programs in the total database is highly inflated by a large series of programs that is still in publication but is out-of-date and designed for older model computers.

One interesting result involves the number of electronic books available to the teacher of reading and literacy for use with children from other language backgrounds. 50% of the multilingual titles were electronic books. In the Broderbund titles, for example, such as The Tortoise and the Hare (1993), readers can choose to read the story and hear it read in either English or in Spanish. The large number of such electronic books=provides teachers with a wide selection—for helping children develop proficiency in English.

Of the 62 publications, 58 included Spanish as a foreign language resource, by far the most prevalent language among the publications. 12 titles included French, 6 included German, 3 included Italian, and 1 included Japanese. One additional title, Dr. T's Sing-A-Long Around the World (Tom Snyder, 1992), a collection of songs and their lyrics from many countries, offered limited samples from a variety of languages.

Table 2 identifies the level appropriateness for the multilingual titles. By far the largest number of publications, 47 (75.8%), were



designated as appropriate for primary students (This includes those designated only as primary, those appropriate for all elementary students, and those appropriate for all grades.) 20 of the titles were designated as appropriate for intermediate grade students, though all but one of these titles were generally appropriate throughout the elementary grades or throughout all grades. Few titles were available for other levels.

The literacy skill objectives targeted by the multilingual software are identified in Table 3. The large number of electronic books included in the multilingual category are reflected in the General Reading category's 32 titles (51.6%), which includes titles primarily designed to provide reading experiences to the users. The other large category was Writing, another general category that included software primarily designed to support writing experiences. This category included 12 (19.4%) of the titles. 8 titles (12.9%) focused on word recognition skills, including phonics and sight word activities.

Results: Multicultural Materials

Software in the total database of reading and literacy publications was classified according to its multicultural education potential. Such software might provide users with increased understanding of the various cultures that make up our world and our society, and it had a strong literacy emphasis. For example, the software might contain information,



stories or songs from particular cultures. This categorization focused primarily on race, nationality, and ethnicity.

Of the 1086 titles in the total database of reading/literacy software, 26 (2.4%) were identified as having multicultural themes.

Publishers playing a major role in the offerings included Scholastic (seven titles), Davidson (four titles), Edmark and Queue (three titles each). Of the 26 multicultural titles, 8 (30.1%) had been published in 1995 and 4 (15.4%) in 1996. These figures were higher than the percentage of 1995 and 1996 titles in the total database, 15.0% and 7.4%, respectively. This higher percentage suggests that software publishers may be responding to the increased interest in multicultural education in American schools.

The small total number of titles on the market, however, indicates that teachers continue to have-little software from which to choose.

Table 1 provides the breakdown of multicultural software classified according to type of software. Of the six general categories of software used in the study, only two had a significant number. Six titles were application software and 17 titles were electronic books.

Upon examination of the specific cultural emphases of the software, it was found that 1 of the 22 titles was devoted to an African-American theme and 2 to African themes. 3 dealt with Hispanic themes, and 1 each was addressed to Jewish, Japanese, South American Indian, and Native American themes. 13 others dealt with themes from more than one



cultural group, or could be flexibly used with a variety of cultural groups. For example, some of the application software was flexible to be used with any cultural group.

Table 2 identifies the level appropriateness for the multicultural titles. As with the multilingual titles, the largest number of publications, 15 (57.7%), were designated as appropriate for primary students. 11 (42.3%) of the titles were designated as appropriate for intermediate grade students. Unlike the multilingual titles, several titles were designated as specifically created for intermediate students.

As with the multilingual materials, few titles were available for levels other than elementary.

The literacy skill objectives targeted by the multicultural software are identified in Table 3. Patterns followed the multilingual_results______ closely. 20 (76.9%) of the titles were designated as General Reading, reflecting the large number of electronic books. The other large category was Writing, including 5 (19.2%) of the titles.

Information pertinent to computer hardware compatibility was also included in the database. It is clear that provision of a newer model computer equipped with a CD-ROM drive is almost a necessity for use of both the multilingual and multicultural software. 62.9% of the multilingual titles and 69.2% of the multicultural titles are available only on CD-ROM. The major computer platforms today are the Macintosh and PC



platforms. Both major platforms scored similarly in the multilingual category, with 58 items (93.6%) available for the Macintosh and 54 (87.1%) available for the PC. The Macintosh maintained a larger leading edge in the multicultural category, however, with 25 titles (96.2%) compared to the PC's 16 titles (61.5%).

Discussion and Conclusions

The present study is drawn from the first year of what will become an ongoing, multi-year compilation of data about trends in software publication for the teaching of reading and literacy. The study should provide results of interest on a wide variety of reading/literacy-related issues. As far as the present results, pertaining to multilingual and multicultural issues are concerned, the following conclusions might be drawn:

- 1. Teachers have available to them a wide choice of multilingual titles, especially at the primary level and especially for Spanish.

 Additional competition among publishers for this market would have the beneficial effect of providing software of superior quality.
- 2. There is a more limited number of titles dealing with multicultural themes on the market. This is somewhat surprising, considering the widespread interest in multicultural education and the tremendous availability of print materials available with multicultural



themes.

- 3. For both multilingual and multicultural titles, there is little available for older readers. There is little or nothing on the market for older students who are struggling readers.
- 4. In the face of this lack of software specifically designed for reading and literacy instruction, teachers of older students can choose to make use of software designed for content area learning. As noted earlier in this article, the assignment of software to traditional curricular categories such as reading, writing or social studies offers benefits and disadvantages. The traditional categories, however imprecise and overlapping, are well understood by teachers and allow for ease of integration with the existing classroom curricular strands. With increased integration of curriculum in recent years, as in thematic and project approaches, such categorization systems can provide for organization and balance. A key disadvantage of such categorizing is that it does not neatly account for the potential interdisciplinary use of software.

In the present study, for example, much software of potential use to literacy-rich thematic units is omitted because it best fits the traditional categories of content area materials, especially in literature and in social studies. 500 Nations (Microsoft, 1995), for example, is a multimedia resource based on materials from the television documentary



series of the same title. It provides over 2000 still images of Native Americans, as well as dozens of animated sequences, with maps, stories and songs. American Survey: History in Your Hands: Women in America (Permabound, 1995) provides letters, journals, photographs, maps and songs of relevant to women's studies. Audio and videoclips of speeches and interviews are also provided. These and many other software resources can be employed to provide older students with rich experiences that integrate content area study with reading and writing.

5. One potential benefit of the use of computer-based instruction is the provision of teacher tools that help educators meet the needs of specific population groups. For example, a teacher lacking knowledge of the culture of a given society might use software to compensate. A teacher with no knowledge of Portuguese or Cambodian might use software with multilingual capabilities to meet needs of immigrant children.

The present study indicates that, except for the provision of Spanish language capabilities, this is an unrealized potential of computer-based instruction. Publishers show little interest in providing for such niche markets. At present, they are far more likely to devote their development resources to a battle for markets that already have many competing programs, such as those for letter and word recognition software or for word processors.



6. While the total number of multilingual or multicultural programs from which teachers can choose is somewhat limited, the variety of program types is even more limited. If electronic books and the programs designed to support writing experiences were eliminated from the market, there would be almost nothing left. Even with those limitations, the availability of just these two types of software is a potential boon for the classroom. Authentic writing and research experiences are a vital part of the classroom literacy program.



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Appendix A

Software Publishers and Distributors

Broderbund, PO Box 6125, Novato, CA 94948-6125, 800-474-8840, 415-382-4700

Davidson & Associates, P.O. Box 2961, Torrance, CA 90509, 800-556-6141

Discis, 90 Sheppard Avenue East, 7th Floor, Toronto, Ontario, Canada M2N 3A1

Edmark, P.O. Box 97021, Redmond, WA 98073-9721, 800-320-8380 EduQuest (An IBM Company), P.O. Box 2150, Atlanta, GA 30327, 800-426-4338

Harley, 9920 Pacific Heights Blvd., Suite 500, San Diego, CA 92121, 800-247-1380

MECC, 6160 Summit Drive North, Minneapolis, MN 55430-4003, 800-685-MECC

Microsoft, One Microsoft Way, Redmond, WA 98052-6399, 800-955-1837, 800-426-9400

Queue, 338 Commerce Drive, Fairfield, CT 06432, 800-232-2224

Sanctuary Woods, 1825 South Grant St. #410, San Mateo, CA, 94402, 800-943-3664

Scholastic, 2931 East McCarty Street, Jefferson City, MO 65101,



800-724-6527

Sunburst/Wings for Learning 101 Castleton Street, PO Box 100, Pleasantville, NY 10570-0100, 800-321-7511

Tom Snyder Productions, 80 Coolidge Hill Road, Watertown, MA 02172-2817, 800-342-0236



Table 1
A Comparison of the Major Software Types

Туре	Multilingual Titles	Multicultural Titles	Total Database
Tutorials	2	0	85 (7.8%)
Drill & Practice	15	1	419 (38.6%)
Electronic Books	31	17	285 (26.2%)
Application	14	6	238 (21.9%)
Reference	o .	0	6 (.006%)
Multiple	o .	2.	53 (4.8%)
	•		
Total	62 (5.7%)	26 (2.4%)	1086 (100%)
		•	



Table 2
Level Appropriateness

Level	Multil	ingual Titles	Multic	cultural Titles
Emergent	2	(3.2%)	1	(3.8%)
Primary	38	(62.0%)	11 ¹	(42.3%)
Intermediate	1	(.02%)	7	(26.9%)
Elementary ²	15	(24.1%)	3	(11.5%)
Secondary	2	(3.2%)	33	(11.5%)
College	0	.(0%)	0	(0%)
Adult Literacy	0	(0%)	0	(0%)
All grades	4	(6.4%)	1	(3.8%)
Total	62		26	

¹One of these titles was specifically designated for Grade One, and two for Grade Two.



 $^{^2}$ These titles were appropriate for both primary and intermediate grades and did not include those that had been placed separately in the primary or intermediate categories

³One of these titles was specifically designated for High School.

Table 3
<u>Literacy Skill Objectives</u>

Literacy Skill	Multil	ingual Titles	Multic	cultural Titles
General Reading ¹	32	(51.6%)	20	(76.9%)
Writing	12	(19.4%)	5	(19.2%)
Vocabulary	2	(3.2%)	.0	(0%)
Word Recognition ²	4	(6.5%)	0	(0%)
Phonics	2	(3.2%)	1	(3.9%)
Sight Words	2	(3.2%)	0 .	(0%)
Lower Level Comprehension	1	(1.6%)	0	(0%)
Higher Level Comprehension	2 ³	(3.2%)	0	(0%)
Spelling	2	(3.2%)	0	(0%)
Multiple	34	(4.8%)	0	(0%)
Total	62		26	

¹This included titles primarily designed to give a reading experience to the user, such as electronic books.



²This was software targeted to more than one word recognition skill. Often such software included both phonics and sight word activities.

³This included one title specifically targeted to sequencing skills.

⁴This software included more than one primary activity, each of which addressed different literacy skills.

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