Users of school libraries and teacher resource centers have had significant problems in accessing curriculum materials in card catalogs as well as in online catalogs. Curriculum-Enhanced [Machine Readable Cataloging] (CEMARC) addresses these problems by: (1) offering data entry guidelines for a minimum USMARC standard (in order to clarify inconsistencies in application) and (2) suggesting enhancements that go beyond the USMARC standard. The Northwest Ohio Educational Technology Foundation (NWOET) is the primary agency responsible for developing the CEMARC format. The NWOET office developed interim guidelines for school library media specialists submitting catalog records to the InfoOhio database which contain recommendations for a minimum format for "Brief USMARC" records in a union catalog database. The required tags for the minimum record concern: fixed data elements; cataloging source; title; publisher/producer/pagination; descriptive tag; and library name. Curriculum-related information is essentially accommodated in three tags. A new tag has been designated for curriculum objectives. CEMARC records can be developed at the national as well as the state level if the curriculum-related descriptive tags are included in LC and Cataloging in Publication (CIP). Local school systems can enhance catalog records with local curriculum objectives and special learner needs. School librarians need to encourage publishers of textbook and nonprint materials to participate in the CIP program. (AEF)
Some Problems with USMARC

Users of school libraries and teacher resource centers have had significant problems in accessing curriculum materials in card catalogs (Wehmeyer 1976) as well as in online catalogs (Murphy 1987). Curriculum materials, which may include juvenile literature and audio-visual materials, as well as curriculum guides and textbooks, are not adequately described in catalog records, particularly by the traditional Library of Congress subject headings assigned. Other problems with traditional cataloging of children's materials include a lack of descriptive detail such as a summary note, reading level of the item, book pagination or film running time, or name of illustrator. Even catalog records that are considered "full MARC", and there is a great deal of confusion about what constitutes "brief" and "full" MARC records, often do not provide enough information to link curriculum materials to the appropriate learning environment. CEMARC addresses these problems by (1) offering data entry guidelines for a minimum USMARC standard (in order to clarify inconsistencies in application) and (2) suggesting enhancements that go beyond the USMARC standard.

Curriculum-Enhanced MARC (CEMARC) Guidelines

The Northwest Ohio Educational Technology Foundation (NWOET) is the primary agency responsible for developing the CEMARC format. The NWOET office (Miniere 1993) developed interim guidelines for school library media specialists submitting catalog records to the InfoOhio database. These interim guidelines contain recommendations for a minimum format for "Brief USMARC" records in a union catalog database. The required tags for the minimum record are:

- **008** Fixed Data Elements
- **040** Cataloging source (LC, vendor, local)
- **245a** Title (245 b Materials designator for type of media)
- **280 b** Publisher/producer

- **300 a** Pagination
- **520 a** Descriptive tag
- **852 a** Library name (where the item is located)

The optional recommendations in CEMARC create a new standard because they go beyond the requirements for a standard USMARC record. Curriculum-related information is essentially accommodated in three tags, **520** (the notes field that is required at Level 1 but often missing or less than satisfactory in these records), **521** (which incorporates new indicators for special learner characteristics and motivation/interest level), and **658** (a new index term heading for curriculum objectives). Local subject headings that are not curriculum terms may be placed in **690** as usual. Local library information may be expanded in the **852** tag; **950-969** are reserved for any local and state level project data.

Input for the **520** tag is the usual unformatted note that describes the scope and general contents of the described materials. It can be a summary, abstract, annotation or even just a phrase. CEMARC guidelines include the addition of published reviews of educational materials.

The **521** (subfield a) is used to record information about the target audience. The agency assigning the information (source) is indicated in subfield b). Examples follow:

- **521 0b=a5.** (Reading level grade 5)
- **521 1b=a009-012** (Interest level ages 9-12)
- **521 2b=a9-12.=bFollett Library Book Co.** (Interest level grades 9-12, source)
- **521 3b=aVisually impaired=bLENOCA.** (Special learner characteristic, source)
- **521 4b=aModerately motivated= bMotivation level**

A new **658** tag has been designated for curriculum objectives. Subfield a contains national, state or local curriculum objectives, taken from published lists or directories. Subfield b contains subordinated objectives, if relevant; subfield c will list a coded representation of the curriculum objective and subfield d may contain a correlation factor (of the motivation level of the...
user). The source of the term(s) is noted in subfield 2. See example:

658 b7=Reading objective 1=bidentify, locate and use information=eNRPO1-1991=2lenoca.

**Implementing CEMARC**

The *NWOET* project has demonstrated the feasibility of developing CEMARC records at the state level. Roger Miniere (1993), the prime mover in developing CEMARC, reports that the initial catalog of 1000 records (mostly nonprint media) has grown to 15,000 contributed records and is increasingly responsive to requests from teachers for special bibliographies. Each catalog record is submitted in paper form by a school library media specialist, working from the material in hand, and using NWOET guidelines for "brief" and CEMARC records.

South Carolina Education Department and the Southern Educational Communications Association are other state agencies cited in the development of CEMARC (NWOET 1993). CEMARC records can be developed at the national as well as the state level if the 520 and 521 tags are included in LC and Cataloging in Publication (CIP). Some vendors, e.g., National Instructional Television Utilization Center, are also expressing interest in developing enhanced records by including grade and reading levels, full annotations, and special learner characteristics as they are available.

Local school systems can enhance catalog records with local curriculum objectives and special learner needs. *Mitinet*, the cataloging software distributed by Information Transform, now conforms to the CEMARC standard.

School librarians need to encourage publishers of textbook and nonprint materials to participate in the CIP program. All publishers should be lobbied to provide not only "full MARC" records but Curriculum-Enhanced records. Vendors of automated systems will need to design systems that access the enhanced fields in the database.

The automation age has brought school librarians into the mainstream of adherence to cataloging standards. CEMARC offers the best of both worlds, adherence and enhancement.

**References**


Miniere, Roger (NWOET), author's notes of a telephone conversation, November 1993.


Proposal No. 93-12 Additions to Accommodate Curriculum Information in USMARC Bibliographic Records, April 1993, distributed by Northwest Ohio Education Technology Foundation.

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