DOCUMENT RESUME

ABSTRACT
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in decades. At this quarter-century juncture, then, it is appropriate
to reflect retrospectively and prospectively on the meaning, impact,
and continuing possibilities of Bloom's learning for mastery. In so
doing, this paper focuses on what could be termed the
"internationalization" of mastery learning. Evidence of mastery
learning research and development initiatives in well over 30 nations
does indeed invite not only an analysis of what has already
transpired in the worldwide community but also a projection of future
directions for mastery learning in the international arena. (Contains
119 references.) (Author)

The Internationalization of Bloom's Learning for Mastery:
A 25-Year Retrospective-Prospective View

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Abstract

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Benjamin S. Bloom's 1968 article titled "Learning for
Mastery" has become one of the most generative works to appear in
the educational psychology literature in decades. A recent
computer search of the ERIC data base revealed 1,297 citations
associated with the search expression "learning for mastery" and
683 citations based on the term "mastery testing," for a total of
1,983 documents. And, of course, there are those entries in the
mastery learning literature predicated on Bloom's seminal work
that are simply not included in the ERIC system. Furthermore, the
Social Science Citation Index indicates 1,504 instances of Bloom's
specific 1968 article being cited in the professional literature.

Owing its conceptual origins partly to the earlier works of
Washburne (1922), Morrison (1926), and Carroll (1963), Bloom's LFM
examines the relationship between the concepts of <u>time as a
variable</u> and <u>high student performance as a constant</u>. This is done
in the context of the following two principal orientations that
are now standard knowledge among mastery learning researchers and
practitioners (Anderson, 1981; Anderson & Block, 1975; Block,
1971, 1980, 1985; Bloom, 1968, 1971, 1976, 1980): First, in the
theoretical realm there is the optimistic set of assumptions
regarding the capability of students to learn if alterable
variables comprising the conditions of learning are optimized.
Secondly, in the more practical realm there is the array of
adaptive instructional procedures predicated on the medical model
of diagnostic-prescriptive intervention.

From both theoretical and practical perspectives, then,
Bloom's learning for mastery has served as a catalyst for a
<u>paradigm shift</u> from a dominant prediction-selection model to an
emerging diagnostic-development model (Dyck, 1976; Dyck & Wellens,
1979; Dyck & Wouters, 1989; Dyck, Van de Looverbosch, & Wouters,
1982). Accordingly, success or failure in school learning is
viewed largely as an <u>artifact</u> of the extent to which we
appropriately accommodate certain learner-based and instruction-
oriented variables considered to be alterable rather than static.

Over the past 25 years since the appearance of Bloom's
article, most of the mastery learning literature has focused on
the North American experience and its socio-psycho-cultural
interpretations with only occasional documentation of mastery
learning efforts in Western Europe, Asia, the Middle East, South
America, and Australia (Anderson & Block, 1985; Hymel, 1990, 1991;
Thomas, 1985). This pattern had been suggested earlier--and later
corroborated--by entries in a comprehensive bibliography on
mastery learning (Hymel, 1982), state-of-the-art literature
reviews on mastery learning (Block & Burns, 1976; Guskey & Gates,

1986; Guskey & Pigott, 1988; Kulik, Kulik, & Bangert-Drowns, 1990; Kulik, Kulik, & Cohen, 1979), and attempts to identify major gaps in the literature that suggest future directions for mastery learning efforts (Hymel, 1990, 1991).

In response to this paucity of a worldwide perspective on mastery learning in the professional literature, a paper (Hymel & Dyck, 1992) delivered last year at the 25th International Congress of Psychology in Brussels attempted to initiate an international focus on mastery learning. Included among the several objectives of that paper was the acknowledgment of mastery learning efforts in approximately 30 nations beyond North America.

Clearly, then, Bloom's original thoughts on mastery learning in 1968 have taken on an international character that has ramifications both retrospectively and prospectively. In a retrospective sense, there is still a pressing need for integrative literature reviews beyond the Hymel and Dyck (1992) paper that document the nature of past and current mastery learning initiatives in the international community at large. And in a prospective sense, the internationalization of mastery learning abounds with possibilities for further explorations that may not only reflect and reaffirm many of mastery learning's basic tenets but also challenge and modify some of these views as cross-cultural variables are examined.

A Retrospective View

The internationalization of mastery learning viewed retrospectively can be considered in terms of geographic locations, topical areas, and information sources.

Geographic Locations & Topical Areas

Data bases such as ERIC's Resources in Education and Current Index to Journals in Education as well as Psychological Abstracts identify approximately 110 entries that are associated with authors, institutional affiliations, and/or research settings geographically positioned beyond the United States and Canada. Admittedly, this is only a rough index and undoubtedly there are mastery learning contributions occurring internationally that are not captured by these data bases. These three preliminary sources, though, do obviously indicate certain geographic locations and topical areas that suggest a classification scheme for considering mastery learning initiatives in the international community.

The following, then, are mastery learning citations specific to certain geographic locations and are intended as representative rather than exhaustive: Australia (Chan & Cole, 1986; Gay, 1984;

Hermann, 1986; McBeath, 1986; Stanford & Imrie, 1981; Ward, 1979);
Belgium (Dyck & Wouters, 1989; Dyck, Van de Looverbosch, &
Wouters, 1982); Brazil (Keller & Sherman, 1974; Sherman, 1974);
Chile (Pizarro Sanchez, 1992); China (Zhongliang, Xuyang, &
Xiaoping, 1984); Cuba (Martuza, 1986); Egypt (Wahby, 1979);
England (Pennycuik & Murphy, 1986; Straker, 1988); Finland
(Lahdes, 1983); France (Council of Europe, 1975); Germany
(Langeheine, 1992; Sandrin, 1990); India (Chaudhari & Vaidye,
1986); Ireland (Whiting, 1982, 1984); Israel (Katz, 1986; Kremer-
Hayon & Ben-Peretz, 1984; Lewy & Nevo, n.d.; Mevarech, 1986, 1991;
Mevarech & Werner, 1985; Reves & Levine, 1990; Tenenbaum, 1986);
Japan (Cummings, 1977); Korea (Kim, 1971, 1975; Lee, 1977);
Lebanon (Reed, 1983); Malaysia (Nordin, 1980); Mexico (Maginnitu,
1976); Netherlands (Creemers, 1976; de Gruijtes, 1985; Reezigt &
Weide, 1990; Van der Linden, 1987; Vos, 1988; Warries, 1974); New
Zealand (Imrie, 1984; Studman, 1984); Nigeria (Badmus, 1976);
Norway (Skaalvik, 1975); Puerto Rico (Canino & Cicchelli, 1988);
Scotland (Drever, 1987; Parkinson, Mitchell, & Johnstone, 1983;
Peacock, 1981); Sweden (Dahllof, 1978; Fischbein, 1979);
Switzerland (Flammer, 1973); Taiwan (Chen, 1987). Evidence is
also available for mastery learning's appearance in Singapore (E.
Thomas, personal communication, April, 1992).

The topical areas addressed via mastery learning in the
above-mentioned countries are quite varied and include the
following: agriculture, comparative education, compensatory
education, curriculum planning, computer sciences, economics,
foreign languages, growth and development, health science,
language arts, library science, mathematics, microbiology,
physics, psychometrics, science (general), teacher education, and
vocational education/training.

International Sources of Information on Mastery Learning

The role of North American-rooted data bases such as the ERIC
system and Psychological Abstracts has already been mentioned as
foundational to locating mastery learning documentation. These
are augmented on the international scene by (a) the British
Education Index, (b) the Bulletin signaletique des Sciences de
l'Education in France, and (c) EUDISED that spans 16 countries in
Western Europe. These repositories do not, however, suffice as
the sole sources of information on mastery learning programs and
personnel internationally. Another option that exists and has
been used fruitfully is that of the so-called foreign affiliate
membership rosters of national professional organizations (e.g.,
AERA and APA). Furthermore, membership lists from international
organizations (e.g., the International Council of Psychologists
and the International Association of Applied Psychology) are
useful in tandem with those of national organizations as a basis

for periodic mailed surveys inviting input on mastery learning efforts. that for whatever reason are not included in the standard data bases.

A Prospective View

A prospective view of mastery learning in an international context can be approached from the following vantage points: (a) expanding beyond what has already transpired with respect to geographic locations and topical areas impacted; (b) establishing communication networks; and (c) expanding the scope of mastery learning to incorporate cross-cultural considerations.

Expanding Geographic Locations & Topical Areas of Impact

The geographic "migration" of mastery learning beyond its origins in the United States to encompass approximately 30 additional countries over the past 25 years can be expected to continue. The same expansion can be anticipated as well regarding those topical areas to which mastery learning is applied in the international community. A major impetus for this prognosis is the increased attention being given to cross-cultural themes addressed from a multidisciplinary standpoint as well as the reality of professional organizations becoming more internationally sensitive. Subsequent sections of this paper shall address both of these points in greater detail.

Establishing Communication Networks

Another anticipated development related to the continued internationalization of mastery learning is that of communication networks being established that would focus on material and personnel resources and would enhance their accessibility worldwide through professional societies, forums/conferences, and data bases/repositories. An initial effort in this regard is the current attempt to establish an International Society for Mastery Learning (see Hymel & Dyck, 1992, in preparation) that would sponsor forums both in printed forms (e.g., quarterly newsletter and/or journal) and as biennial conferences (e.g., in affiliation with existing national and/or international organizations such as AERA, APA, and the International Council of Psychologists). This proposed professional society would likewise function as an international data base or repository for identifying, housing, consolidating, and monitoring mastery learning efforts worldwide.

Incorporating Cross-Cultural Themes

A third projected focus for mastery learning as its internationalization continues is that of researchers and practitioners giving greater attention to cross-cultural issues that bear upon instruction and learning.

It perhaps borders on stating the obvious to suggest that the relevance and/or validity of mastery learning's theoretical assumptions and instructional practices may indeed vary somewhat when examined from the vantage point of diverse cultures. Nonetheless, a belief system and corresponding instructional strategy that challenge--unsuccessfully at times even on its own turf--the prevailing prediction-selection paradigm of learning and instruction by offering an alternate diagnostic-development model, must surely be scrutinized in terms of possible consistencies and inconsistencies with the cultural milieu of any society in which it might be proposed.

This necessity for considering cross-cultural issues where the viability of both the theory and practice of mastery learning is concerned naturally lends itself to the literature available on international education (e.g.: Debeauvais, 1985b; Heater, 1985; Holmes, 1985; Husen, 1985; King, 1985; Ottobre, 1985; Perkins, 1985; Postlethwaite, 1985; Stone, 1985; Sutton, 1985). Equally pertinent--and in some instances perhaps even more critical than the international education literature--are those sources on comparative education (e.g.: Anderson, 1985; Brickman, 1985; Coombs, 1985; Debeauvais, 1985a; Eckstein, 1985; Foster, 1985; Holmes, 1985a, 1985b; Ignas & Corsini, 1981; Irvine & Berry, 1988; Kallen, 1985; Noah, 1985; Porras-Zuniga, 1985; Rosier, 1985; Shade, 1989). Also, in view of mastery learning's most basic affiliation with the discipline of psychology, the expanding literature on international psychology indeed has a strategic role to play (e.g.: Ardila, 1982; Hall, 1990; McPherson, 1986; Moghaddam, 1987; Russell, 1984; Sexton & Misiak, 1984; Smith, 1983). And perhaps even more to the point, cross-cultural psychology sources are critical to considerations of the diversity of human behavior and the cultural context in which it occurs (e.g.: Berry, Poortinga, Segall, & Dasen, 1992; Brislin, 1990; Laboratory of Comparative Human Cognition, 1986; Rogoff & Morelli, 1989; Shweder & Sullivan, 1993; Tharp, 1989).

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