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LARGE-SCALE ASSESSMENT OF WRITING IN AN INTERNATIONAL CONTEXT:  
SOME ISSUES AND PROSPECTS

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1. Introduction

In this paper I will first outline the reasons for mounting a large-scale international study of written composition and describe briefly how the project is managed. After that I will try to place the study within a cultural and research context. Then follows an account of the major aspects of the project design, with special emphasis on the writing assignments. After that I will say something about our plans for reporting and conclude by outlining some prospects of utilizing the vast data base. This opportunity to present the project is very welcome, since we hope that the Nordic writing and text research community will help us to do a variety of secondary analyses.

2. Why Study Written Composition

Composition, perhaps more than reading, has become a focal point for critics of schools. Writing, for obvious reasons, is one of the most visible products of education, and incorrect usage and spelling have been taken to be signs of a personal scholastic failure and an alleged widespread deterioration of writing ability an indication of inadequacies in whole school systems.

A growing awareness of the importance of literacy, and more specifically of writing, is probably a concomitant of the growing importance of schooling and education. These are realized through the medium of "texts", and after the initial stage of schooling, the text is increasingly written text. In an

increasingly more complex society and world, it is inconceivable that spoken text could effectively handle all communication needs. Written text has several features which recommend writing as an effective mode of communication in a number of situations (cf. Perera 1984, Takala 1982, Vachek 1973).

In view of the importance of writing in society and in the educational system, it is not surprising that some countries/school systems have begun to assess systematically the efficacy of the teaching and learning of writing (e.g., National Assessment of Educational Progress in the United States; Assessment of Performance Unit in England and Wales). However, large-scale assessment was only becoming an area of interest in the late 1970's.

The study reported here was mounted to accommodate the internationally strengthened interest in the assessment of writing. In August 1980, the General Assembly of the IEA approved a study of written composition. This reflected the recognition by the IEA of the central place that the study of the mother tongue (sometimes referred to, with or without a shift in meaning, as first language, native language, language of instruction) occupies in the school curriculum. Introducing students to written language and thus promoting literacy has traditionally been perhaps the principal task of the school. Learning to read has always been emphasized while writing has tended to receive somewhat less attention. Recently there has been a movement to a greater balance between the two forms of literacy. The IEA study seeks to accommodate this interest, with two additional purposes: (1) Its purpose is to set learning in the context of the cultural framework, curricular emphases and teaching practices, rather than just ascertain the level of achievement. (2) It aims to make it possible for each participating country/school system to assess its relative strengths and weaknesses in writing instruction against an international backdrop. Consequently, important components in the

name of the project, International Study of Written Composition, are "international" and "study". The word "study" is meant to convey that it is not a "mere survey" of the status of learning, but a project with definite research questions. The "international" aspect was discussed above.

This is a study of the teaching and learning of written composition in the schools of fifteen countries/school systems: Chile, England and Wales, Federal Republic of Germany, Finland, Hungary, Indonesia, Italy, Netherlands, New Zealand, Nigeria, Sweden, Thailand, and United States. Half a dozen other countries/school systems participated in various phases of the study, but for a number of reasons were not involved in the full range of the study, which included curriculum analysis, pilot testing, main testing, and data analysis. The study was planned and carried out within the cooperative research organization IEA (International Association for the Evaluation of Educational Achievement). It builds on the experience of earlier seven completed and reported studies and has benefited from the experiences of three other on-going studies with an earlier starting date.

### 3. Management of Study

Since the late 1950's, a number of educational researchers and research institutions have been working on an empirically oriented comparative research program. A small feasibility study was carried out by the IEA in 1959-1962. This was followed by a First Mathematics Study in the mid 1960's (with 12 countries/ school systems participating) and by six studies in 1970-1971. These covered Science (19 countries), Reading Comprehension (15), Literature (10), French as a foreign language (8), English as a foreign language (10), and Civic Education (10). On-going studies comprise a second mathematics and science study and a study of classroom activities. Since 1979, work has been carried out on an international study of written composition.

Like all IEA studies, the Written Compositions study has a complex management structure. The International Project Council at its annual meeting makes general policy decisions. Dr. Alan C. Purves from the University of Illinois at Urbana-Champaign is the Chair of the IPC. More specific planning is the responsibility of the International Steering Committee, chaired by Anneli Vähäpassi from Finland. Members are Thomas P. Gorman (England & Wales), Judit Kadar-Fulop (Hungary), Eva L. Baker (USA), Alan C. Purves (USA), Hildo Wesdorp (Netherlands, until 1985), Pai Obanya (Nigeria) and Raimo Konttinen (Finland). Sauli Takala (Finland) is the International Coordinator and Elaine Degenhart (USA) Deputy Coordinator. From January 1981 to fall 1984, the International Coordinating Center was located at the Curriculum Laboratory (UIUC). Since the fall of 1984 the coordinating of the project is managed jointly by the Curriculum Laboratory and the Institute for Educational Research, University of Jyväskylä.

National Research Coordinators constitute the International Study Committee, which has met a few times to discuss the implementation of the study according to common plans.

The costs of international coordination have been paid by the IEA with funds granted by the Spencer Foundation, the Universities of Illinois and Jyväskylä, the National Centers of England, Federal Republic of Germany, Hungary, Italy, Netherlands and USA, while the national costs of implementing the study are paid by each participating country.

#### 4. Context of the Study

##### Cultural context

One of the most important considerations the project had to deal with was that writing seems to differ, for example, from mathematics and science, in that the criteria of what is the correct or at least a good response may vary somewhat from culture to culture. In this respect, the writing study



resembles the earlier literature and civics studies more than any other earlier or on-going IEA studies. It would be presumptuous to maintain that there is only one single correct product as a response to a typical compositional task. A typical characteristic of all compositional tasks (not only in mother tongue instruction but in many other subjects as well) is that there are several acceptable approaches and several acceptable products.

There tends to be a fair degree of agreement within certain cultures, which are sometimes called interpretive communities, but cultures may differ in terms of

- a) what functions of writing are emphasized in school;
- b) what patterns of organization (style, rhetoric) are preferred and rewarded;
- c) what are appropriate topics to write about;
- d) what is the appropriate approach to writing (e.g., personal vs. impersonal, serious vs. humorous);
- e) what is the appropriate form of task instruction (e.g., mere title vs. detailed prompting);
- f) what is the appropriate time to allow students to write in response to an assignment;
- g) what are the appropriate criteria for rating compositions.

This essential cultural relativism is at the same time one of the major problems of the project and one of the most interesting and challenging aspects of the study (see Takala and Vähäpassi 1986).

#### Context of Current Research on Writing

Another contextual feature that the project needed to take into account was that the IEA written composition study was mounted at a time when there was a growing interest in the study of writing. There are several strands in current research on writing.

One line of research focuses on the role and impact of writing. The role of literacy in cognitive functioning and in societal development has been the object of theoretical and empirical studies (see, e.g., Bruner 1972, Gaur 1984, Olson 1977, Ong 1982, Scribner and Cole 1981, Vygotsky 1978).

Another research strand is interested in the functional relationships between speech and writing. More recent is the interest in exploring the relationships between reading and writing (e.g., Perera 1984, Rubin 1982, Takala 1982, Tannen 1982).

A third prominent research paradigm is part of the cognitive psychology movement and explores the cognitive processes related to writing. This includes, e.g., protocol analysis and computer simulation (Flower and Hayes 1980, Hayes and Flower 1983).

A fourth line of research focuses on the product of writing (text, written discourse). Different text structures (genres) are studied to see how discourse is organized (e.g., story grammar, narratology, argumentation patterns). Related to this is cross-cultural rhetorics, i.e., a study of culturally preferred modes of discourse organization (e.g., Rumelhart 1975, Kaplan 1966, Kaplan 1983).

A fifth research strand looks at the readers of written texts, especially how readers interact with and respond to texts. Related to this is, of course, the vast amount of literature on reading comprehension (e.g., Purves and Rippere 1968).

A sixth research paradigm has a more pedagogical orientation. It looks at what and how writing is taught in schools, what teaching practices seem to be effective (e.g., Hillocks 1984, Wesdorp 1982).

A seventh research line focuses on problems related to different procedures used in the rating of compositions: their reliability and validity and rating behavior in general (e.g., Cooper and Odell 1977).

Related to the above seven areas of research, there has emerged an interest in assessing the actual student performance in writing. In the United States the National Assessment of Educational Progress (NAEP) has conducted periodic assessments of writing since 1969. The Assessment Perfor-

mance Unit (APU) has also conducted four surveys of writing performance in England and Wales. Australia conducted a study of basic literacy and numeracy in the mid-1970's. Ontario and British Columbia carried out assessments in their provinces in the 1970's and several states in the USA have begun conducting statewide assessments.

However, when the IEA study was started in 1980, most of the participating centers had never carried out a large-scale empirical survey of writing in their school systems. For this reason, it was decided that the IEA study should prioritize highly the need to provide a good account of the teaching of written composition and a good national assessment of writing performance.

With regard to the seven research areas mentioned earlier, it is obvious that the study, besides its basic assessment function, can contribute most to the pedagogical study of writing, to cross-cultural rhetorics, and to the study of the rating procedures.

#### Context of Earlier Comparative Work on Mother Tongue Teaching

In comparison to second and foreign language teaching, there has been surprisingly little systematic international cooperation in mother tongue teaching. There are, for instance, several journals for L2 researchers and teachers which have an international authorship and readership. The international association of applied linguistics (AILA), which was founded in the mid-1960's, has been totally dominated by the L2 research community. The first session to be systematically devoted to issues of mother tongue teaching within the AILA world congresses was held in Brussels in 1984.

The mother tongue teaching profession appears to believe that since mother tongues differ, it is not possible to benefit very much from the experience of other countries. The general term "mother tongue" does not seem even to be used in some countries. Symptomatic of the current situation is

that, at a conference bearing the title of International Writing Convention, which was held in April 1985 in England, all or almost all papers presented were by researchers from the Anglo-Saxon region. A similar trend is seen in the International Reading Association whose membership is overwhelmingly from the USA and Canada.

There is an International Association of English Teachers but no working international association of mother tongue teachers. The need for such an organization and for a truly international journal of mother tongue education has been discussed within the IEA project although inquiries to publishers were not encouraging.

Yet, in spite of the fact that relatively little has been done internationally in the area of mother tongue teaching, some progress can be reported.

In the series of European curriculum studies, a volume was produced on the mother tongue teaching in the upper secondary schools in 18 member countries (Marshall 1972). This report was a useful source for the construction of our curriculum questionnaire with which we collected detailed information on curricular emphases. Unesco has also sponsored useful work in this area.

In the 1960's, there was intensive and interesting work and research done in Great Britain in primary education and in the teaching of the mother tongue. This attracted a lot of attention world-wide and led to concrete cooperation between British and American educators.

One somewhat surprising observation made during the IEA project is that the history of mother tongue education in general and of the teaching of written composition in particular is rather inadequately documented. In order to get a better idea of this historical context of written composition teaching, each National Center was asked to interview a number of experts and produce a brief national case study. This has proved a useful exercise both

nationally and internationally.

## 5. Design of the Study

### Purpose

Given the cultural and research context outlined in the preceding discussion, the IEA International Study of Written Composition was designed so that it seeks to accomplish the following tasks:

- (1) to contribute to the conceptualization of the domain of writing and particularly the domain of school-based written composition,
- (2) to develop a an internationally appropriate set of writing tasks and a system for assessing compositions which is applicable across countries/-school systems and across languages
- (3) to describe recent developments and the current state of instruction in written composition in the participating countries/school systems, and
- (4) to identify factors which explain differences and patterns in the performance of written composition and other outcomes, with particular attention to cultural background, curriculum and teaching practices.

### Populations and Samples

The study includes three populations: Population A was defined as students at or near the end of primary education and the self-contained classroom. Population B consists of students at or near the end of compulsory education, i.e. students who are in the last year of the shortest secondary program and those in longer programs who have completed the same number of years of schooling whether or not they have finished their program. Population C comprises students at or near the end of academic secondary school.

The recommended minimum samples sizes were 50 randomly sampled classes for Populations A and C and 100 for Population B. In most countries/school systems, a two-stage sampling design was used which involved random sampling of schools within strata and then random selection of mother-tongue classes within schools. The desired tolerance level for estimates of variable means has been specified as 5% to 7% of the standard deviation. To achieve tolerance levels smaller than 5% requires samples whose sizes would increase

project costs unreasonably, either by requiring that cluster sampling be abandoned in favor of simple random sampling or that the number of pupils /clusters included be increased substantially. On the other hand, to permit the tolerance level to go much beyond 7% leads to sampling errors that are too large to allow much confidence in the estimates obtained. The principles of sampling are described in detail in the subsequent publications.

The tested populations in each participating country/school system are presented in Appendix y, Table z. A detailed rationale for the tested populations and a full account of the defined and achieved samples will be given in the subsequent publications.

#### Independent and Dependent Variables

To fulfil the aims set for the study, information on a large set of independent variables was gathered. The major constructs underlying the independent variables of the study and their presumed interrelationships as well as their relationships with the dependent variable are illustrated in Figure 1.

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Data on the independent variables were collected by means of a National Context Questionnaire, National Case Studies, Expert Interview Schedule, Curriculum Questionnaire, School Questionnaire, Teacher Questionnaire, and Student Questionnaire. A detailed account of these will be given in the subsequent publications.

Since the purpose of this report is to give a detailed account of how the dependent variable, writing performance, was managed, we will devote the following chapters to the problems that had to be faced in the study in obtaining scores pertaining to writing ability. The following were the main

problems addressed:

### I. Problems related to the construction of writing tasks

- (a) What is the total domain of writing, especially school-based domain of written composition? This required conceptual analysis and synthesis.
- (b) What is the appropriate sample from the total domain for the students concerned? What sub-domains should be included in the set of writing tasks?
- (c) What is the appropriate system for specifying the tasks?
- (d) How should the actual writing tasks be formulated?

### II. Problems related to the allocation of writing tasks

- (e) What kind of tasks should be presented to each of the three student populations?
- (f) How should populations be linked through common tasks?
- (g) How many tasks should/can each student be asked to respond to?
- (i) If task rotation is necessary, how should it be done so as to maximize the information obtained and minimize problems that are related to rotation?

### III. Problems related to rating of student scripts

- (j) What rating system should be used (e.g., holistic, primary trait, analytical)?
- (k) How can a rating system be constructed which can be applied in a comparable way in all participating countries/school systems?

The guiding principle in the selection of tasks used in the study was to obtain an optimal balance between construct and curricular validity. To maximize construct validity, a considerable effort was made to define the domain of writing. Selection from the domain so that a high degree of match between teaching and tasks is guaranteed was guided by curriculum analysis and by an analysis of examinations.

Since educational systems offer instruction in several tasks and since students are taught several different kinds of writing in order to help them become competent and flexible writers, it was decided to sample student writing across tasks to cover the domain well. Getting several writing samples from each student was considered necessary also in order to be able to study the structure of writing ability. Data on the dependent variables were

collected by means of nine different task types, containing fourteen different task versions. There were three compulsory core tasks for each population plus one or two international optional tasks. Each national center could also develop national optional tasks. Thus each student wrote on at least three assignments representing different cells of the domain.

Once the domain specification system was worked out, there was the problem of sampling from the domain. On the basis of work on the specification of the domain of writing and on the scrutiny of the writing curricula and typical writing tasks/topics, nine different tasks were developed. They can be briefly described as follows:

(1) Tasks that emphasize the perspective of the writer

Task 5: write a personal story

Task 8: write a "free" composition on an ambiguous and evocative pictorial stimulus

(2) Tasks that emphasize the perspective of the topic

Task 2: summarize a text

Task 3: retell a story (in a shorter form)

Task 4a: describe a ritual mask

Task 4b: describe a process of doing something

Task 7: write a reflective essay

(3) Tasks that emphasize the perspective of the reader

Task 6: try to persuade the reader to share the writer's strong view about something

(4) Tasks that have several perspectives

Task 1a: describe a desired bicycle to an uncle who wishes to buy one as a birthday present

Task 1b: describe oneself to a penfriend whom the student is going to visit so as to make it possible for the penfriend to identify the student as he comes to meet the student

Task 1c: write a note to the principal/headmaster canceling a scheduled meeting

Task 1d: leave a message at home telling where the student has gone after school



Task 1e: write a letter applying for an advertised summer job

Note that the relative writer-reader social status and the topic is varied systematically.

Task 9: write a letter to a younger student who is coming to study at the same school as the writer, telling the new student how he/she should write in the new school to get good grades.

If we focus on the purpose of the tasks, we can see that Tasks 1, 2, 3, 4 and 9 have a predominantly informational purpose. The expressive purpose is dominant in Tasks 5 and 8. Tasks 1e and 6 have a persuasive purpose. Task 7 has an explicative/interpretive purpose.

If we look at the cognitive structure of the tasks, we might suggest that Tasks 1c, 1d, 2, 3, 4b and 5 have a structure based mainly on a temporal organization (an account of events). Tasks 1a, 1b and 4a have a structure based mainly on a spatial organization (an account of the physical characteristics of objects). Tasks 1e, 6, 7, 8 and 9 have a structure based mainly on a logical organization (an account of ideas and thought structures). Other classifications are, of course, possible. For an example of actual tasks, see Appendix (Figure 5).

Limitations of testing time made some task rotation necessary. Within the constraints of being able to link students within populations and across populations, task rotation was based on the following principles: (a) each student should write on as many different types of tasks (different cells of the domain) as feasible, (b) rotated tasks should take approximately the same amount of writing time.

In spite of task rotation (see Figure x), populations were linked so that in most cases (11 out of 14), the same task was common to two popula-

tions (A and B, or B and C). One task was the same for all three populations (Task 6: argumentative/persuasive task). Two tasks were meant for Population A only.

Similarly, students were linked so that there was one common task within all three populations, i.e., all students wrote on one common task and the other two tasks were randomly rotated in class. This common task was Task 5 (narrative/story) for Population A, Task 9 (descriptive/letter of advice) for Population B, and Task 6 (argumentative/persuasive composition) for Population C.

Within each population, and partly also across populations, the task order was standardized so as to control the possible task order effect.

##### 5. Reporting

There will be both international and national reporting on the findings of the study. Three international reports are planned. The first volume will deal with the dependent variable. It will give a detailed account of the problems and issues involved in constructing an international set of writing tasks and in scoring student scripts using an internationally agreed-upon scoring procedure. The report is expected to be in manuscript form in early 1986.

The second volume will give a detailed description of the context and practices of writing instruction in the participating countries. The third volume will present the main results of the study. This will probably be a set of parallel national portraits with some international comparisons. The extent of comparisons will depend on the degree to which the scoring is, in fact, comparable in the participating countries.

After seven years of work on the project, we will probably not be able to make a statement like the one made by Rollo Walter Brown, a professor of

rhetoric and composition in Wabash College, who spent a year in France in 1912 and wrote a book "How the French Boy Learns to Write". In the Introduction, Brown states

...the French boy has for a long time borne the reputation of being a good writer; and any reasonably thorough inquiry into the matter will convince one that the reputation is well merited. There may be some who doubt whether the French boy writes as well to-day as he did twenty or thirty years ago - although I found few French educators who believe there has been any noticeable deterioration among boys of the same native ability and social class - yet according to American standards, he writes well. If a great many specimens of written work done in different parts of France form a basis for judgment, he writes with greater grammatical correctness, sharper accuracy of thought, surer and more intelligent freedom, and greater regard for good form and finish, than does the American boy of the same age.

We will be pleased with a great deal more modest comparisons.

#### 6. Some Concluding Remarks

There are plans to store a representative sample of student scripts in an international student text corpus. This corpus will be created with the financial support of the Dutch foundation Stichting voor Onderzoek van het Onderwijs (SVO). Several signs indicate that there is growing interest in moving from the assessment stage to a stage, in which we can take a close look at the compositions themselves. A number of cognitive, linguistic, rhetorical, cross-cultural, etc., studies have been tentatively sketched during recent meetings.

One possible area of research is a more in-depth evaluation of student performance. For instance, work could be continued to elaborate the criteria of what constitutes minimum satisfactory performance on the large variety of tasks used in the study. A panel of teachers and other experts could try to establish what elements must be included in the letter of application for it to be satisfactory. The scoring guides used in the project are a good starting point but each country should try to proceed further in the definition of

criteria. Work along these lines is planned using the Dutch data.

Another approach worth exploring concerns standard setting. One possible method is to provide a set of scripts to a panel and ask them to indicate which ones are minimally satisfactory and which are not. Together with the scores established earlier, this information would help to establish a fairly strong empirical basis for a global evaluation of student performance. This approach will be tested at least with the Dutch data.

Related to the above two approaches are various quantitative studies on the basis of the representative corpus of student scripts. The corpus makes it possible to study students' spelling, use of sentence types, use of vocabulary and their development across the three populations. Preliminary work along these lines has been done with the New Zealand main testing data. The German pilot data has been used to identify different writing styles using the method of Configurational Frequency Analysis. Various error analyses could be used, if so desired, as an empirical basis for recommendations for remedial measures and for how to take errors into account in marking.

Another line of study would focus on writing as a construct. The fact that all students were assigned three different tasks (in some countries more than three tasks were used) makes it possible to study the structure of writing ability. To what extent is writing a general ability, or to what extent is performance (including errors) task-specific?

The data make it possible to conduct a variety of content analyses. For instance, Task 6 (the argumentative task) can be used to get an idea of what issues occupy the minds of young people in various parts of the world and how they argue about them. By way of example, it can be mentioned that the Finnish data, using the argumentative task, is being used to study students' world views (perceptions of reality) using mainly a philosophical approach. That study will be followed by an examination of how students' argumentation

develops over school years.

Italy collected data also on students' reading comprehension. This will make it possible to study with comprehensive data the relationship between reading and writing. In Hungary the data for the second science study and for the writing study come from the same students. This provides an opportunity for another interesting comparison, reminiscent of C.P. Snow's two cultures hypothesis.

The fact that a large amount of student scripts were marked in more than ten countries and using two or three slightly different rating designs makes it possible to conduct several kinds of studies of rater behavior.

The exceptional student script corpus to be created with the financial support of the Dutch Foundation for Educational Research (SVO) will also make it possible for the international research community to do different kinds of cross-cultural and cross-language studies. In fact, it seems to us that the adequate utilization of the data collected in the writing study is limited only by the scientific imagination.

We have established close contacts with several colleagues in many other countries. We hope that the IEA network which has been created will make a substantial contribution to the newly emerged interest in enhancing cooperation within the mother tongue teaching and research profession in the world.

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