

Research Series No. 66

HOW DO TEACHERS SPEND THEIR  
LANGUAGE ARTS TIME?

Laura Roehler, William Schmidt,  
and Margret Buchmann

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## Institute for Research on Teaching

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## Abstract

A three-month observational study was conducted to determine (1) the time allocated to each subject matter in six elementary-school classrooms and (2) the specific time allocations for skills within the language arts and reading curriculum. Seven observers recorded the instructional activities of the teachers through weekly full-day observations. The observational data were recorded at the individual level--both for the teacher and the students--for an entire school day. All classroom activities were coded. The results show that the amount of time spent in language arts instruction, especially in writing, varied considerably across the seven classrooms. In some classrooms, on certain days, as much as three-fourths of the time was spent in language related instruction. Integration also varied in its frequency of occurrence across teachers.

## HOW DO TEACHERS SPEND THEIR LANGUAGE ARTS TIME?<sup>1</sup>

Laura Roehler, William Schmidt,

and Margret Buchmann<sup>2</sup>

Recent research shows that, in general, the more time students spend on a task the more they learn (Wiley & Harnischfeger, (Note 1)). These results emphasize the need for a greater understanding of the allocation of school time and the effects of efforts to improve time effectiveness by combining basic skills objectives in reading and language arts with content goals through the use of subject-matter integration. Language arts and reading are particularly appropriate subjects for integration efforts because of the universal content-application of such skills (e.g., punctuation, comprehension, sequencing, spelling).

The study reported here was conducted to provide descriptive information about the time allocated to each subject matter in six elementary classrooms, and the specific time allocations for skills within the language arts and reading curriculum.

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<sup>1</sup>Parts of this paper have been presented at the American Educational Research Association meeting, San Francisco, 1979; the International Reading Association meeting, Atlanta, 1979; and the National Council of Teachers of English meeting, Kansas City, 1978.

<sup>2</sup>Laura Roehler and William Schmidt are co-coordinators of IRT's Language Arts Project. Margret Buchmann is a senior researcher working on the project. The other members of the Language Arts group are Joe Byers, Sue Wildfong, Donna Hamilton, Barbara Diamond, Frank Jenkins, Dave Solomon and Bob Hill.

### Background Related to the Study

Educators and those concerned with education are increasingly uneasy about and confused with the poor quality of adult and student use and understanding of the English language. For instance, the National Assessment of Education Progress (Ashman, 1976), which was based on a population of students aged 9, 13, and 17 years and of adults between the ages of 26 and 35 years, resulted in the following findings:

1. Relatively few young Americans can read and interpret graphs, maps, or tables.
2. Less than half of the nation's 17 year olds and young adults can accurately read all parts of a voting ballot.
3. Only 14% of the adults tested could write letters with no punctuation errors.
4. Only 57% of the adults tested wrote adequate directions for making or doing something.
5. Only 49% of the adults tested composed acceptable letters for the purpose of ordering a product.

This report is substantiated by other nation-wide projects such as the Human Resources Organization (Sticht, Note 2) which found that 34% of those surveyed could not complete a Medicaid application, while the Adult Performance Level Study (Note 3), conducted from 1971 to 1975, reported that 18.9 million adults were unable to cope successfully with writing tasks.

Within the American educational system, students' encoding language abilities (writing and speaking) and decoding language abilities (reading and listening) show either a decline or insignificant gains over recent years despite new curricula, new instructional materials, new tech-

nologies, and teacher aides. There are declining levels of verbal comprehension on the Stanford Achievement and Scholastic Aptitude Tests (Sheils, 1975), and Flanagan (1971) has found that, after 12 years of schooling in communication skills, many students appear to have little to show for it.

While teachers search for ways to reverse the "poor-pupil-performance" trend in the language arts, they are simultaneously uneasy and confused about time factors that complicate curriculum decisions. The sheer number of concepts, skills, and principles to be taught in the standard subject-matter areas (e.g., history, science, math) is growing at a tremendous rate, while the pressures to teach additional subjects (e.g., sex education, career education, consumer education) limit the amount of time that can be spent in any single area.

As the complexities and pressures mount and the demands for better teaching and better results intensify, the teacher responds in frustration with "How can I ever do all this?" and "Where do I find time?" Furthermore, as if to add insult to injury, the only answer usually given right now is quite simply, "We don't know."

A major effort of the Language Arts group has been to determine ways of dealing with the problem of insufficient time as it affects language-arts instruction in elementary schools. Specifically, the possibility of increasing instructional time by integrating the content of the language arts with other subject matters has been explored. However, before the parameters of integration can be fully understood, there is a need to know what ways time is spent in language-arts instruction. The purpose of this paper is to present data on this issue.

### Procedures

Six elementary classrooms from suburban areas and small towns around Lansing, Michigan were the sources of data collected during this 12-week study. The six classrooms included three self-contained second-grade classrooms; one second/third-grade combination classroom, which was part of a four-classroom multi-aged grouping situation, team taught in an open space; one fifth-grade classroom, which was partially self-contained with departmentalized mathematics and reading instruction; and one fourth/fifth-grade combination classroom, which was team taught by two teachers working with 50 students.

Teachers recorded their instructional activities through daily self-observation logs and weekly planning schedules for the 12-week period. The logs included five types of information: (1) the beginning and ending times of all activities, (2) the types of grouping involved in the activities, (3) the purpose of activities, (4) the teaching strategies used in the activities, and (5) the materials and content of activities.

In addition to the information from the teachers' logs, information was provided by outside observers who conducted weekly full-day classroom observations, giving special emphasis to recording the instructional statements made by teachers.

The combination of these two data collection procedures provided a complete, minute by minute description of classroom activities in each of the six classrooms studied.

The data were coded for each child in each classroom according to the length of time segments, the group size, teacher supervision, and the subject area involved. The subject areas of language arts and reading were divided into various subcategories such as spelling, penmanship, punctuation, usage, composition, oral communication, fiction

writing, letter writing, text analysis, word analysis, and so on. Data were obtained for 1,426 cases; a case is defined as one student's time record for one school day.

The data were analyzed to determine the way time was allocated to the different subject matters for each child. Special attention was given to language arts and the way in which language arts was integrated with other subject matters. The time spent in activities was described by the mean time across observations and summarized as portions of the typical school day spent in various instructional activities for the typical child in each of the six classrooms.

#### Results: Instructional Versus Non-Instructional Time

The highly structured nature of the observation records facilitated a detailed analysis of school-day time allocations in the elementary classrooms studied. The detailed accounting of every minute during the day was particularly useful in helping to identify what we have termed non-instructional time, that is, those times when the opportunity for learning or instruction was not present.

An even finer definition of non-instructional time was obtained by distinguishing between fixed non-instructional time and teacher-controlled non-instructional time. Activities classified as fixed included recess, lunch, and breaks such as fire drills or outsiders interrupting the class. Activities classified as teacher-controlled included transitions between instructional activities, beginning and ending activities, bathroom breaks, and social activities.

Activities were classified as instructional time if students had the opportunity for instruction or learning in any subject area including language arts, reading, mathematics, science, social studies, music, art, physical education, and seat work involving a mixture of these



subject matters.

Many percentages of non-instructional and instructional time are presented for each classroom in Figure 1. For all classrooms, the school day lasted 360 minutes and each had 30 minutes for lunch with the exception of classroom six, which had a 60-minute break.

Non-instructional time in the six classrooms varied from 27% to 42% or from 97 to 150 minutes of the school day. There was no correlation between either student age or type of classroom and the amount of non-instructional time.

A closer look at non-instructional time classified as either fixed or teacher-controlled does indicate an apparent relationship between increased teacher-controlled non-instructional time and increased overall non-instructional time. This suggests that although non-instructional time for fixed routines is relatively consistent across classrooms, teachers do impact on the total amount on non-instructional time. For example, when the lowest amount of teacher-controlled non-instructional time is subtracted from the highest amount and multiplied by the number of school days in a year, the students in one class are found to have had  $5\frac{1}{2}$  more weeks of available instructional time than those in other classrooms.

The highest amounts of non-instructional time were recorded in a self-contained second/third-grade split classroom (Classroom 1) and in a team-taught fourth/fifth-grade split classroom (Classroom 6). The lowest amounts of non-instructional time were found to be in a self-contained second-grade class (Classroom 3), a team-taught second/third-grade class (Classroom 2), and a fifth-grade self-contained class (Classroom 5).

These findings are not reported to suggest that all non-instructional time is wasted time. Some is obviously essential to the functioning of

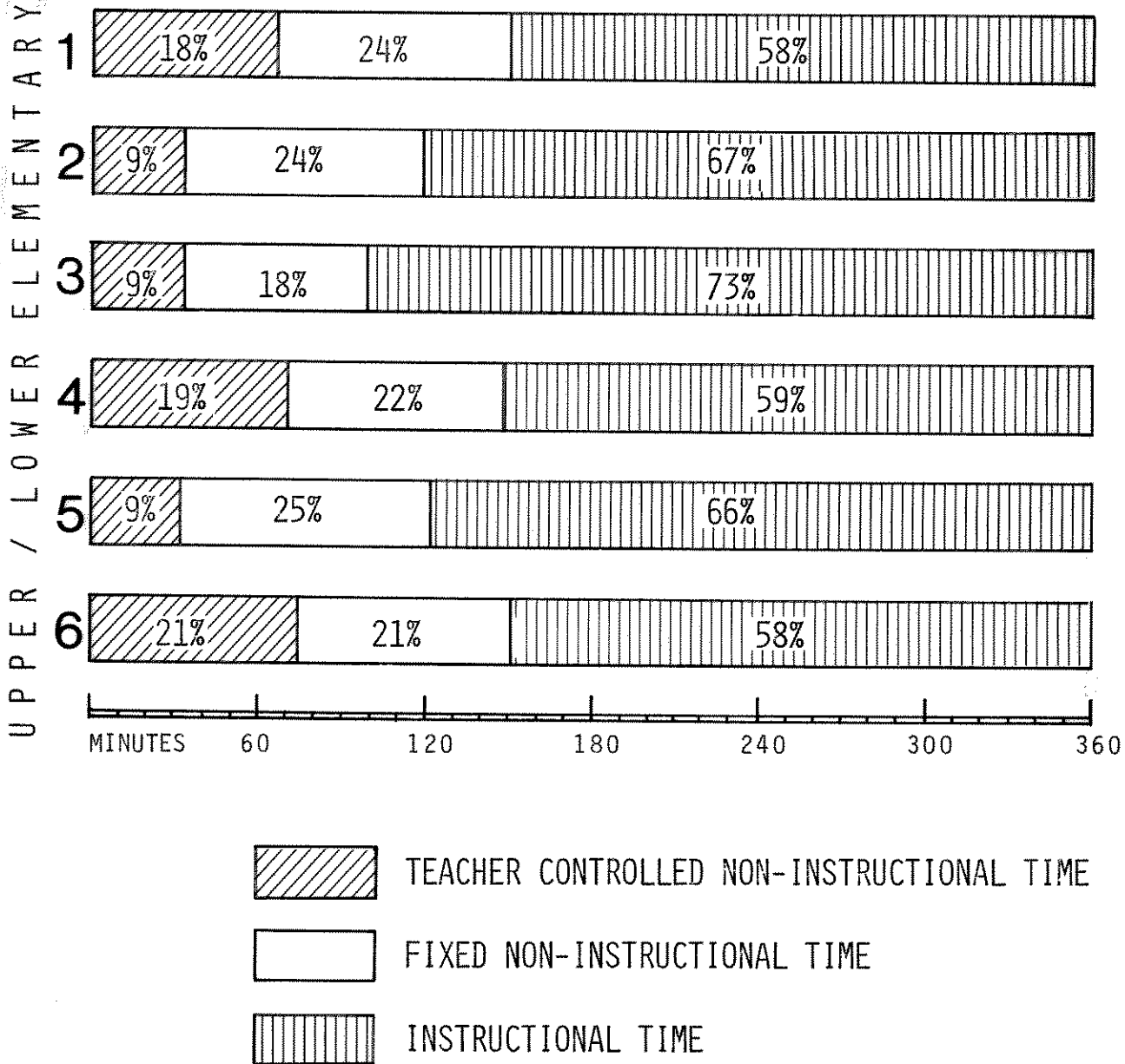


Figure 1. Time spent in school day.

any classroom. But the large variations in teacher-controlled non-instructional time certainly have interesting implications and are worthy of further study.

The creative use of non-instructional time, for example, is well worth exploring. In one lower elementary-school classroom we observed, the teacher decreased the amount of transition time between two subject areas by beginning an orally read story that included creative drama. The students could join the story group when they finished putting away material from the previous activity. The observer noted that the students moved more quickly through this transition than through other transitions. The story then led into the next instructional activity.

#### Subject Matter Allocations of Time

The breakdown of instructional time (Figure 2) indicates that the largest amount of instructional time is spent in the combined subject areas of language arts and reading, ranging from 38% to 53% of the typical school day. This amounts to a variation of from 80 minutes on the average in one classroom to 126 minutes on the average in another. Overwhelmingly, the teachers we observed spent more time in language arts and reading than in any other subject areas.

The time spent in mathematics also varied across the classrooms. Mathematics accounted for 12% to 24% of the instructional activity time, or from an average of 23 to 63 minutes of the total school day. Another interesting finding about mathematics is that the average amount of time spent on the combined areas of physical education, art, and music approximated and sometimes more than equalled the average amount of time spent on mathematics. Classroom 5, the exception, had 12% of the instructional time spent in mathematics and 6% spent in art, music, and

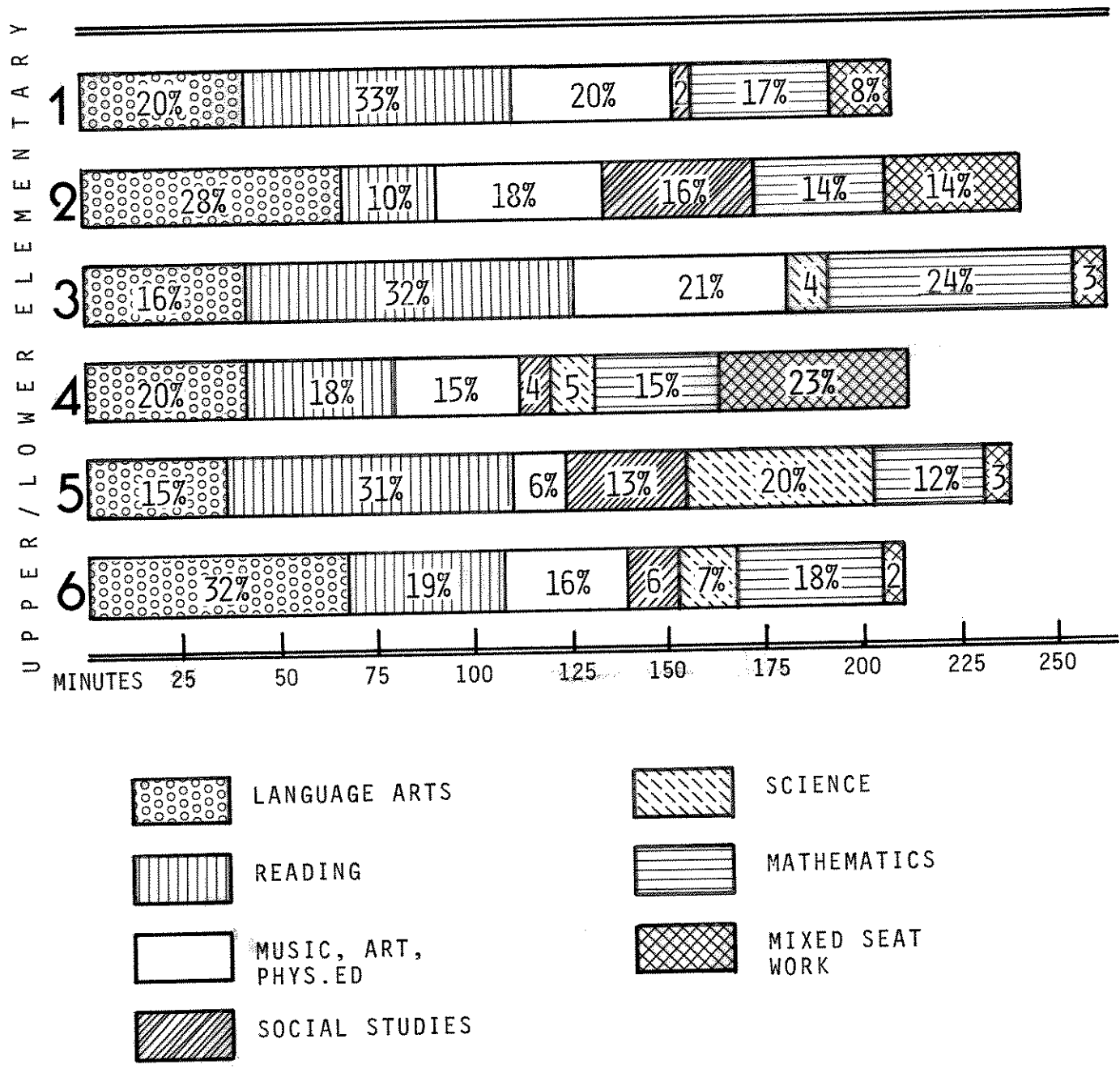


Figure 2. Instructional activity time.

physical education. Classroom 5 was the only classroom where the subjects of music, art, and physical education were taught by the classroom teacher. In all of the other classrooms, these subjects were taught by specialists who had fixed instructional times. Classroom 3, the class with the lowest amount of non-instructional time, had the highest amount of time spent in math (63 minutes or 24% of the typical school day).

The combined basic-skill courses of reading, language arts, and mathematics accounted for from 52% to 72% of the instructional activity time. From 6% to 21% of the instructional activity time was spent in art, music, and physical education combined. Very little time was allocated to science or social studies in any of the classrooms studied; some classrooms had no time allocated to these subjects.

#### Time Allocations Within Language Arts

The second phase of our analysis was performed to generate specific descriptive information about the allocation of time devoted to particular skills within the language arts and reading curriculum. As noted above, the largest portion of the instructional day was directed toward language arts and reading in each of the 6 classrooms studied. This gross labeling masks important differences between teachers with respect to the decisions they make regarding time allocation to specific skills.

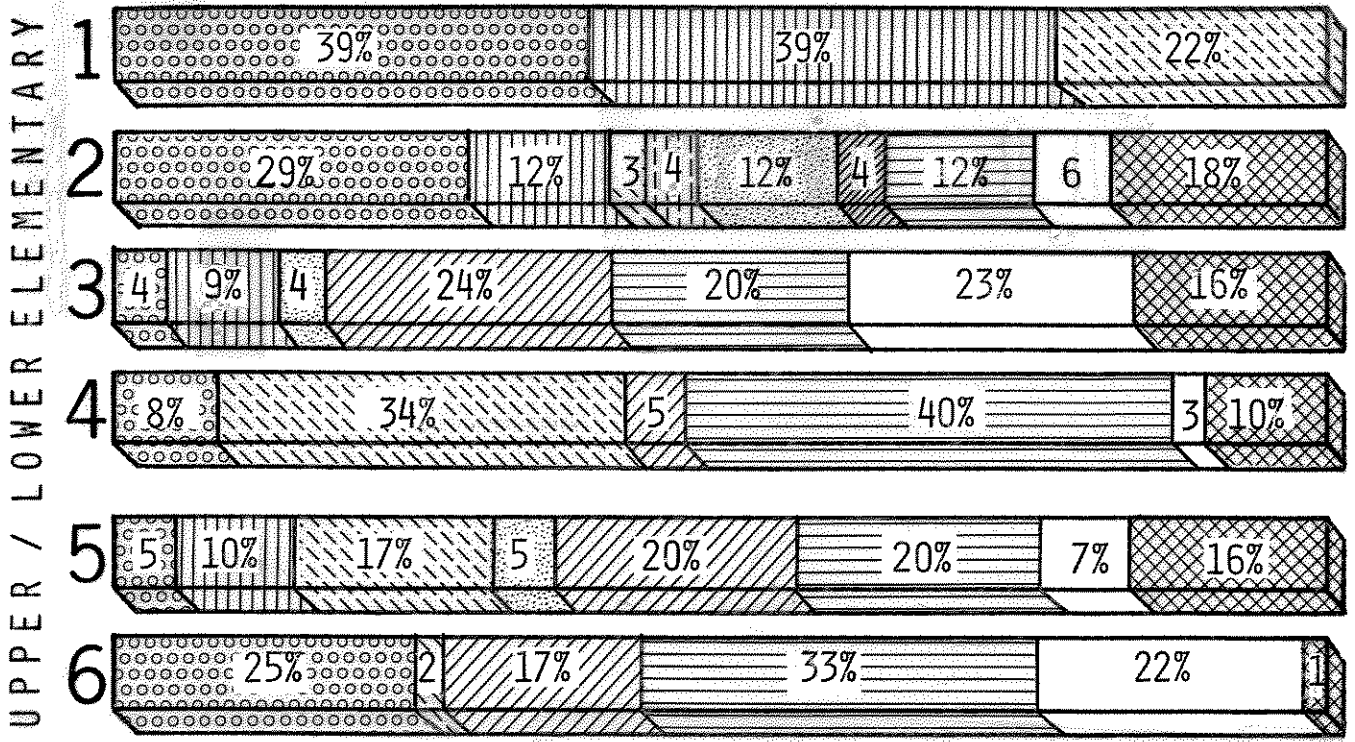
In an effort to more fully capture these differences, the language arts/instructional time was subdivided to include (1) oral communication, and (2) written communication, which was further divided into penmanship, punctuation, grammar/usage, sentence completion, a sentence or more composition, information gathering, the study of literary forms, and unclassifiable. Oral communication included both speaking and listening. Examples of oral communication are sharing time, puppet

shows, and creative drama. In written communication, sentence completion included the time that students were asked to fill in one or more words to complete a sentence, while sentence composition included the time that students were asked to create at least one complete sentence. The subcategory of information gathering stands for the instructional activity time that was spent in study skills such as library work and dictionary usage. The study of literary forms includes the time that the teacher spends on different forms of literature such as poems, folk tales, or realistic fiction. Unclassifiable included any language arts instructional time that could not be accounted for in the above subcategories.

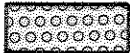
The amount of instructional time in language arts for each classroom was aggregated for analyses into four categories: (1) oral, (2) mechanics of writing (included here are penmanship, spelling, punctuation, grammar/usage and the study of literary forms, (3) written composition and related activities (included here are information-gathering skills, sentence completion, and sentence composition), and (4) unclassifiable. The analysis of time allocation for these four categories is presented in Figure 3.

There is variation among classrooms in the amount of time devoted to these specified activities. In lower elementary classrooms, for example, the time allocated to composition ranges from 0% to 40% of the total time available for language-arts instruction. Similarly, in the upper elementary-school grades, oral-communication activities accounted for 25% of the language-arts instruction in one classroom and only 4% in another classroom.


The lack of consistency in emphasis between classrooms suggests two conclusions. First, these differences dramatically illustrate the considerable autonomy that elementary classroom teachers exercise in determining the language arts curriculum of students in their classroom.





ORAL

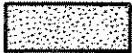
 ORAL COMMUNICATION

MECHANICS OF WRITING

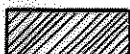
 PENMANSHIP


 SPELLING

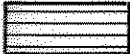
 PUNCTUATION


 USAGE

WRITING COMPOSITION

 SENTENCE COMPLETION

 LITERARY FORM

 COMPOSING

 INFORMATION GATHERING

UNCLASSIFIABLE


 UNCLASSIFIABLE

Figure 3. Types of language arts instruction.

And second, there appears to be very little agreement between teachers relative to which activities should receive larger allocations of instructional time.

A further examination of the time allocated to language-arts activities reveals some interesting results, as seen in Figure 3.

Classroom 1 had no writing instructional time spent in the composing process, just time in spelling and punctuation. Classroom 2 had 12% of the language arts instructional time spent in each of the areas of penmanship and spelling with small amounts in grammar and punctuation. Most of the language-thinking process instructional time (12%) was spent in the composing process of the written mode. Classroom 3, with almost twice as much instructional time spent in the mechanics of writing as the language-thinking process, shows wide variation in types and amounts of time. Classroom 4 had slightly more time (40%) spent in the composing area of the language-thinking process, but 34% of the time in the mechanics of writing was spent in spelling, with only 5% in literary form. In Classroom 5 the the highest amount of instructional time in the language arts was spent in literary form (20%) and composing (20%).

Classroom 6 had fewer subcategories in the language-arts instructional time than any other classroom. Large amounts of time were spent in composing (33%) and information-gathering activities (22%). Over half of the instructional activity time in language arts was spent in the language-thinking process.

Reading was also divided to include the following subcategories: no explicit analysis, word analysis, word meaning, and text analysis. In no explicit analysis, students simply read for pleasure or information; they were not instructed. In word analysis, students were directed to decode or figure out how to say a word. Word meaning focused on the definition or meaning of a word, while text analysis focused on the



meaning of a text or selection.

Figure 4 illustrates the typical amount of instructional time spent in the different reading activities in each of the classrooms. In all the classrooms, in the activities that were classifiable, the highest amount of time was spent in the subcategory no explicit analysis, where students read unassisted. While the range in terms of no explicit analysis in reading instructional time was wide, 24% to 74%, the actual amount of minutes ranged from 11 to 31. On the other hand, two classrooms spent no reading instructional time on word analysis, while the other four classrooms ranged from 5% to 13% (from one to 10 minutes) in terms of reading instructional time. Additionally, no instructional time was spent in word-meaning activities in four of the observed classrooms. Classroom 4 spent 3% of the reading time, or one minute per day, in word meaning instructional activities, and Classroom 3 spent 8% of the reading time, or seven minutes per day.

Finally, all classrooms spent some reading instructional time on text analysis. The range was from 1%, or one minute on the average per day, to 33%, or 13 minutes on the average per day.

Variations in the Language-Arts Time  
Allotted to Individual Students Within a Classroom

The data reported so far have been in terms of the typical amount of time spent by an average child within a classroom over a period of days. The variation in minutes spent by individual children in reading and language arts within a classroom is also important. This is shown in Figures 5 and 6. The standard deviation gives an indication of the variation in minutes for the class and day. The minimums and maximums illustrate the full range of instruction provided for a classroom on a given day.

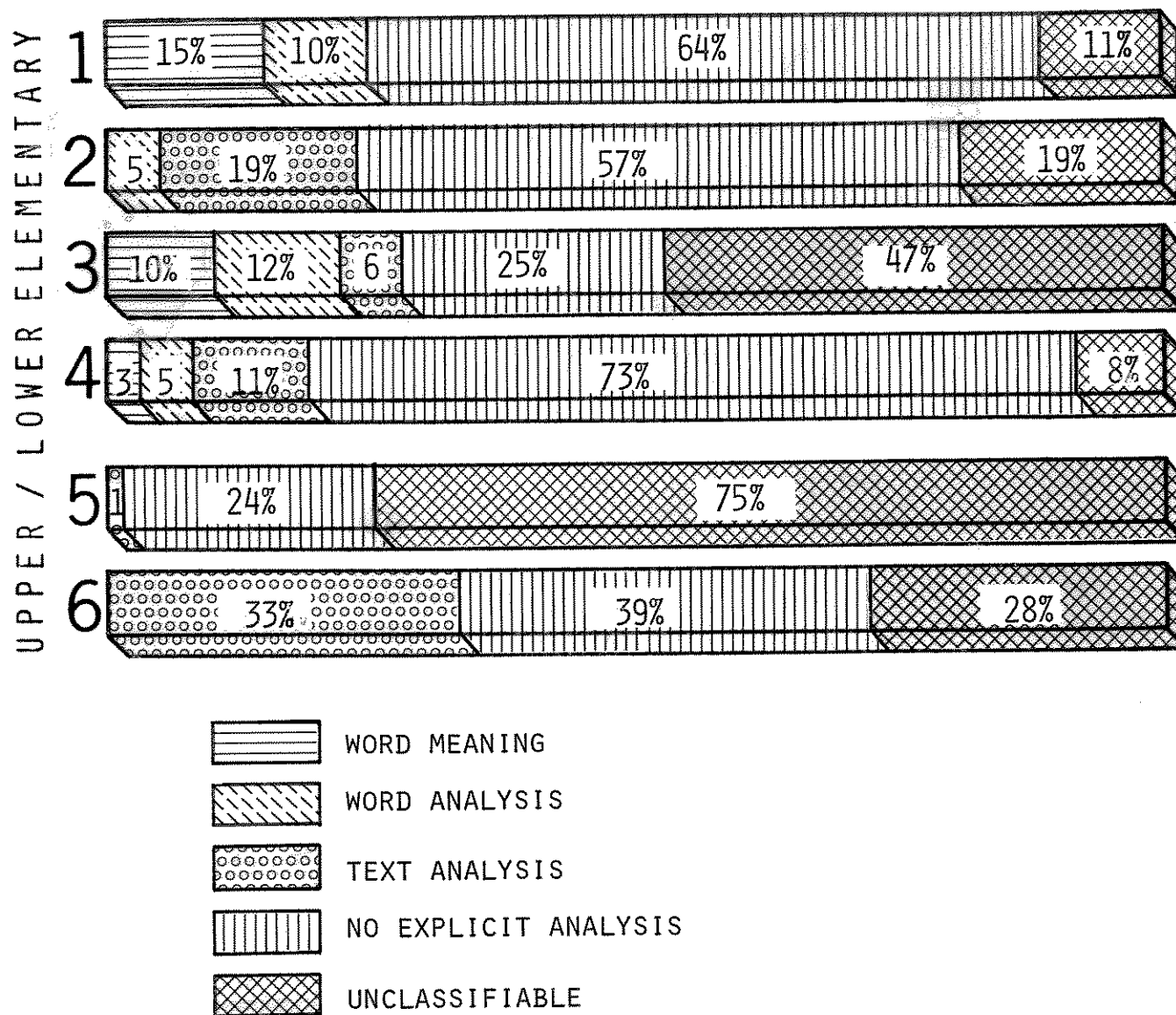


Figure 4. Types of reading instruction.

Figure 5 shows the typical variations among students in time spent on language arts in the lower elementary grades. Classroom 1 had the smallest variation (38 minutes) and Classroom 6 had the widest variation (81 minutes).

The typical variations in reading instruction, as seen in Figure 6, are slightly different from those in language arts. Classroom 6 had the smallest variation (27 minutes) and Classroom 3 had the widest (90 minutes). Instructional time in reading on a given day ranged from 16 minutes for some students to 102 minutes for others.

Recent research shows that the more time students spend on a task, the more they learn. It would seem, then, that if non-instructional time is decreased, instructional time will increase, and that will result in increased student learning. However, there is still much to be known about non-instructional time. Do certain types of classroom organization require more of this type of time? Does grade level make a difference? Do teacher styles make a difference? Do certain curricular activities necessitate more non-instructional time than others? Are there optimal levels of non-instructional time? If so, what are they?

The findings from this study will form the basis for further studies which will explore ways to increase the quality and the amounts of instructional-activity time. This future work will focus primarily on the integration of the language arts with other subject matters as a way to increase the amount of instructional time in these areas.

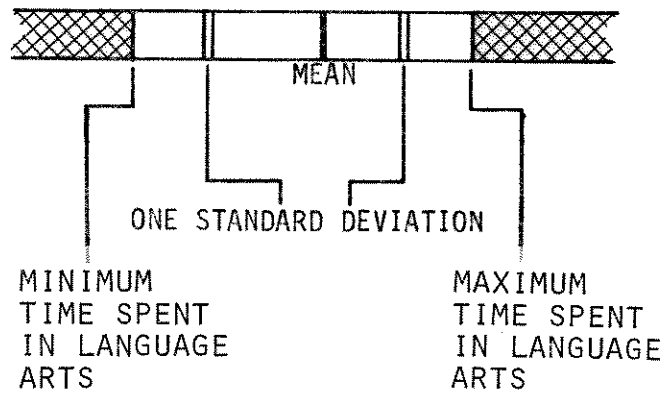
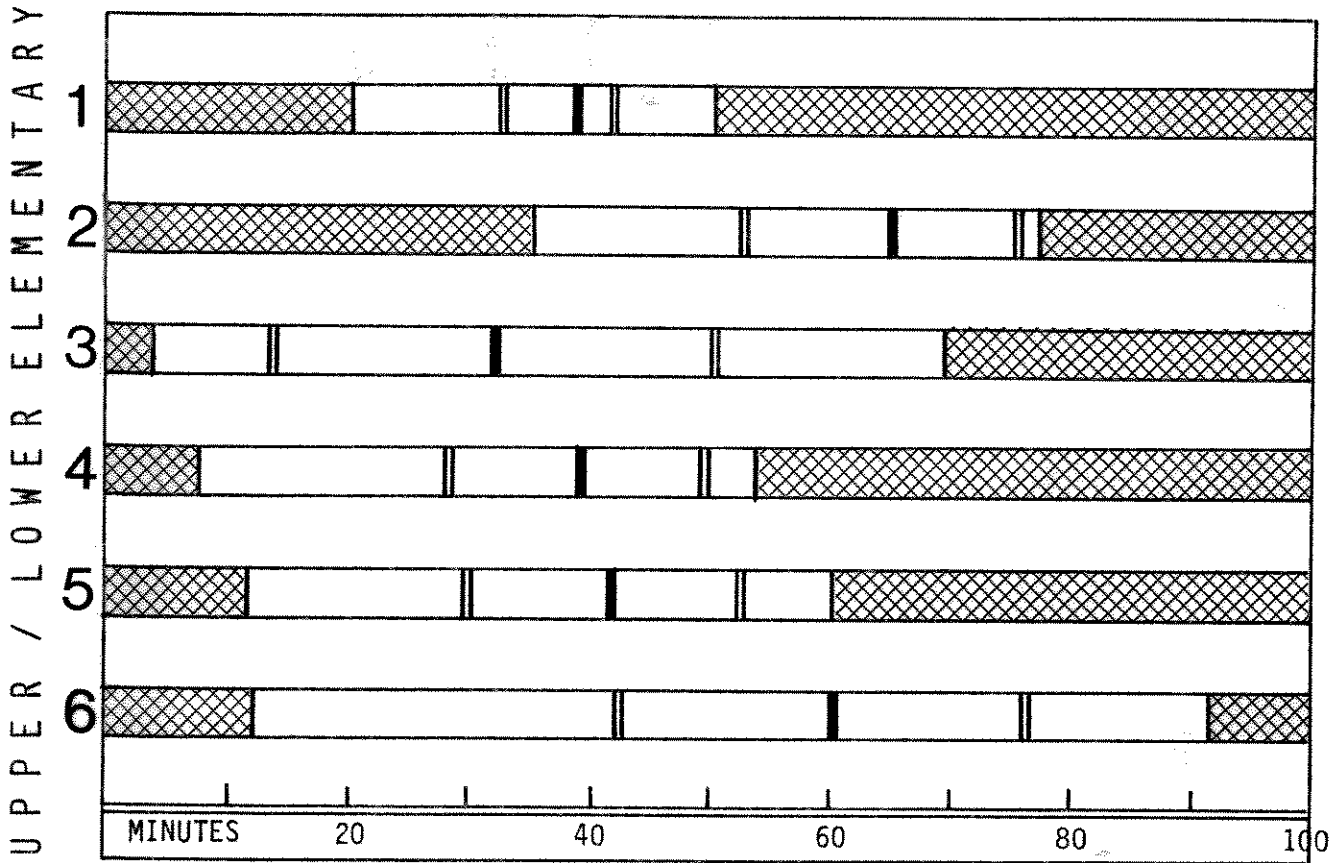


Figure 5. Typical variations in the amount of time spent in the language arts.

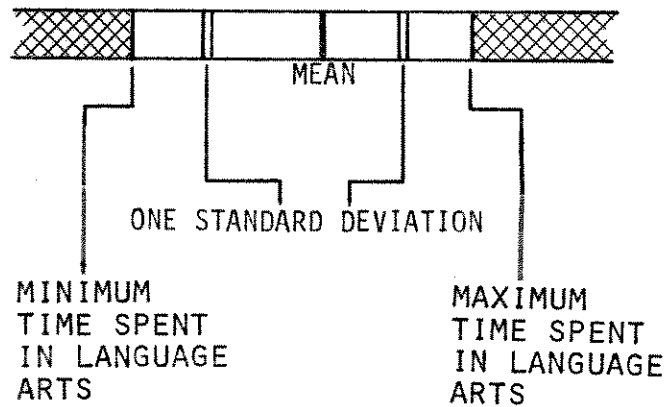
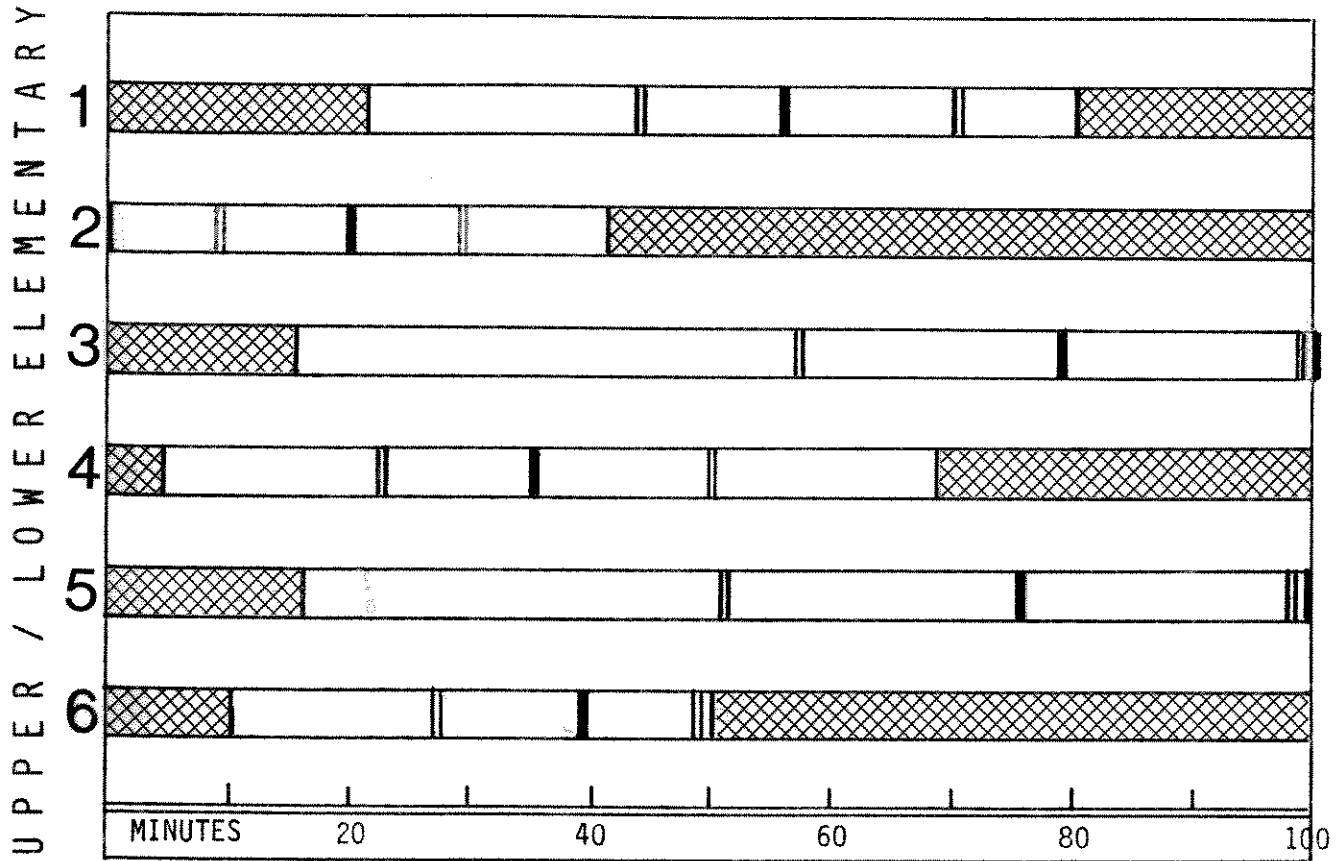


Figure 6. Typical variations in the amount of time spent in reading.

Reference Notes

1. Wiley, D. E. and A. Harnischfeger. Explosion of a myth: Quality of schooling and exposure to instructional, major educational vehicles. Studies of Educative Processes (Rep. #8). Chicago: M. L. Group, CEMREL, Inc., February, 1974.
2. Sticht, G. (Ed). Reading for working: A functional literary anthology. Washington, D.C.: Human Resources Research Organization, 1975.
3. Adult functional competence: A summary. Austin, Texas. University of Texas, March 1975.

References

- Ashman, J. A report on national assessment in seven learning areas. Today's Education, 1976, 64: 63-64.
- Sheils, M. Writing Crisis, Newsweek. December 8, 1975. p. 32.
- Flanagan, J. The psychologist's role in youth's quest for fulfillment. Educational Psychologists, 1971, 8: 1-2.

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