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A STUDY OF GROUP SIZE AND THE ENGAGED ACTIVITY OF STUDENTS IN THE
SECOND-LANGUAGE CLASSROOM

by

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(ABSTRACT)

One of the primary goals of second-language study is to build language proficiency. The use of small-group and pair instruction has been promoted as an alternative to large-group instruction and as an avenue for the accomplishment of the goal of becoming proficient in a second language.

In this study, three elementary-school French classes were observed and videotaped on five occasions each for a total of 15 observations. Analysis involved determining if students were engaged, and whether they were engaged in writing, speaking, listening, thinking, and reading. It was also noted whether or not students were participants in one of three group contexts: pairs, small groups, or large groups. Video-recordings were transcribed and coded using the Foreign Language Observational System (FLOS) developed by Nerenz and Knop (1982).

Of the 6,800 occurrences coded for data analysis, 98% ($n = 6,674$) were instances when students were engaged in the large-group context where more writing (32%, $n = 2,116$)

occurred than any of the activities identified for investigation. The greatest amount of nonengagement occurred in the large group and consisted of managerial activities, for instance, waiting for the teacher to distribute materials 32% ($n = 40$), interim transitional activities 20% ($n = 25$), and offtask when students were not engaged with a classroom curricular task (30%, $n = 23$).

An ANOVA detected that statistically significant differences ($p < .01$) exist within the small [$F(4,68) = 5.53$] and large [$F(4,68) = 13.26$] groups for time spent engaged among the activities under investigation: writing, speaking, listening, thinking, and reading. No differences were found within the pair group among the activities in the study ($F = 0.84$). Further data analysis indicated statistically significant ($p < .01$) differences among the groups on time spent writing [$F(2,34) = 22.90$], speaking [$F(2,34) = 5.59$], thinking [$F(2,34) = 10.88$], and reading [$F(2,34) = 9.58$]. No differences were found between the groups for the listening activity ($F = 0.96$).

Duncan Post Hoc Comparison Tests were used to determine where there were significant differences between the means for each main effect. An examination of the results of the Duncan Tests revealed that in this study students were most often instructed in the large-group context. The tests also showed that there was

more writing than speaking, listening, thinking, or reading done in the large group. More reading than speaking, listening, or thinking was done in the small group.

In sum, students in this study were more involved in the large group and did more writing than any of the other four activities. In the small group, there was more reading than speaking, listening, or thinking, and more writing than thinking.

Dedicatus

In Memoriam

Mrs. Rachel F. M. Crumwell Ross

January 16, 1926 - January 26, 1989

For all the love and nurturance that you have given me through the years, for being the best mother, teacher, and friend that I will ever know, and for devoting 36 years of your beautiful life to public education as a teacher and assistant principal, I dedicate this dissertation to you.

"Thou shalt live as long as I have breath."

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"No man is an island, no man stands alone..."

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I. THE PROBLEM

Introduction

Group work has been suggested as an effective technique for achieving certain kinds of intellectual and social learning goals. Omaggio (1986), for example, promotes it as a superior technique for conceptual learning, creative problem solving, and increasing language proficiency. Cohen (1986) asserts that socially, it improves relations by increasing trust and friendliness. Group work teaches students skills for working in groups that can be transferred to many student classroom tasks. Group work is also a strategy for solving two common problems: keeping students engaged with their work, and managing students with a wide range of academic skills (Gagne & Briggs, 1979).

Although much has been argued in favor of pair and small-group work for students in the second-language classroom (Brumfit, 1984; Gaies, 1985; Kramsch, 1981; Long, Adams, McLean, & Castanos, 1976) the most common, widely-used pattern of instruction is large-group or whole-class teaching (Rivers, 1987). Many teachers, however, do not make active, regular use of a variety of grouping arrangements. As pointed out by Kramsch (1981),

Teachers are still reluctant to have students do in small groups what they feel they can do more conveniently, quickly, and accurately in a teacher-controlled, whole-class situation. They fear the potential for chaos and conflicts arising within groups, and in classrooms where students share a common native language, the schismatic us of the mother tongue (p. 24).

In sum, while the proponents of paired, small-group, and large-group second-language instruction are fairly well represented, neither the proponents nor the opponents of these instructional patterns have substantiated their positions with anything more than observations. This study, then, attempts to offer a systematic, descriptive investigation of group size and its relationship to the engaged learning activity of students in a given second-language classroom.

Organization of the Dissertation

This dissertation contains five chapters. Chapter One contains the introduction, and the statement and significance of the problem.

Chapter Two reviews research literature on group instruction, classroom time and second language (L2) acquisition.

Chapter Three describes the methods and procedures used in conducting the research as well as a description of the sample.

Chapter Four details the findings of the study and presents results of the data collection and statistical analyses.

Chapter Five summarizes the study and presents conclusions and recommendations based upon the findings.

A complete reference list and appendices follow Chapter Five.

Statement of the Problem

In this study, comparisons were made of the differences among three group sizes, pair, small group, and large group, for students' engagement in writing, speaking, listening, thinking, and reading French in a given second-language classroom. The following studies revealed that pair instruction fosters creativity and conversation, while small-group instruction is more conducive for tasks involving engagement activities.

Russo (1983) states that paired instruction elicits the greatest amount of creativity and diversity among students and conforms more perfectly to the use of conversation in the second-language classroom. Savignon (1983) reports that by its very nature working in pairs establishes an atmosphere that fosters communication. Also, this instructional pattern emphasizes the students' active role in language acquisition by placing the teacher in a less dominant role in the learning process (Krashen, 1982). Pairs are also widely used for free or structured conversation.

For more open-ended "skill getting" engagement activities, especially those calling for spontaneity and creativity, small groups work well (Omaggio, 1986). Skill getting activities are those activities aimed at teaching students how the target

language works (Rivers, 1987).

Of special importance among second-language researchers and practitioners is Krashen's (1982) model of language acquisition. In this model, acquisition is largely an individual event, occurring between the learner who is confronted with the language in a real-life setting and one or a few speakers of that language at a time. In the second-language classroom, learners are confronted with the target language in forms that have been structured for the students' understanding, and ability levels, presented in life-like settings. Generally, in the classroom, students, in various grouping configurations, are confronted by the language as it is presented to them by the expert speaker, the teacher. Thus, the teacher becomes a primary focus for organizing, structuring, and presenting the language in ways that can be comprehended by students.

Many second-language practitioners favor the large-group, whole-class technique even though researchers such as Omaggio (1986) and Chastain,(1980) support the role of pair and small-group instruction. Alatis (1980) points out that the large-group or whole-class setting prevents the teacher from hearing and correcting the response of every student and therefore does not allow for the best possible context for developing proficiency. Russo (1983) further states that teachers prefer large-group or

whole-class work because they feel that they have greater control over what transpires in the class and that it minimizes the amount of lesson planning that would ordinarily have to take place in order to accommodate pair and small-group instruction.

Another disadvantage of large groups is that student inhibition appears to increase with the size of the group (Boylan & Omaggio, 1980). Inhibitions, frustrations, and feelings of anxiety, however, can be minimized if a warm, supportive, nonjudgmental classroom climate is maintained. Students are then encouraged to become more engaged in classroom activities (Omaggio, 1986; Moskowitz, 1975).

The rapidly growing research literature on second language grouping frequently mentions group size in relation to specific engagement activities. Nevertheless, a definite relationship between group size and activity is difficult to discern. This study then, attempts to investigate whether or not a relationship exists guided by the following:

- In which of three group contexts, pair, small group, or large group, are students most often instructed in the L2 classroom?
- In which activity, writing, speaking, listening, thinking, or reading, are students most often engaged in the L2 classroom?
- In which of three group contexts, pair, small group, or large group, are students most often nonengaged in the L2 classroom?
- What is the relationship between group size and the engaged activity of students in the L2 classroom?

Significance of the Problem

Groups that are assembled for instruction in schools may be of various sizes. The group sizes that seem to be of particular importance for instructional design and this study are the two-person group or pair, the small group, and the large group (Gagné & Briggs, 1979). Further, second-language experts such as Nerenz and Knop (1982) conducted research that confirms the usefulness pairs as well as the small group in L2 classrooms.

The significance of this study centered around a classroom decision faced by many second-language practitioners: whether or not to group students for instruction. Three grouping contexts were examined in this study: pairs, small groups, and large groups. Also of primary concern to the study was engagement defined as writing, speaking, listening, thinking, and reading.

The size of the instructional group is an important determiner of the environment in which learning occurs. Some patterns of interaction among teachers and students are more readily attained with small groups, some with large (Stevick, 1982; Walberg, 1976). Communication between teacher and student flows in both directions during instruction in the pair group. When recitation is the adopted mode, with either the small or large group, mutual interaction occurs between the teacher and one student at a time,

while other students are the recipients of a teacher communication. In the lecture mode of instruction, used typically with a large group, the communication flow is from teacher to students (Gagne & Briggs, 1979; Walberg, 1976). Interactive recitation and discussion occur in a small group where there is interaction among students, as well as between the teacher and the students.

Many second-language practitioners see little instructional value in dividing their classes into groups, while others support the group approach and attempt to relate it to the teaching of various second-language skills (Chaudron, 1988). This study attempts to present information that may assist practitioners as they consider whether or not to utilize pair, small-group and large-group instruction for second-language students engaged in writing, speaking, listening, thinking, and reading in second languages.

Assumptions

An assumption of this study was that there would be a high frequency of opportunities for students to learn the target language in an instructional setting given the teacher's approach. It was also assumed that the number of engagement activities obtained from the described observations was representative of all the activities engaged in by students in the classroom setting across the school year.

Delimitations of the Study

Participants involved in this study were limited to fourth, fifth, and sixth grade students of a southwestern Virginia city school division. These students were exposed to the target language (French) by means of a Foreign Language in the Elementary School (FLES) Program required for all students and offered in a setting where the teacher's influence was dominant.

Another delimitation of the study was the decision to use only one teacher and her classes as a source of data. This allowed the researcher to do a more indepth investigation of the teacher and the classroom under observation and the purposes of the teacher. Thus, a more detailed description of students

engaged in writing, speaking, listening, thinking, and reading French while participating in the pair, small-group, and large-group contexts was possible.

Limitations of the Study

A limitation of the study was the physical presence of the researcher and the video equipment that could have inhibited the students and their freedom to interact with each other in a normal fashion. These occurrences were minimized since the researcher interacted with the students in this study for three years for the purpose of administering oral examinations in the target language, French. The researcher also visited the classroom where data collection was to take place on several occasions. During those visits, students saw and became somewhat accustomed to the video equipment that was used to record data for the study.

A final limitation of the study was that the amount of time during which the researcher could collect data was restricted. Even though students were scheduled to study the target language for 45 minutes each week, the researcher was limited to approximately 30 minutes of actual coding time.

II. REVIEW OF LITERATURE

The research related to the study comprises three areas: pair small-group, and large-group instruction; academic, engaged, and L2 classroom time; and L2 acquisition. The section on group instruction examines the nature of this type of instructional strategy and presents the points of view of several researchers for the use of pair, small-group, and large-group instruction. The section on academic, engaged, and L2 classroom time focuses on how practitioners appropriate time for instruction, and the section on acquisition looks at how students acquire language.

Pair, Small Group, and Large Group Instruction in the Second-Language Classroom

A great deal of instruction is carried out in classrooms for learners who are assembled in a group. When instruction is delivered or managed in this way, one must bear in mind that learning still occurs within individuals (Gagne & Briggs, 1979). The literature in this study on group instruction is divided into three sections: (a) pair instruction, (b) small-group instruction, and (c) large-group instruction. Based upon a large-scale study conducted by Nerenz and Knop (1982), group size parameters were set as follows: small group, three to eight participants in a classroom setting, and large group, nine or participants in a classroom setting.

Pair Group Instruction

Pair grouping appears to be an appropriate context for highly structured "skill-getting" activities. Two examples of such activities are: 1) writing a short paragraph using sentence clues provided by the teacher, or 2) completing a letter in the target language by choosing words that best fit the context of the letter (Savignon 1983; Bingham, 1976; Joiner, 1974).

It is the easiest kind of group to organize (Freed, 1975; Moskowitz, 1975); it maximizes student participation, and the pace of interaction is rapid (Omaggio, 1986; Sonnastine, 1976). Baker (1976), however, observes that these kinds of activities can be successfully conducted in groups as large as five if the appropriate materials are available.

The notion that learners of a second language should practice the language by conversing with each other in pairs is further confirmed by researchers (Chaudron, 1988; Omaggio, 1986; Savignon, 1983). Nott (1983) also cites several advantages of using pair work in the classroom from his research: pair work enables pupils to speak and listen to the second language in a less formal and intimidating context than the usual teacher-pupil exchange; (2) it demonstrates to the pupils that they can use the L2 for face-to-face communication; (3) each pupil speaks the L2 far more than in the usual teacher-centered situation; (4) each

pupil receives much-needed practice in initiating conversational exchanges and in asking questions; (5) pupils have the opportunity to cooperate with each other to improve their performance; and (6) unlike grammar sentences, drills, and audio-lingual responses, pair work encourages students to see language in a constructive, even creative, manner.

Like the pair, the small-group setting provides certain inherent advantages for second-language classroom learning. Since the small group is an extension of the pair, plans for its use in classroom are similar in nature.

Small-Group Instruction

Instructional groups of up to eight sometimes are a natural outgrowth of a larger group (Bloom, 1981). Gagne and Briggs (1979) contend, however, that more frequently, such groups may be formed by deliberate division of larger ones. In the elementary and middle grades, the teacher may find it desirable to form small groups from an entire class of students in order to instruct students who have progressed to approximately the same point in their learning of a particular subject (Good & Brophy, 1984). Aside from the formation of the small group in the classroom, Bloom (1981) asserts that there needs to be a specific reason or purpose for the existence of the group since

groups that are formed purposefully seem to perform their tasks more efficiently than groups without a purpose. Clark and Ramsey (1970) emphasize that:

The primary purpose of small-group instruction is to provide each individual a chance to relate his knowledge and skills to and with others in a meaningful way (p. 3).

This interaction among students in a small group is a decisive factor in both the quality and meaningfulness of student learning. Much practical learning involves a social transaction or interaction between people (Olmstead, 1974).

In this view, learning is the transactional or interactive process by which learners acquire knowledge and skills from someone such as a teacher who already possesses them. Small-group learning, however, can be regarded as a transaction between a learner and other learners, all of whom constitute a group. In this process, a great deal of learning how to use knowledge in a practical way occurs through interaction between learners. New information provided by the teacher is integrated with the learners' past experience and knowledge and reshaped into a workable system that can be applied on a practical basis. Thus, in small-group instruction, the principal interaction is within the learning group and learning results from the exchange that occurs within the group (Clark & Ramsey, 1970).

It would appear, then, that small-group instruction has several advantages for the second-language learner. Russo's (1983) research presented the following conclusions: (1) because only three to eight students form each group, every student has many more opportunities to use the target language; (2) the small group setting allows the teacher to conduct many activities that would consume too much time on a whole-class or large-group basis; (3) it provides a small-scale setting for drill exercises of various types, allowing every member to participate on a much more frequent basis; and (4) it provides a context wherein students can help each other to master the various communication skills. Although the merits of small-group work in second-language instruction are noteworthy, many practitioners are still reluctant to vary their teaching methods from the traditional large-group or whole-class approach. Some obvious concerns are (1) the teacher's inability to monitor what's going on except superficially; (2) the potential lack of guidance in each group; (3) varying agendas in each group; and (4) the domination of one or more students in a group.

Large-Group Instruction

In instructing large groups of students, the teacher uses methods that do not differ in function from those utilized in pair or small-group settings (Bloom, 1981). However, Gagne & Briggs (1979) state that the strategy of instruction in a large group could be a problem since teachers of large groups cannot always be sure that they have gained the attention of all students; they cannot always be certain that all students have recalled prerequisites, or that the learning startegies they suggest will work well with all students. Consequently, large-group instruction on the average cannot by itself be insured as effective for each individual learner as pair or small-group instruction (Good & Brophy, 1984; Bloom, 1981).

In general, second-language teachers seem to prefer the large-group setting for instruction in their classrooms. An alternative for those second-language practitioners who favor large-group, whole-class instruction and "fear" the use of pair and small-group methods was proposed by Freilich (1974) and Wells (1974). Freilich's "flexible classroom" whole-class instruction of basic skills is followed up with pair and small-group work with students. Wells (1974) also diversifies her approach to group

instruction. In her weekly schedule, three days are devoted to whole-class instruction; one day is reserved for small-group work, and one day is set aside for work in pairs. Both Freilich and Wells offer suggestions for a mix of small-group and whole-class activities, thereby allowing teachers who are reluctant to group for instruction an opportunity to diversify their grouping methods.

The Elementary Second-Language Classroom

Thus far, the literature reviewed has primarily focused on the secondary school L2 classroom. Since the data for this study were collected in an elementary school, the researcher examined literature that was pertinent to grouping in L2 elementary school classes. This body of research was helpful in delineating certain differences between group instruction in secondary and elementary L2 classrooms.

Traditionally, secondary L2 classes were characterized by a large-group, teacher-led structure (Curtain & Pesola, 1988). However, L2 classrooms in the elementary school that are focused on language proficiency are seriously hampered by such a configuration. The research of Omaggio (1986) and Krashen (1982) also informs practitioners that, based upon cognitive learning theory and L2 acquisition theory, learning on the part of children is facilitated when they are allowed to express themselves orally.

Expressing concepts, putting them in our own words, explaining and speculating about them aloud, making applications of concepts to new situations, and finding creative and personalized ways to remember new concepts or language materials all contribute to genuine, successful learning (Curtain & Pesola, 1988, p. 171).

Children who work in pairs and small groups seem to acquire language more easily and have greater opportunities to discover how to express concepts and make applications and become a part of a "genuine and successful" learning environment as explained by Curtain and Pesola. Given this knowledge, the instruction delivered by L2 elementary practitioners in their classrooms could be greatly enhanced and the goal of L2 proficiency could become a reality.

In sum, pair, small-group, and large-group or whole-class instruction play an essential role in the learning process for second-language students, however, each mode of instruction must be carefully planned by the teacher so as to maximize learning opportunities and engagement activities for students whether they are studying at the elementary level or the secondary level.

Academic, Engaged, and Second-Language Classroom Time

The notion of time is prominent in contemporary studies of teaching and learning. Even so, pupil engaged time in classrooms does not account for all aspects of school learning because of the obvious omission of learning that takes place outside of the classroom, as well as the technical difficulty of ascertaining pupil engagement (Thomas, 1974). It still appears reasonable to claim as Harris and Yinger (1976) do, that "time is a useful, measurable, and sensible proxy variable for student learning" (p. 8). The literature in this section focuses on the following aspects of time: (a) academic learning time, (b) engaged classroom time, and (c) second-language classroom time.

Academic Learning Time

Virtually all major movements in education have identifiable sources. With respect to what may be called the "time movement," the source quite clearly is John B. Carroll, and more specifically, his paper "A Model of School Learning" (1963). In that paper, Carroll suggested a direct relationship between time

and learning. This relationship is represented by the following formula:

$$\text{learning} = f \frac{\text{time spent}}{\text{time needed}}$$

Further examination of this relationship indicates that there are two ways in which learning can be maximized. One of these ways is to increase the time spent learning, and the second way is to minimize the time needed to learn.

In conjunction with the time needed to learn part of his work, Carroll proposed the concept of the learning task. He defined the learning task as "going from ignorance of some specified fact or concept of knowledge or understanding of it, or of progressing from incapability of performing some specified act to capability of performing it" (p. 723). Doyle and Good (1979) elaborated on Carroll's definition and defined a learning task as " (a) a goal, and (b) a set of operations designed to achieve a goal" (p. 45). Thus, from Carroll's perspective, the focus is the time needed to accomplish a specific task.

According to Carroll, there are three determinants of the amount of time learners need to accomplish a given task. These determinants are: (1) the learner's aptitude for the learning task, (2) the quality of the instruction provided to the learner in an attempt to facilitate the accomplishment of the task, and

Although Carroll suggests that "the amount of time actually needed by a person to learn a given task satisfactorily is a function not only of aptitude ... but also of quality of instruction in so far as it is less optimal" (p. 727), the relationship among the three determinants to learning is unclear.

In the years that followed the publication of Carroll's work, a vast number of research studies have been introduced that have examined the utility and limits of the time concept in schooling. An increasing number of reviews have attempted to integrate the knowledge in this area (Anderson, 1984; Denham & Liberman, 1980; Frederick & Walberg, 1979; Lomax & Cooley, 1979, Rosenshine, 1979).

An examination of these reviews shows that the bulk of the research has focused on engaged time (Berliner, 1979). The two major time variables included in these studies, academically engaged time or time on task, and allocated time are variables hypothesized by Carroll to influence the amount of time learners spend learning (Fisher & Berliner, 1985).

The emphasis on time spent is also illustrated by the nature of the conclusions and recommendations that follow from the time studies. Two of the most frequently cited conclusions from the

Beginning Teacher Evaluation Study are that:

1. The amount of time that teachers allocate to instruction in a particular curriculum content area is positively associated with student learning in that area, and
2. The proportion of time that students are engaged is positively associated with learning (Fisher, Filby, Marliave, Cahen, Dishaw, Moore, & Berliner, 1978, pp. 15 and 16).

Similarly, ideas such as the following appear in the sections of a large number of time-based studies. Berliner (1979) suggests that:

Many teachers can improve their classrooms by... reorganizing classroom practices to maximize teaching time and learning time (p. 134).

Borg (1980) supports Berliner's points by and emphasizes that effective programs must be developed to give teachers both preservice and inservice training in skills and strategies that will increase the time students devote to relevant academic learning. Both conclusions and recommendations suggest that learning will be maximized to the extent that the time spent in learning is maximized.

Engaged Classroom Time

Research on "pupil attention," "pupil time-on-task," or "pupil engagement" has an extensive history that reflects a continuing concern with the phenomenon by both researchers and classroom practitioners (Fisher & Berliner, 1985). Jackson (1968) summarized the pragmatic view of many teachers when he said of the importance of the topic:

From a logical point of view few topics would seem to have greater relevance for the teacher's work. Certainly, no educational goals are more immediate than those that concern the establishment and maintenance of the student's absorption in the task at hand. Almost all other objectives are dependent for their accomplishment upon the attainment of this basic condition. (p. 85).

Experiences and activities of students play a central role in learning. The key idea that forms the core of this perspective is the commonplace and obvious notion that if pupils do not participate in the activities intended to educate them, they

cannot learn:

All influences on pupil achievement must be mediated through a pupil's pursuits. No one can gain knowledge or take up new ways of thinking, believing, acting, or feeling except through seeing, looking, watching, hearing, and listening, feeling and touching. These control how and what one learns. Less proximal influences, whether as general as the district curriculum and policy and the school organization or as idiosyncratic as given teacher's education, personality, planning, and activities, directly control and condition these pursuits and not the student's ultimate achievement. The focus on this particular causal linkage is the central uniqueness of the model; most earlier studies, by contrast, have regarded teacher behaviors as directly, if mysteriously, influencing achievement (Harnischfeger & Wiley, 1978).

The centrality of the pupil's participation in the learning process does not imply that it is sufficient to restrict one's attention to that participation only. All activities of educators, whether they be administrators, teachers, or supporting staff, should be focused on pupil participation in learning. (Bloom, 1981). Thus, those activities must be scrutinized in terms of their relationship to pupil participation and achievement. It is the character of this relationship that constitutes the view of the work of Carroll, Bloom, Harnischfeger and Wiley:

The consensus of the three models is simply stated: Pupils' experiences, adequately plumbed by the amount of time spent actively learning, and pupils' characteristics, including their cognitive capabilities, are the sole proximal and distinctive determinants of achievement (Harnischfeger & Wiley, 1978).

This consensus, which now forms the conceptual base for much practice-relevant research on active learning has several distinct components:

- Pupils' participation and pupils' prior characteristics are the sole causes for achievement.
- Experience or participation is adequately summarized by a pupil's active learning (engagement) times.
- Opportunity to learn and motivation are the major determinants of participation.
- Opportunity is controlled by the allocation and use of available instructional time.
- Motivation and other factors that transform opportunity to active learning are strongly influenced by instruction (Fisher & Berliner, 1985, p. 135).

The formalized notion that active learning time is solely responsible for learning and that the amount of it needed to accomplish this learning is dependent upon an individual's cognitive abilities is due to the work of Carroll (1963). Decisions and actions that enhance pupil participation by augmenting active learning time and that devote that time to specific achievement goals and objectives are the central factors for increasing achievement and apportioning it across subject areas. Thus, the key concept is active learning (engagement) time.

Second-Language Classroom Time

Competence in a L2 is not often easily achieved. Indeed, language acquisition is a lengthy process, and for many students fluency is never actually attained (Rivers, 1987). Several explanations for this phenomenon come to mind: the relative difficulty of exposing students to the language in the quantities, quality and settings found in the target culture; the limited time periods devoted in school to the subject matter; and the small amount of actual skill development in the target language during those class hours. For second-language practitioners at any stage in their professional development, time is a precious commodity. It is something that teachers never seem to have enough of, something that never seems to stretch far enough so that everything can be taught in a comprehensive manner (Nerenz & Knop (1982). The second-language teacher has very little power over the limitations imposed by the school. However, with regard to the appropriate use of available class time, teachers do have considerable control (Nerenz, 1979).

In a study of 20 Wisconsin middle and high school second-language classes, Nerenz (1979) conducted an investigation to determine how teachers utilized classroom time and to identify the curricular areas in which students were engaged. During a

sixteen-week period, observational data were collected during 864 class sessions in middle and high school French, German, and Spanish. The frequency of teacher and student utterances was tallied for each language during each part of every lesson, and the type and duration of activity were also recorded.

Of the findings that are most relevant to this study, Nerenz found the greatest amount of time was devoted to the teaching of grammar. The second greatest amount of time was spent on classroom organizational activities. Speaking received the third largest portion of classroom time.

Wait-time in the Second-Language Classroom

Literature on wait-time was examined by the researcher because the definition for wait-time, the pause or interval between speakers most nearly approximated the definition for thinking, pondering the response to a question or problem posed by the teacher. Wait-time then, was relevant to this study because it enabled the researcher to code "thinking" in terms of the five-second interval that was established for the activity variables, writing, speaking, listening, and reading.

In sum, research on wait-time by researchers such as Coffman (1987), Shrum (1985a, 1985b), and Meredith (1978) was helpful in relating the thinking activity to a pause or an

interval and thereby making the definition for thinking more concrete. It was difficult for this researcher to delineate thinking from some of the other classroom activities thus, the notion of wait-time provided a means whereby the definition for thinking could be operationalized and at the same time more clearly observed in the classroom under investigation in this study.

Related Literature: Language Acquisition

Research on language acquisition is presented here since it provides a schema for the way in which language is acquired. Krashen's (1982) model of language acquisition offered significant viewpoints for the researcher since it is the most widely used theoretical model to be developed recently. The following hypotheses are relevant to this study since they focus on the way in which learners acquire languages in a classroom setting.

The first hypothesis, the Acquisition/Learning hypothesis states that competence in a L2 may be developed in two ways: acquisition, a subconscious process in which the user is unaware that the language is being acquired, only that the language is being used as a means of communication; and learning, a more conscious knowledge of grammatical structures and their application to the language being learned.

A second hypothesis, the Monitor hypothesis hinges upon the notion that acquisition is the only reason for all L2 utterances and thus leads to L2 fluency. Learning, or using formal rules, acts as a "monitor" for output and functions only when the user: 1) has enough time to think, 2) can focus on format, and 3) is able to apply rules.

The Input hypothesis relates to the user's acquisition of language and states that: 1) language is acquired rather than learned; 2) acquisition is made possible for the user by presenting language structures that are somewhat beyond the immediate level of competence ($i + 1$); 3) the ($i + 1$) structure is provided automatically if communication in the language is successful and there is a sufficient amount of it; and 4) the ability to converse fluently in the language cannot be taught directly rather, it emerges naturally over time (Omaggio, 1986, pp. 29, 30).

The last hypothesis, the Affective Filter hypothesis states that comprehensible input for the language user can effect acquisition under certain affective conditions: 1) the user is motivated; 2) the user is self-confident, and 3) the user's level of anxiety is low.

In sum, Krashen's (1982) language acquisition model has several implications for classroom practice: 1) the L2

classroom can provide comprehensible input if it fosters high motivation and low anxiety; 2) the L2 classroom can be a place where the beginning language user cannot easily utilize the informal environment for input; 3) the characteristics of optimal input in the L2 classroom are: a) comprehensible b) interesting and relevant, c) not necessarily grammatically sequenced, d) provide sufficient input for the ($i + 1$) structure, and e) provided in an environment where the user's affective affective filter is low; 4) the correction of errors in the L2 classroom is minimal when the goal is acquisition; and 5) language fluency emerges naturally and the user is never forced to produce the language (Omaggio, 1986, pp. 30, 31).

SUMMARY OF REVIEW OF LITERATURE

The literature reviewed for this chapter focused on pair, small-group, and large-group instruction; academic learning time, engaged classroom time, second-language classroom time, wait-time, and second-language acquisition.

The literature on pair, small-group, and large-group instruction revealed that the characteristics of instruction applicable to these three group sizes can be understood in terms of how well instructional events can be managed by the teacher. In general, it may be concluded that as group size increases, the pace of student-to-student interaction decreases, and group productivity in terms of the amount of curricular material that can be covered is significantly reduced (Gagne & Briggs, 1979).

The section on academic learning time and engaged classroom time was examined in light of John B. Carroll's (1963) work "A Model of School Learning." Carroll described a model of school learning in which time played a crucial role. In the model, the degree of school learning was a function of the time spent on academic learning divided by the amount of time needed to learn the material. In this equation, the amount that students learn is dependent on both how much time is needed and how much time is

actually spent learning.

The second-language classroom time research that was examined focused on the notion that students should have opportunities to have active and engaged contact with writing, speaking, listening, and reading the target language during the class period (Omaggio, 1986). Also, wait-time research further emphasized the importance of the use of time in the L2 classroom and how that time may effect students and their responses to the teacher.

Finally, research on L2 acquisition as theorized in Krashen's (1982) model was examined in an attempt to discover how students learn and acquire language in a classroom setting. This body of research emphasized that the main function of the classroom may be to provide comprehensible input in an environment conducive to a low affective filter (Omaggio, 1986).

III. PROCEDURE

Population

The population for the study consisted of the total events that occurred in 15 classroom sessions in a southwest Virginia elementary school. Student participants were selected fourth, fifth, and sixth graders who were enrolled in the school's Foreign Language in the Elementary School (FLES) Program. They attended class three times per week. Each class session lasted for 45 minutes.

Sample Selection

The sample consisted of those engagement and nonengagement events that occurred in the 15 observed sessions in an elementary second-language classroom where students studied French. The researcher recorded all occurrences by means of videotape. Subsequently, the data were coded for analysis using the the Foreign Language Observational System (FLOS) developed by Nerenz and Knop (1982).

Research Design

In this study, three elementary school French classes were observed and videotaped on five occasions each for a total of 15 observations. The data was coded for analysis using the Foreign Language Observational System (FLOS). This system was selected because it offered a method of coding certain classroom occurrences with accuracy and flexibility that permitted a complete and concise description of the variables chosen for this study.

The FLOS is comprised of six categories and 43 possible classroom occurrences. This system allowed the researcher to code an occurrence every five seconds for each of six target students. Consequently, during a 45 minute class period, it was possible to code as many as 540 occurrences. In this study, however, only those events that occurred from the time the teacher began instructional proceedings until the end of class were coded. For the 15 observations, this averaged out to be about 30 minutes.

Each target student was observed in five-second intervals called "snapshots." At the beginning of the lesson, the first snapshot for target student number one was recorded on the FLOS coding form. Subsequently, the activity of each succeeding target student was recorded. At certain points when data was being collected from the videotape, a target student was not on camera during that particular interval. This was due to the

systematic movement of the camera so designed as to routinely capture the activity of the student every five seconds. This coding cycle was continued until the end of the class period. During this study, the researcher tabulated 6,800 occurrences for statistical analysis.

The researcher focused on two main categories for this study: 1) group, the size of the group in which the student was a participant, and 2) activity, the type of engaged or nonengaged classroom behavior exhibited by the student at the time of observation.

Variables

The variables that were studied were group size and student activity in the three elementary school French classes under investigation. These variables were described by two of the categories of the FLOS.

The group size variable referred to one of three grouping contexts: pair, two students working together; small group, three to eight students working together, and large group, nine nine or more students working together.

The activity variable was comprised of two main categories: engagement and nonengagement. In this study, engagement was defined as student involvement in writing, speaking,

listening, thinking, reading, and learning the curricular content under consideration (Nerenz & Knop, 1982; Rosenshine, 1979). Nonengagement referred to noninvolved activity when it is assumed that students are not actively involved with learning the curricular content under consideration (Nerenz and Knop, 1982). Engaged behavior included: writing, speaking, listening, thinking, and reading. Nonengaged behavior included: waiting, interim, and offtask. All variables and their codes are summarized in Tables 1 and 2 and further explained in Appendix D.

Instrumentation

The Foreign Language Observational System was used to code group size and student activity occurrences as they took place in the classroom setting. This use of FLOS was supported by a large-scale observational study conducted by Nerenz and Knop in 1982. The researcher chose this system because it offered a systematic way to code occurrences with accuracy and it presented 43 possible descriptors for coding student classroom behavior. The categories and codes for FLOS (Nerenz & Knop, 1982, pp. 248-250) that were used in this study are defined below.

Categories of FLOS

<u>Category</u>	<u>Code</u>	<u>Definition</u>
Individual	1	One student working alone.
Pair	2	Two students working alone.
Small Group	3	Three to eight students working together.
Large Group	4	Nine or more students working together.
Eng-writing	5	Engaged time that involves writing.
Eng-oral	6	Engaged time that involves speaking.
Eng-listening	7	Engaged time that involves listening.
Eng-covert	8	Engaged time that involves thinking.
Eng-reading	9	Engaged time that involves reading.
Noneng-waiting	10	Nonengaged time that involves waiting for directions or materials while the teacher works with another student.
Noneng-interim	11	Nonengaged time that involves doing something necessary to the task, getting out books, finding the page, sharpening a pencil, but not the task itself.
Noneng-offtask	12	Not actively involved with the learning task under consideration.
Target Language	13	The language being learned by students that is different from that normally spoken in their living environment; also referred to as second language.
Native Language	14	The language first learned and in the case of this study, English.

Table 1
List of Coded Variables

Variables	FLOS Codes
Group Size	
Pair	GS-P
Small Group	GS-SG
Large Group	GS-LG
Student Activity	
Students	
Target Student	TS
Other Students	OS
Engagement	
Writing	ENG-W
Speaking	ENG-S
Listening	ENG-L
Thinking	ENG-T
Reading	ENG-R
Nonengagement	
Waiting	NONENG-W
Interim	NONENG-I
Offtask	NONENG-O
Language	
Target Language (French)	TL
Native Language	NL

Table 2
Foreign Language Observational System
Explanation of Codes

Code	Category
Grouping Codes	
2	Pair
3	Small Group (3 to 8 students)
4	Large Group (9 or more students)
Student Activity Codes	
5	Writing
6	Speaking
7	Listening
8	Thinking
9	Reading
10	Waiting
11	Interim
12	Offtask
Other Codes	
13	Target Language
14	Native Language
TS	Target Student
OS	Other Student

The researcher used the Human Subjects Exemption Request (Appendix A) and the Statement of Informed Consent (Appendix B) to secure permission to collect data.

Data Collection

Fifteen classroom observations of fourth, fifth, and sixth grade French students who attend an elementary school in southwest Virginia were videotaped. Six target students were selected from each grade level being observed based upon the instructional level of French for students at that grade level, the interest shown by the students in the target language, the willingness of the students to participate in the study, and the recommendation of the teacher.

Videotaped recordings were made of fifteen 30-minute class sessions during the five-week observational period of the study. Transcripts were made of each tape to provide written records of each classroom setting observed. The instrument used for coding was FLOS (Appendix C).

Descriptive Procedures

The design of a study and the selection of an appropriate instrument used for data analysis must be concerned with validity and reliability to ensure that the instrument is measuring what it is intended to measure and to establish that the same analysis can be conducted by other trained users with consistent results. Face validity and construct validity had an impact on the study and therefore needed to be dealt with by the researcher. The issue of reliability focused on interrater reliability and observer drift.

Face validity and its relationship to the Foreign Language Observational System was established in a previous description earlier in this chapter. Also, a large-scale study designed and carried out by Nerenz and Knop in 1982 laid the foundation for the face validity and the construct validity of this instrument.

To further validate the instrument with the events being measured in this study, the researcher identified 100 unambiguous events (Appendix D) from the data that were clearly representative of the constructs inherent in the instrument. Further, these events were representative of the group size and engaged activity

variables in the study. The researcher and the criterion observer, Dr. Judith L. Shrum, independently coded the same typescript of the 100 unambiguous events and reached a 98% agreement coefficient (Scott, 1955) verifying that the constructs inherent in the FLOS instrument are valid for the measurement of the events under consideration in this study. Appendix E shows the computation of this agreement coefficient.

Following data collection, the researcher and the criterion observer, established interrater or criterion-related reliability. The researcher and the criterion observer independently coded occurrences of classroom activity from a 10-minute segment of a video-recorded classroom observation using a FLOS instrument. Using Scott's (1955) coefficient, the interobserver reliability was established at 87%. The computation for this coefficient appears in Appendix E.

During the process of coding a large number of occurrences for data analysis, a researcher is likely to shift occurrences or events from one code to another. In an effort to prevent this shifting, called observer drift, the researcher coded five-minute segments from the videotaped data at three intervals in the

data-coding process: once at the beginning, once in the middle, and once at the end. Using Scott's Coefficient, intraobserver reliability coefficients were calculated over the first and second codings, the second and third codings, and the first and third codings. For the FLOS categories used in this study, agreements of 98% were found between the first and second codings, 97% between the second and third codings, and 93% between the and 93% between the first and third codings. The computation for these percentages of agreement are in Appendix E.

Data Analysis

The researcher was interested in the size of the group in which students participated and the relationship between group size and the engaged and nonengaged activities of students in the second-language classroom. Frequency counts, percentages, and means were calculated to ascertain how much time students spent in the pair, small-group, and large-group contexts and the type of activity, writing, speaking, listening, thinking, or reading in which students were involved. Analyses of variance

were performed on the collected data to determine whether or not a relationship existed between group size and the engaged activity of students in the second-language classroom under investigation in this study.

Summary

In this study, the researcher collected occurrences of the variables group size and engaged activity on videotape in an elementary school in southwest Virginia. The Foreign Language Observational System (FLOS) developed by Nerenz and Knop (1982) was used to code the data. Observational "snapshots" were taken of six target students every five seconds for 30 minutes.

The collected data was analyzed in order to obtain frequency counts, percentages, and means. Further analyses were performed to discern whether or not a relationship existed between the group and activity variables under investigation in this study.

IV. RESULTS

Introduction

In this study, three elementary second-language classes in a southwest Virginia school division were observed on 15 occasions for 30 minutes each. From these classes, 18 target students were selected and observed over a five-week period.

Video-recorded observations were made of classroom groups (pairs, small groups, or large groups), and the engaged activity (writing, speaking, listening, thinking, or reading) of students who participate in the school's Foreign Language in the Elementary School (FLES) Program.

The first section of the chapter presents an overview of the findings for the percentages of group size and engaged and nonengaged activity occurrences. The next section reports the means of group and activity occurrences as they were observed in the recorded sessions of the second-language classroom being investigated in this study. The third section compares and describes group and student engaged activity as they occurred in the 15 video-recorded classroom sessions. The last section of this chapter summarizes the findings of this study.

Overview of Findings

The video-recorded observations contained a total of 6,800 codes using the Foreign Language Observational System. The coded classroom group (pair, small and large) and activity (writing, speaking, listening, thinking, and reading) represented 98% ($n = 6,674$) of the coded occurrences in this study (see Table 3). The remaining 2% ($n = 126$) of the occurrences were nonengagement categories (waiting, interim, and offtask; see Table 4). Since the nonengagement categories represented such a small percentage of the coded occurrences, they were not included in the overall data analysis process. Students in this study were more engaged than nonengaged. Observational videotape and field note data support the conclusion that the teacher in this study was skilled at keeping students engaged with the curricular content in this classroom, thus making nonengagement minimal.

Of the five classroom events that were included in the data set analysis, writing was the most frequently observed activity (41%, $n = 2,705$). An example of a writing activity taken from the data is:

TS:M(1,1): Records answers to the assigned exercises
in the cahier (notebook).
Code: TS:M(1,1): 5,4,13

This code represents a target student (TS) who was a male (M),

Table 3

**Group/Activity Observed Engagement* Occurrences
and Percentages of Engagement**

GROUP				
	Pair	Small Group	Large Group	Total
ACTIVITY				
Writing	212 3%	377 6%	2,116 32%	2,705 41%
Speaking	240 4%	300 4%	541 8%	1,081 16%
Listening	170 3%	210 3%	346 5%	726 11%
Thinking	229 3%	203 3%	653 10%	1,085 16%
Reading	216 3%	466 7%	395 6%	1,077 16%
Total	1,067 16%	1,556 23%	4,051 61%	6,674 100%

* Represents 98% of the total number of coded occurrences.

Table 4

**Group/Activity Observed Nonengagement* Occurrences
and Percentages of Nonengagement**

ACTIVITY	GROUP			Total
	Pair	Small Group	Large Group	
Waiting	0	0	40 32%	40 32%
Interim	15 12%	5 4%	25 20%	45 36%
Offtask	6 5%	5 4%	30 23%	41 32%
Total	21 17%	10 8%	95 75%	126 100%

* Represents 2% of the total number of coded occurrences.

who sat in the first row (1), in the first seat (1) in the classroom. The information on the physical location of the student was critical so that the researcher could easily identify the student on tape and accurately code the behavior being exhibited. The second part of the code indicates that the student was engaged in writing (5), was working in the large group (4), and was utilizing the target language, French (13).

Other examples from the data set for each engaged activity category follow:

TS:F(4,1): Ponders the teacher's question "Où est votre soeur?" (Where is your sister?)
Code: TS:F(4,1): 8,4,13

This example focused on a target student (TS) who is a female (F) and sits in the fourth row (4) and the first (1) seat in the row. This student was engaged in the thinking activity (8) in the large-group context (4) using the target language.

The following is an example of the speaking activity:

TS:M(3,5): Responds to the question "C'est quand ton anniversaire?" (When is your birthday?) by saying "Mon anniversaire est le cinq avril." (My birthday is the fifth of April.)
Code: TS:M(3,5): 6,4,13

after they had thought about an appropriate response. A typical speaking activity is one in which the teacher first grouped students in pairs and gave each a set of five questions. Each student was to ask his or her partner to respond orally to the questions given.

TS:M(3,5): Responds to the question "C'est quand ton anniversaire? (When is your birthday?) by saying "Mon anniversaire est le cinq avril. (My birthday is the fifth of April.)

Code: TS:M(3,5): 6,2,13

The following examples involved the listening (Code 7) and the reading (Code 9) activities.

TS:F(2,6): Uses the cassette to learn the days of the week in French.

Code: TS:F(2,6): 7,4,13

TS:M(3,3): Reads a paragraph silently for the response to the teacher's request "Nommez les jours de la semaine." (Name the days of the week).

Code: TS:F(2,6): 9,4,13

All data were coded for analysis from the videotaped sessions of the classes being observed for this study. An explanation of all codes used can be found in Tables 1 and 2.

Activity Occurrences by Group in the Second-Language Classroom

The time students were engaged in one of five activities was considered the dependent variable in the study while the group size in which the student was a participant was considered the independent variable. Four research questions guided the study. The first research question was:

In which of three group contexts, pair, small group, or large group, are students instructed most often in the second-language classroom?

An analysis of the data showed that 61% of the time ($n = 4,051$) students are instructed in a large-group context, 23% of the time ($n = 1,556$) in a small-group context, and 16% of the time ($n = 1,067$) in pairs. In this study, then, large-group instruction was the dominant instructional mode. Further, transcriptions of field notes and data from videotapes revealed that students were instructed in writing, speaking, listening, and thinking while they were participants in a large-group setting. Data from field notes recorded by the researcher showed that students were attentive and responded more to the teacher's questions while they worked in the large group. They also remained on task for a longer period of time than when they were observed in the pair or the small-group setting.

The next two research questions formulated by the researcher dealt with engagement and nonengagement respectively:

In which activity, writing, speaking, listening, thinking, or reading are students most often engaged in the second-language classroom?

The analyzed data set illustrated that students in this study were most often engaged in the writing activity (41%, n = 2,705).

Other engaged activity occurrences in descending order are thinking (16%, n = 1,085), speaking (16%, n = 1,081), reading (16%, n = 1,077) and listening (11%, n = 726).

Figure 1 is a graphic representation of these findings and shows that students in the study were most engaged in writing and least engaged in listening. They were almost equally engaged in thinking, speaking, and reading.

Writing in this study received more instructional emphasis than the other activities that were under investigation. Field notes and a discussion with the teacher in this study indicated that writing was one of the school division's main foci. Furthermore, the instructional materials selected for use with students were highly orientated towards and focused on the development of writing skills.

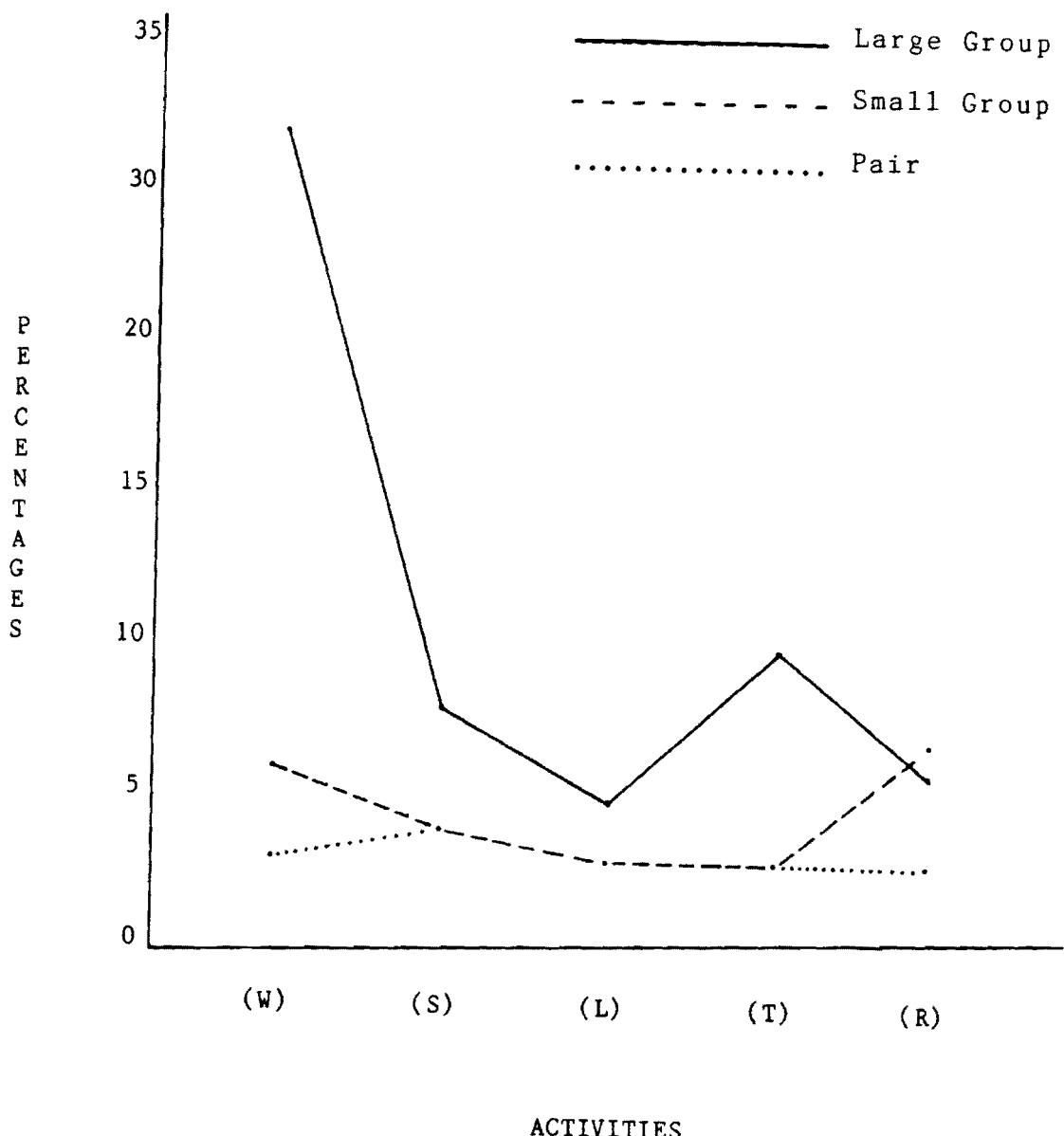


Figure 1: Graph of the percentages of student engaged activity occurrences in the pair, small-group, and large-group contexts.

Activities: (W)riting
 (S)peaking
 (L)istening
 (T)hinking
 (R)eading

The next research question focused on nonengagement:

In which of three group contexts, pair, small group, or large group are students most often nonengaged in the second-language classroom?

The total number of nonengagement occurrences observed was 126 representing two percent of the total number of occurrences in this study. The students were most often nonengaged in the large-group context (75%, n = 95). Nonengagement for the pair and small-group contexts was 17% (n = 21), and 8% (n = 10) respectively. The three nonengagement categories identified for investigation in this study yielded the following results: interim (36%, n = 45), offtask (32%, n = 41), and waiting (32%, n = 40). Table 4 reports these data.

The final research question was:

What is the relationship between group size and the engaged activity of students in the second-language classroom?

To determine whether time engaged in each of five activities varied within the three group sizes, one-way analyses of variance (ANOVA) were performed. The results of these ANOVAs are presented in Tables 5 and 6 respectively. The findings demonstrated that statistically significant ($p < .01$) differences exist within the

small [$F(4,68) = 5.53$] and large [$F(4,68) = 13.26$] groups among the activities under investigation: writing, speaking, listening, thinking, and reading. No differences were found within the pair group among the five activities being investigated in this study ($F = 0.84$). Further data analysis indicated statistically significant ($p < .01$) differences among the groups on time spent writing [$F(2,34) = 22.90$], speaking [$F(2,34) = 5.59$], thinking [$F(2,34) = 10.88$], and reading [$F(2,34) = 9.58$]. No differences were found between the groups for the listening activity ($F = 0.96$).

Table 5

**Engaged Activity Classroom Occurrence
Means and F-Ratios for Three Classroom Group Sizes**

ACTIVITY							
	W	S	L	T	R	F-Ratio	DF
GROUP SIZE							
Pair	11.72	12.72	11.05	12.00	11.77	0.84	4,68
Small Group	20.94	16.66	11.66	11.27	25.88	5.53*	4,68
Large Group	117.55	31.66	17.61	36.27	21.94	13.26*	4,68

* p < .01

ACTIVITIES: (W)riting
(S)peaking
(L)istening
(T)hinking
(R)eading

Table 6

**Group Size Classroom Occurrence
Means and F-Ratios for Five Engaged Activities**

GROUP SIZE					
ACTIVITY	P	SG	LG	F-Ratio	DF
Writing	11.72	20.94	117.55	22.90*	2,34
Speaking	12.72	16.66	31.66	5.59*	2,34
Listening	11.05	11.66	17.61	0.96	2,34
Thinking	12.00	11.27	36.27	10.88*	2,34
Reading	11.77	25.88	21.94	9.58*	2,34

* p < .01

GROUPS: (P) Pair
 (SG) Small Group
 (LG) Large Group

Duncan Post Hoc Tests were used to determine where there were significant differences between the means for each main effect. These results are presented in Tables 7 and 8 respectively. In the pair group, the Duncan Test showed no significant differences among the mean number of engaged activity occurrences. In the small group, the test showed that significant differences existed in favor of reading over the activities speaking, listening, and thinking. Significant differences, in favor of writing, were also found to exist between writing and thinking. No significant differences were shown among other activities in the small group. In the large group, the Duncan Test showed that writing was the dominant activity. That is, there were significant differences between the mean number of writing occurrences and the mean number of occurrences of thinking, speaking, listening, and reading. No significant differences existed among the mean number of occurrences of thinking, speaking, listening, and reading.

Further examination of the Duncan Test results showed that significant differences, in favor of the large group, in the mean number of occurrences for the writing activity existed between the large group and the small group and the large group and the pair. No significant differences were indicated between the small group and the pair. For the speaking activity, significant differences

Table 7

Results of the Duncan Post Hoc Comparison Tests
for Group Size and Activity

Duncan Grouping	*	a Mean	b S.D.	c N	Activity
Group Size: Pair					
A		13.33	4.78	240	Speaking
A		12.72	5.49	229	Thinking
A		12.00	4.92	216	Reading
A		11.77	3.85	212	Writing
A		9.44	2.33	170	Listening
Group Size: Small					
B	A	25.88	4.03	466	Reading
B	A	20.94	3.08	377	Writing
B	C	16.66	4.37	300	Speaking
B	C	11.66	3.44	210	Listening
C		11.27	4.34	203	Thinking
Group Size: Large					
A		117.55	25.31	2,116	Writing
B		36.27	6.18	653	Thinking
B		30.05	6.91	541	Speaking
B		21.94	5.35	395	Reading
B		19.22	4.45	346	Listening

* Means with the same letter are not significantly different.

a Mean number of occurrences.

b Standard deviation of occurrences.

c Number of occurrences.

Table 8

**Results of the Duncan Post Hoc Comparison Tests
for Activity and Group Size**

Duncan Grouping	*	a Mean	b S.D.	c N	Group Size
Activity: Writing					
A	117.55	25.31	2,116		Large
B	20.94	3.08	377		Small
B	11.77	3.85	212		Pair
Activity: Speaking					
A	30.05	6.91	541		Large
B	16.66	4.37	377		Small
B	13.33	4.78	240		Pair
Activity: Listening					
A	19.22	4.45	346		Large
A	11.66	3.44	240		Small
A	9.44	2.33	170		Pair

* Means with the same letter are not significantly different.

a Mean number of occurrences.

b Standard deviation of occurrences.

c Number of occurrences.

Table 8 (continued)

**Results of the Duncan Post Hoc Comparison Tests
for Activity and Group Size**

Duncan Grouping	*	a Mean	b S.D.	c N	Group Size
Activity: Thinking					
A		36.27	6.18	653	Large
B		12.72	5.49	229	Pair
B		11.27	4.43	203	Small
Activity: Reading					
A		25.88	4.03	466	Small
A		21.94	5.35	395	Large
B		12.00	4.92	216	Pair

* Means with the same letter are not significantly different.

a Mean number of occurrences.

b Standard deviation of occurrences.

c Number of occurrences.

For the speaking activity, significant differences, in favor of the large group, in the mean number of occurrences also existed between the large group and the small and the large group and the pair with no significant differences indicated between the small group and the pair. No significant differences existed in the mean number of occurrences for the listening activity among the the large group, the small group, and the pair. The mean number of occurrences for the thinking activity were significantly different, in favor of the large group, between the large group and the pair and the large group and the small group. No significant differences existed between the pair and the small group. For the reading activity, significant differences existed in the mean number of occurrences between the small group and the pair and the large group and the pair. The differences were in favor of the large group and small group sizes. No significant differences were indicated between the small group and the large group.

V. DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Included in this chapter is a brief review of the following: statement of purpose and the problem, summary of the procedures of the study, and a summary of the findings, conclusions, and recommendations.

There has been considerable discussion by second-language researchers as to the role of pair, small-group and large-group instruction in the classroom (Chaudron, 1988). Nerenz and Knop (1982) state that advocates of group instruction have suggested that a restructuring of teacher-student relationships is essential to maximizing practice time, increasing student's attention or involvement, and reducing tension or inhibitions. In contrast, Disick (1972) states that small-group activities are unproductive and much of what is accomplished could be achieved in the large-group or whole-class setting.

Neither the advocates nor the opponents of small-group instruction have had any real success in convincing many practitioners of the merits of utilizing pair, and small-group instruction in the classroom (Baker, 1976). In fact, even with an increased interest in the use of small-group work, actual analyses have not progressed beyond either a summary of the pros

and cons or a list of possible activities to be conducted with students in various group contexts.

Statement of the Problem

This study was conducted to examine the use of three grouping strategies and their relationship to the engaged learning activity of students a second-language classroom. Understanding how to utilize grouping and its potential effect upon the engagement activities of students may enable second-language educators to help students become more involved in classroom learning activities.

Procedure

The data source for this study consisted of three elementary second-language classes that were video-recorded on five occasions each for a total of 15 observations. Eighteen elementary students who studied French in the school's Foreign Language in the Elementary School (FLES) Program participated in this study.

The Foreign Language Observational System (FLOS) developed by Nerenz and Knop (1982) was used to code the data for analysis. The data were subsequently analyzed using the Crosstabs and the One-way Analysis of Variance statistical procedures.

Four research questions guided the study:

1. In which of three group contexts, pair, small group or large group, are students most often instructed in the second-language classroom?
2. In which activity, writing, speaking, listening, thinking, or reading, are students most often engaged in the second-language classroom?
3. In which of three group contexts are students most often nonengaged in the second-language classroom?
4. What is the relationship between group size and the and the engaged activity of students in the second-language classroom?

Summary of Findings

Using the research questions from the study as a schema, the researcher arrived at the following findings based upon the analyzed data:

1. Students are most often instructed in the large group (61%, n = 4,051), and they are most often engaged in writing (41%, n = 2,705).
2. Students are most often nonengaged in the large group (75%, n = 95), and that nonengagement is divided among three areas: waiting (32%, n = 40), interim (20%, n = 25), and offtask (23%, n = 30).
3. Statistically significant ($p < .01$) differences exist within the small [$F(4,68) = 5.53$] and large [$F(4,68) = 13.26$] groups among the activities under investigation: writing, speaking, listening, thinking, and reading. No differences were found within the pair group among the activities in the study ($F = 0.84$). Further data analysis indicated

statistically significant ($p < .01$) differences among the groups on time spent writing [$F(2,34) = 22.90$], speaking [$F(2,34) = 5.59$], thinking [$F(2,34) = 10.88$], and reading [$F(2,34) = 9.58$]. No differences were found between groups for the listening activity ($F = 0.96$).

4. Results of the Duncan Post Hoc Comparison Tests showed that in this study, students were most often instructed in the large-group context where there was more writing done than speaking, listening, thinking, or reading. The tests also showed that in the small group more reading than speaking, listening, or thinking, and more writing than thinking was done.

Conclusions

The findings of this study led the researcher to formulate the following conclusions.

Conclusion One

The students involved in this study were instructed in the large-group context 61% of the time.

Even though students were involved in pair and small-group instructional activities, they spent more than half the time in the large-group setting where they were involved with the writing, speaking, listening, and thinking activities.

Several reasons for the use of large-group instruction are apparent. During conversations with this researcher, annotated in the field notes, the teacher indicated that she felt she had greater control of the class in the large group. She also stated that it was simpler to plan for large-group instruction than for pairs and small groups since the curricular materials purchased for use in the class had a greater emphasis on large-group activities than pair and small-group activities. Further, the researcher noted that students responded more readily to the teacher and were more comfortable in the large group.

This conclusion relates to Krashen's (1982) Monitor Model Theory, more specifically, the Affective Filter Hypothesis.

Krashen states that comprehensible input can have its effect on language acquisition in the classroom only when certain affective conditions are optimal: (1) the student is motivated; (2) the student has self-confidence and a good self-image; and (3) the student's level of anxiety is low. In the case of this study, observational data indicated that students were motivated, and their anxiety levels were low in the large group. It was not conclusive whether or not students had a good self-image; however, they were confident as they completed assigned tasks in the classroom.

Similarly, findings of a large-scale study conducted by Nerenz and Knop (1982) indicate that the amount of time spent in various group contexts by students varied considerably with students spending more than half their time in large-group settings. The findings of this study support the position taken by second-language practitioners who purport that large group is better than small group mainly because the process of planning seems simpler.

Conclusion Two

Students in this study did more reading than speaking, listening, or thinking in the small-group context.

In this study, students did more reading (7%, n = 466) in small groups than they did speaking (4%, n = 300), listening

(3%, n = 210), or thinking (3%, n = 203). Based upon field notes and in-class observations made by the researcher, the teacher in this study had students do more reading than other activities in small groups because she used the small group as a means to help students develop successful reading strategies. The following schemas, used by the teacher and documented by Omaggio (1986) were implemented: 1) to have students "think aloud" as they attempted to comprehend the printed text, and 2) to identify students' reading strategies to discern whether or not they were effective.

In the first instance, the teacher's decision to meet with students in a small group was made because she could specifically focus her attention on a few students at a time rather than the entire class. Her primary objective was to diagnose reading difficulties that students might have. In the second instance, the teacher used a checklist of successful reading strategies, such as, contextual guessing, the identification of categories of words, and the recognition of cognates to record whether or not a student's use of such strategies was satisfactory, unsatisfactory, or nonexistent. This checklist then served as a diagnostic tool in helping students improve their own reading techniques.

Conclusion Three

In the second-language classroom under investigation in this study, students were observed engaged in writing activities 41% of the time.

More than 2,500 occurrences of writing by students in this study were collected for analysis. This number represents the largest number of codes for any of the five activities that were identified for investigation. Based upon conversations between the teacher in this study and the researcher, it was noted that writing was one of the school division's major instructional objectives. Therefore, the development of writing skills in this teacher's classroom was, of necessity, a priority.

A review of second-language expert viewpoints differs considerably with the findings of this researcher. Nerenz (1979), found that only 2% of the total available class time was devoted to writing. Practice activities were similar to those observed in this study: transcription, dictation, guided composition, and free compositions. Transcription involved translating short passages from French to English. For dictation, students wrote sentences in French on the board as they were read by the teacher. Guided compositions were completed by students with the help of the workbook, while free compositions were completed with very little direction from the teacher. Instruction in writing,

at least in Nerenz's study, was not a priority among the speaking, listening, and reading activities observed in the classrooms where she collected her data.

Furthermore, Rivers (1987) contends that in-class writing is neglected in many second-language classrooms. Given that writing involves complex operations, it follows that the teaching of writing is no easy task to be accomplished in a few spare minutes of class time. The teacher in this study, however, devoted a great deal of time to the teaching of writing and made every effort to combine writing instruction with other skill areas, thereby making it more meaningful for students.

The researcher also observed and documented in his field notes that the classroom where the instruction of writing took place was an environment that encouraged student participation and engagement. This conclusion also relates to Krashen's (1982) language acquisition model. More specifically, the following implications for classroom practice that were derived from that model are applicable to this study and the classroom where data were collected.

1. The classroom provided comprehensible input for students in an environment conducive to a low affective filter. From the researcher's observation, students were motivated, had self-confidence, and had a good self-image. They were also comfortable in the classroom environment because they were in a context in which the teacher was in charge.

2. Optimal input in this classroom was interesting and relevant for students. The researcher observed from the video tape data that students were enthusiastic about their involvement with the curricular content under consideration in the classroom.
3. Error correction in this classroom was minimized by the teacher; therefore, the affective filter was significantly reduced, making the goal of language acquisition more realistic for students. This was particularly true in the large-group setting where the teacher's motive was to lower students' anxiety level by not embarrassing them in front of their peers.

In this classroom, the teacher initiated group and activity exercises that were effective in reducing student anxiety in accordance with Krashen's (1982) Affective Filter Theory.

In sum, writing in this study was a priority in the classroom where data collection took place, therefore, this researcher observed a greater number of occurrences of writing than did some researchers cited here who conducted similar investigations on large groups. Also, according to the teacher in whose classroom the data were collected, one of the school division's objectives was the development of writing skills.

Recommendations

The primary concern of this study was to discern whether or not group size and student engaged activity were related. Four research questions guided this descriptive study and led the researcher to conclude that significant differences exist within the small and large groups among the writing, speaking, listening, thinking, and reading activities being investigated. It was also noted that significant differences existed among the groups on time spent writing, speaking, thinking and reading. More writing than speaking, listening, thinking, or reading was done in the large group, and more reading than speaking, listening, or thinking was done in the small group (see Tables 7 and 8).

Recommendation One

Further research on student engagement in pair, small-group, and large-group contexts in the second-language classroom needs to be conducted.

Much has been written on the subject of student engagement in various disciplines (Anderson, Evertson, & Brophy, 1979; Bloom, 1981; Fisher & Berliner, 1985; Good & Brophy, 1984; Harnischfeger & Wiley, 1978; Rosenshine, 1979), but little has been written on student engagement in the second-language

classroom by researchers who are experts in the field. There is a dire need to expand the research on engagement so that students learning a language in a second-language classroom setting may have greater opportunities to become proficient in the language they are studying. Some possible research questions are:

- When, during the class hour, are students most often engaged?
- How can the four second-language skill areas, writing, speaking listening, and reading, best be sequenced to provide for maximum engagement?
- What is the relationship between engagement and the proficiency of students studying second languages?
- How do learning tasks and the content of these tasks relate to student engagement?
- How can second-language teacher education programs be more responsive to training teachers how to maximize engagement activities in their classrooms?

Recommendation Two

Research on the use of group instruction in the L2 classroom needs to be continued.

Although much has been argued in favor of pair, small group, and large group work in the L2 classroom, many teachers are still reluctant to have students do in groups what they feel they can do more conveniently, quickly, and accurately in a teacher-controlled, whole-class situation (Kramsch, 1981). Stevick (1982) suggests that their apprehensions stem largely from their tendency to equate good teaching with maintenance of discipline and order in the classroom. Even when seating arrangements are "loosened up" for greater flexibility, the authority figure of the teacher dominates the classroom and the interaction taking place within it. Such interaction characteristically involves the role functions of information giving and getting (Boylan & Omaggio, 1980).

Research in other disciplines has shown that in a predominately teacher-centered classroom, the teacher disseminates information (content, directions, assignments, etc.) to students who passively receive it (Bloom, 1981; Gagne & Briggs, 1979). At a later point the teacher solicits information from the students as a measure of how well they assimilated the original

information. Thus, the teacher and students function alternately as information givers and information getters.

Many L2 practitioners would probably admit that their classrooms function in the "giver-getter" mode and their students are manipulators of language forms rather than proficient users of the language (Rivers, 1987). Literature, then, in the area of communicative competence needs to be examined to help bring about a change in the "giver-getter" classroom function. A possible focus for further investigation is:

How effectively do students learn in various group contexts without the teacher as the major facilitator of instruction?

Recommendation Three

An experimental study focused on group size and engaged activity needs to be conducted in order to make findings related to learning outcomes more conclusive.

This study is descriptive and does not confirm or dispel the notion that engagement increases as group size increases. An experimental study is needed that would take into account other factors: 1) a larger, more representative sample, 2) a longer period of observation, 3) the inclusion of more than one second language, and 4) the inclusion of other grade levels. In addition to certain experimental conditions, an ethnographic study

could provide additional data on the topic of this research, specifically: teacher rationale for group size, teacher attitude toward group size, design of curricular materials, dominant mode of instruction in the school, administrative preference for instructional group size, and the grade level of students.

This study has investigated issues in L2 learning and teaching from a perspective in which group size and engaged student activity have been the main foci. Data collected for this study indicate that students are most often instructed in the large group context. Also, writing was identified as the dominant engaged activity while speaking, listening, thinking, and reading assumed lesser roles in the instructional schema of this classroom. Although some of the results obtained in this investigation were significant, they cannot be regarded as generalizable. Several mitigating factors indicate the need for a follow-up to this study: a) more than one second-language teacher should be observed, b) several second-language classes should be included in the data collection, c) a longer period of observation must be considered, and d) several grade levels should be included.

In conclusion, the investigation into group size and engagement in the second-language classroom must be continued on

both an experimental and a qualitative level. The scope of subsequent studies must be broad in nature so as to provide second-language practitioners with ways in which they can utilize group instruction in their classrooms and thereby, maximize opportunities for student learning as well as language proficiency.

Recommendations for Second-Language Practitioners

For second-language practitioners, implications of the findings of this study are varied and must be interpreted within the context of the limitations of the study. It is also important to note that this study focused on the teaching style and instructional circumstances of only one classroom teacher. It is the intent of the researcher, however, to present here some practical recommendations for teachers making decisions about which kinds of skills can best be taught in which kinds of group settings.

The large-group setting proved to be the best context for development of the writing skill where students completed workbook and worksheet exercises, wrote sentences dictated by the teacher on the blackboard, and composed short paragraphs. It is recommended then, that teachers planning writing instruction use this setting for highly structured student activity.

For instruction in the reading skill, the small group was significantly more useful since it enabled the teacher to provide diagnostic and individual assistance to students. The small group was especially useful in checking students' comprehension and correcting their pronunciation through modeling of correct language. Also, target students selected for the facilitation of the coding process greatly enhanced group interaction in the

the absence of the teacher. Other group members tended to look to the target student as a facilitator, thus creating a non-normative learning environment. It is recommended that small groups be used in reading instruction as a diagnostic tool, and other students be used as peer tutors.

Speaking instruction in this study was done in the large group where the choral and drill formats were utilized. Though speaking and listening are complementary skills, listening was taught in all three group settings. The recommendation is to utilize the large group for drill work and all three groups for listening. For less structured interaction, the small group is appropriate.

Finally, a word about the variable called "thinking" in this study. As a variable, thinking occurred significantly more often in the large-group setting in teacher-to-students interactions rather than in student-to-student interactions or in any other setting. The kinds of student responses that resulted from these periods of thinking represented single word or short sentence utterances. It is recommended that teachers use the large group for teaching "thinking" that involves changes in structure, such as verb conjugation, or the completion of a set pattern, such as a sentence or paragraph where certain words or ideas have been omitted. Once again, the small-group context is more suitable for thinking required for free responses, so as to minimize the adverse effects of whole-class pressure to respond.

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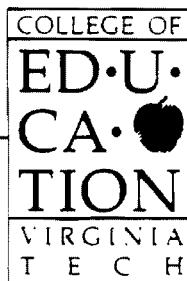
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APPENDICES

Appendix A

Human Subjects Exemption Request



MEMORANDUM

TO: Dr. Thomas M. Sherman
FROM: Sidney E. Crumwell, Jr.
DATE: December 6, 1988
SUBJECT: Human Subjects Exemption Request

The systematic use of groups in the second-language classroom provides opportunities for students to learn about the lives, social patterns, the values of people of other countries, and to become acquainted with the phonological, semantic, and the syntactic system of the language they are studying.

Of the various grouping strategies utilized in schools, second-language researchers agree that pair and small-group instruction provide efficient contexts for language learning (Omaggio, 1986). On the other hand, many second-language practitioners still prefer large-group, or whole-class instruction and contend that it is more manageable for them (Kramsch, 1981). This study, then, will investigate group size and its effect on students as they write, speak, listen, think, and read in French in elementary school second-language classes.

Fifteen 45-minute classroom observations will be videotaped. The tapings will involve fourth, fifth, and sixth grade students. Prior to each tape session, six target students will be selected and filmed in five-second intervals called "snapshots." After the 15 observations have been recorded, the data will be coded using the Foreign Language Observational System (FLOS) developed by Nerenz and Knop (1982).

To provide for student anonymity, the names of the students who have been videotaped will not be published in any way. Instead, numerical codes will be used to refer to participants. Also, all data reports will refer to group rather than individual results. Therefore, it will not be possible to discern the identity of any particular student.

VIRGINIA TECH

RESEARCH DIVISION

BLACKSBURG, VA 24061-0244
(703) 231-5281

April 4, 1989

TO: Sidney E. Crumwell, Jr.
Curriculum & Instruction
Campus - 0313

FROM: E. R. Stout *[Signature]*
Associate Provost for Research

SUBJECT: IRB Exemption/"Small-group instruction in the second-language classroom: the relationship of group size, amount and type of speech, and engagement and nonengagement activities to student learning".

I have reviewed your request to the IRB for exemption for the above referenced project. I concur that the research falls within the exempt status.

ERS:°

cc: Thomas M. Sherman, C&I

Appendix B

Statement of Informed Consent

Statement of Informed Consent

By signing this form, you agree to take part in a research study designed to improve second-language teaching and learning in elementary French classes.

Your French class will be videotaped for five weeks during which time Sidney Crumwell, a doctoral candidate at Virginia Tech, will observe you write, speak, listen, think, and read in French and whether or not you work with another student in the class, in a small group, or in a large group.

All of the information collected on videotape in this study will be kept strictly confidential. No one in your class will be identified by his or her real name.

If you decide that you do not wish to continue your participation in this study, please contact your French teacher. You will not be penalized in any way if you decide to withdraw.

For further information, please contact:

Dr. Judith L. Shrum, Associate Professor
Division of Curriculum and Instruction,
Foreign Languages and Literatures
Virginia Tech
300C War Memorial Hall
703-231-5537

Thank you for participating in this study.

Signature of Parent/Guardian

Signature of Student

S. E. Crumwell, Jr., Researcher Date

Appendix C

The Foreign Language Observational System

Foreign Language Observational System (Nerenz and Knop, 1982)

	Student No. Start _____ Stop _____	_____	_____	_____	_____	_____	_____	Other _____
	Transition	_____	_____	_____	_____	_____	_____	_____
	Content Skill-getting Skill-using	_____	_____	_____	_____	_____	_____	_____
	Individual Pair Small Group Large Group	_____	_____	_____	_____	_____	_____	_____
	MATERIALS	Paper/Pencil Printed Matter Visual Aid Audio Visual Target Lang English	_____	_____	_____	_____	_____	_____
	STUDENT ACTIVITIES	Eng-writing Eng-oral Eng-listening Eng-covert Eng-reading Noneng-waiting Noneng-interim Noneng-offtask Target Lang English	_____	_____	_____	_____	_____	_____
	INTERACTIONS	Target Student Small Group Large Group Teacher Target Student Small Group Large Group Teacher Repetitive Communicative Target Lang English	_____	_____	_____	_____	_____	_____
TEACHER ACTIVITIES		Structuring Modeling Questioning Explaining Mon-Evaluating Man-Discipline	_____	_____	_____	_____	_____	_____

Appendix D

Definitions of Terms as Used in this Study

Definitions of Terms as Used in this Study

Activity	A specified form of supervised action defined in this study as writing, speaking, listening, thinking, or reading.
Code	A system using the Foreign Language Observational System in which an occurrence of writing, speaking, listening, or thinking is recorded on a codesheet every five seconds.
Engaged time	A subset of allocated time during which it is assumed that students are actively learning the curricular content under consideration.
Engaged time (thinking)	Student engagement time that involves pondering the response to a question or problem posed by the teacher.
Engaged time (listening)	Student engagement time that involves listening.
Engaged time (oral)	Student engagement time that involves speaking.
Engaged time (writing)	Student engaged time that involves written tasks.
Engaged time (reading)	Student engaged time that involves reading.
FLES	(F)oreign (L)anguage in the (E)lementary (S)chool
Individual	One student working alone.
Large group	Nine or more students working together.

Native language	The language first learned by members of the dominant culture. The native language is English for purposes of this study.
Non-engaged time	A subset of allocated time during which it is assumed that students are not actively learning the curricular content under consideration.
Non-engaged (interim)	A student behavior that involves doing something related to the task (i.e., getting out books, finding the page, sharpening a pencil) but not the task itself.
Non-engaged (off-task)	Student behavior that involves not attending to the assigned task.
Non-engaged (waiting)	Student behavior that involves waiting for directions or materials while the teacher works with another student.
Occurrence	An observable incidence of writing, speaking, listening, thinking, or reading that takes place in a classroom setting.
Second language (L2)	Synonymous with target language.
Small group	Three to eight students working together.
Student	An elementary school child in the fourth, fifth, or sixth grade for whom L2 instruction is arranged.
Target language	The language being learned by students that is different from that normally spoken in their living environment; also referred to as second language. In this study, the target language is French.

Appendix E

100 Unambiguous Isolated Events for Validity

100 Unambiguous Isolated Events for Validity(Criterion Observer and Researcher)

Number		Events
1	OS:	Reads the following question words from the board: qui, ou, qu'est-ce que, combien, and quand.
2	OS:	Listens to exercise instructions on cassette tape.
3	TS:F(2,1):	Says "Il fait froid" after the teacher.
4	TS:M(1,1):	Writes answers to the exercise in the cahier.
5	TS:F(2,6):	Listens to the cassette tape before completing the answer to a question.
6	TS:F(4,1):	Sharpens a pencil.
7	OS:	Repeats dates after the speaker on cassette tape in French.
8	TS:M(1,5):	Tries to find the lesson page in his cahier after it closes.
9	OS:	Turns to the next page of the lesson.
10	OS:	Sings the "Date Song" along with the speaker on the cassette tape in French.
11	TS:M(3,5):	Responds to a question from the teacher.
12	OS:	Listens to the cassette tape for information about dates.
13	OS:	Asks a question about calendar dates in French.
14	TS:M(3,5):	Reads song lyrics aloud in class.
15	TS:(M1,1):	Listens to the word of the "Date Song" from the cassette tape.
16	OS:	Says "Quelle est la date aujourd'hui?" after the speaker on cassette tape.

- 17 OS: Listens as other students sing the "Date Song."
- 18 TS:F(4,1): Writes answers to the exercise in the cahier.
- 19 TS:F(2,1): Reads directions from the cahier.
- 20 OS: Turns to the next page of the lesson.
- 21 OS: Sharpens a pencil.
- 22 TS:M(1,1): Says the word "qui" to the class.
- 23 TS:F(2,1): Thinks about what "combien" means.
- 24 OS: Sings the "Date Song" aloud.
- 25 TS:F(2,6): Listens to directions from the tape.
- 26 TS:M(3,5): Writes answers to the exercise in the cahier.
- 27 OS: Turns to the next page of the lesson.
- 28 OS: Says the words "qui" and "ou" for the class.
- 29 OS: Repeats all of the question words for the class.
- 30 TS:M(1,1): Responds to the question "Où est le stylo?"
- 31 OS: Reads three question words from the board.
- 32 TS:F(4,1): Writes the five question words from the board.
- 33 OS: Opens the cahier to the lesson.
- 34 OS: Sharpens a pencil.
- 35 OS: Listens to instructions from the teacher.
- 36 OS: Writes answers to the exercise in the cahier.
- 37 TS:M(3,5): Tells the class his birthday in French.
- 38 TS:F(2,1): Says the date in French.
- 39 TS:M(3,5): Tells the class his birthday in French.

- 40 OS: Looks for a pencil to complete the exercise.
- 41 OS: Reads the exercise in the cahier.
- 42 OS: Sharpens a pencil.
- 43 OS: Listens to the teacher pronounce the date in French.
- 44 TS:F(4,1): Stares out of the window.
- 45 TS:M(1,1): Responds to an exercise question in French.
- 46 TS:F(2,6): Whispers to a friend in the next row.
- 47 OS: Reads a part of the exercise with the speaker on the cassette tape.
- 48 OS: Opens the cahier to the exercise.
- 49 OS: Reads exercise directions with the teacher.
- 50 OS: Sharpens a pencil.
- 51 TS:M(3,5) Reads the exercise in the cahier.
- 52 TS:F(4,1): Flips pages in the cahier.
- 53 TS:M(1,1): Listens to directions on the cassette tape.
- 54 TS:F(2,6): Reads directions from the cahier.
- 55 OS: Stares out of the window.
- 56 TS:F(2,1): Listens to the exercise on cassette tape.
- 57 OS: Talks to the person in the next seat.
- 58 OS: Listens to the exercise on cassette tape.
- 59 OS: Says the date in French with the teacher.
- 60 TS:M(3,5): Turns to the next page of the lesson.
- 61 OS: Listens to the exercise on the cassette tape.

- 62 TS:F(4,1): Repeats with the cassette tape.
- 63 TS:M(1,5): Repeats with the cassette tape.
- 64 OS: Sings with the cassette tape and other class members.
- 65 OS: Reads the words of a song with the teacher.
- 66 TS:F(2,1): Sings with the cassette tape and other class members.
- 67 OS: Listens to directions from the teacher.
- 67 OS: Sharpens a pencil.
- 68 TS:F(4,1): Repeats the words of a song after the teacher.
- 69 OS: Listens to exercise directions on cassette tape.
- 70 TS:F(2,6): Turns to the next page of the lesson in the cahier.
- 71 TS:M(1,1): Reads the exercise in the cahier.
- 72 OS: Thinks about the answer to one of the cahier questions.
- 73 TS:M(3,5): Listens to the teacher read from the cahier.
- 74 OS: Repeats phrases from the cassette tape with other students.
- 75 OS: Listens to directions from the teacher.
- 76 OS: Writes answers to the exercise in the cahier.
- 77 OS: Listens to the teacher read from the cahier.
- 78 TS:M(1,1): Says his birthday in French.
- 79 TS:M(1,5): Reads directions from the cahier.
- 80 TS:F(2,1): Responds to a question from the teacher.
- 81 OS: Stares out of the window.

- 82 OS: Reads answers from an exercise on the board.
- 83 TS:M(3,5): Thinks about how to say his name in French.
- 84 OS: Repeats phrases after the speaker on the cassette tape.
- 85 OS: Reads an exercise question from the cahier.
- 86 TS:F(4,1): Turns to the next page of the lesson.
- 87 OS: Repeats an exercise question from the tape.
- 88 TS:M(1,1): Reads an exercise question from the cahier.
- 89 OS: Sharpens a pencil.
- 90 TS:F(2,1): Repeats a phrase after the teacher.
- 91 TS:F(2,6): Reads an exercise question from the cahier.
- 92 OS: Looks out of the window at another class.
- 93 TS:M(2,1): Says the date in French.
- 94 TS:M(1,1): Responds to the question "C'est quand ton anniversaire?"
- 95 TS:M(1,5): Tries to figure out what "aujourd'hui" means.
- 96 TS:M(3,5): Turns to the next page of the lesson.
- 97 OS: Looks out into the hall at other students.
- 98 TS:M(1,1) Listens to the exercise on cassette tape.
- 99 TS:M(3,5): Listens to the exercise on cassette tape.
- 100 TS:F(2,3): Sings a song about the days of the week in French while other students in the class sing along with her.

100 Unambiguous Isolated Events for ValidityCodes by the Criterion Observer

<u>Event</u>	<u>Code</u>	<u>Event</u>	<u>Code</u>	<u>Event</u>	<u>Code</u>	<u>Event</u>	<u>Code</u>
1	4, 6, 13	26	4, 6, 13	51	3, 9, 14	76	4,11, 14
2	4, 7, 13	27	4, 7, 13	52	4, 6, 14	77	4, 6, 14
3	4, 6, 13	28	4, 5, 13	53	4, 6, 13	78	4, 8, 13
4	4, 5, 13	29	4,11, 14	54	4, 9, 13	79	4, 7, 13
5	4, 7, 13	30	4, 6, 13	55	4,12, 14	80	4, 6, 13
6	4,13, 14	31	4, 6, 13	56	4, 7, 14	81	4, 7, 13
7	4, 6, 13	32	4, 6, 13	57	4, 7, 14	82	4, 5, 13
8	1,11, 14	33	4, 6, 13	58	1, 5, 13	83	4, 7, 13
9	1,11, 14	34	4, 5, 13	59	4, 7, 13	84	4, 8, 13
10	4, 6, 13	35	4, 9, 13	60	4,12, 14	85	4, 6, 14
11	4, 6, 13	36	3, 6, 13	61	3, 5, 13	86	2, 5, 13
12	4, 7, 13	37	4, 7, 13	62	4, 6, 13	87	4, 5, 13
13	4, 6, 13	38	4, 5, 14	63	4,11, 14	88	2, 6, 13
14	4, 6, 13	39	4, 6, 13	64	4,12, 14	89	4, 6, 13
15	4, 6, 13	40	4, 6, 13	65	4, 5, 13	90	4, 6, 13
16	4, 6, 13	41	4, 6, 13	66	4, 7, 13	91	4, 6, 13
17	2, 6, 13	42	4, 8, 13	67	3, 5, 13	92	4, 8, 13
18	4,12,	43	4,11, 14	68	4, 6, 13	93	4, 6, 13
19	4, 7, 13	44	2, 5, 13	69	4, 6, 13	94	4, 6, 14
20	4, 5, 13	45	4, 9, 13	70	4, 6, 13	95	4,11, 14
21	1, 6, 13	46	4, 7, 13	71	4, 6, 13	96	4, 6, 13
22	4,11, 14	47	2,12, 14	72	4, 7, 14	97	4, 6, 13
23	4, 6, 13	48	4, 6, 13	73	1,12, 14	98	4, 6, 14
24	4, 6, 13	49	4,12, 14	74	4, 6, 13	99	4, 6, 13
25	4, 8, 13	50	4, 6, 13	75	3, 6, 13	100	4, 6, 13

100 Unambiguous Isolated Events for Construct ValidityCodes by the Researcher

<u>Event</u>	<u>Code</u>	<u>Event</u>	<u>Code</u>	<u>Event</u>	<u>Code</u>	<u>Event</u>	<u>Code</u>
1	4, 6, 13	26	4, 6, 13	51	4, 9, 14	76	4,11, 14
2	4, 7, 13	27	4, 7, 13	52	4, 6, 14	77	4, 6, 14
3	4, 6, 13	28	4, 5, 13	53	4, 6, 13	78	4, 8, 13
4	3, 5, 13	29	4,11, 14	54	4, 9, 13	79	4, 7, 13
5	4, 7, 13	30	4, 6, 13	55	4,12, 14	80	4, 6, 13
6	4,13, 14	31	4, 6, 13	56	4, 7, 14	81	4, 7, 13
7	4, 6, 13	32	4, 6, 13	57	4, 7, 14	82	4, 5, 13
8	1,11, 14	33	4, 6, 13	58	1, 5, 13	83	4, 7, 13
9	1,11, 14	34	4, 5, 13	59	3, 7, 13	84	4, 8, 13
10	4, 6, 13	35	4, 9, 13	60	4,12, 14	85	4, 6, 14
11	3, 6, 13	36	3, 6, 13	61	3, 5, 13	86	2, 5, 13
12	4, 7, 13	37	4, 7, 13	62	4, 6, 13	87	4, 5, 13
13	4, 6, 13	38	4, 5, 14	63	4,11, 14	88	2, 6, 13
14	4, 6, 13	39	4, 6, 13	64	4,12, 14	89	4, 6, 13
15	4, 6, 13	40	4, 6, 13	65	4, 5, 13	90	4, 6, 13
16	4, 6, 13	41	4, 6, 13	66	4, 7, 13	91	4, 6, 13
17	2, 6, 13	42	4, 8, 13	67	3, 5, 13	92	4, 8, 13
18	4,12,	43	4,11, 14	68	4, 6, 13	93	4, 6, 13
19	4, 7, 13	44	2, 5, 13	69	4, 6, 13	94	4, 6, 14
20	4, 5, 13	45	4, 9, 13	70	4, 6, 13	95	4,11, 14
21	1, 6, 13	46	4, 7, 13	71	4, 6, 13	96	4, 6, 13
22	4,11, 14	47	2,12, 14	72	4, 7, 14	97	4, 6, 13
23	4, 6, 13	48	4, 6, 13	73	1,12, 14	98	4, 6, 14
24	4, 6, 13	49	4,12, 14	74	4, 6, 13	99	4, 6, 13
25	4, 8, 13	50	4, 6, 13	75	3, 6, 13	100	4, 6, 13

Appendix F

Validity and Reliability Worksheets

Intraobserver Agreement Worksheet First (1) and MidPoint (2) Observations Of Classroom Activity Using FLOS																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Number of Tallies for Observation 1	5	5	5	45	6	21	25	6	7	7	10	15	52	18	227	Total Tallies for Observation 1
Percentages for Observation 1	2	2	2	20	3	9	11	3	3	3	4	7	23	8	100	Total Percentages for Observation 1
Number of Tallies for Observation 2	5	5	5	44	5	21	24	6	7	7	10	15	51	18	223	Total Tallies for Observation 2
Percentages for Observation 2	2	2	2	20	2	9	11	3	3	3	4	7	23	8	99	Total Percentages for Observation 2
Differences of Percentages for Observations 1 and 2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	Difference of Percentages 1 and 2
	$= \frac{P_c - P_e}{100 - P_e} \quad P_c = 99 \quad P_e = 18$ $= \frac{99 - 18}{100 - 18}$ $= .98$															

Intraobserver Agreement Worksheet Midpoint (2) and Final (3) Observations Of Classroom Activity Using FLOS																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Number of Tallies for Observation 2	0	6	7	32	6	30	19	3	4	0	10	16	53	46	232	Total Tallies for Observation 2
Percentages for Observation 2	0	3	3	14	3	13	8	1	2	0	4	7	23	20	101	Total Percentages for Observation 2
Number of Tallies for Observation 3	0	4	6	30	6	29	19	3	4	0	8	16	50	45	220	Total Tallies for Observation 3
Percentages for Observation 3	0	2	3	14	3	13	9	1	2	0	4	7	23	20	101	Total Percentages for Observation 3
Differences of Percentages for Observations 2 and 3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	Difference of Percentages 2 and 3
	$= \frac{P_o - P_e}{100 - P_e}$ $P_o = 98$ $P_e = 11$ $= \frac{98 - 11}{100 - 11}$ $= .97$															

Intraobserver Agreement Worksheet First (1) and Final (3) Observations Of Classroom Activity Using FLOS																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Number of Tallies for Observation 1	6	4	5	27	4	30	16	4	4	3	9	12	48	32	204	Total Tallies for Observation 1
Percentages for for Observation 1	3	2	2	13	2	15	8	2	2	3	4	6	24	16	100	Total Percentages for Observation 1
Number of Tallies for Observation 3	5	3	4	27	3	28	14	3	3	3	8	10	47	31	189	Total Tallies for Observation 3
Percentages for Observation 3	3	2	2	14	2	15	7	2	2	2	4	5	25	16	101	Total Percentages for Observation 3
Differences of Percentages for Observations 1 and 3	0	0	0	1	0	0	1	0	0	1	0	1	1	0	5	Differences of Percentages 1 and 3
	$= \frac{P_o - P_c}{100 - P_c}$ $P_o = 95$ $P_c = 17$ $= \frac{95 - 17}{100 - 17}$ $= .93$															

Interobserver Agreement Worksheet Comparison of the Researchers' Codings to those of the Criterion Observer Observation: Ten Minutes of Classroom Activity															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Number of Tallies for Criterion Observer	0	0	0	30	1	0	22	4	1	0	0	2	0	0	60 Total Tallies for Criterion Observer
Percentages for Criterion Observer	0	0	0	50	2	0	37	7	2	0	0	3	0	0	101 Total Percentages for Criterion Observer
Number of Tallies for Researcher	0	0	0	26	3	0	20	3	1	0	0	2	0	0	55 Total Tallies for Researcher
Percentages for Researcher	0	0	0	47	5	0	36	5	2	0	0	4	0	0	99 Total Percentages for Researcher
Differences of Percentages for Criterion Observer and Researcher	0	0	0	3	3	0	1	2	0	0	0	1	0	0	10 Differences of Percentages of Criterion Observer and Researcher
	$= \frac{P_o - P_e}{100 - P_e}$ $P_o = 90$ $P_e = 18$ $= \frac{90 - 18}{100 - 18}$ $= .87$														

Interobserver Agreement Worksheet Researcher to Criterion Observer Observations: One Hundred Isolated Umambiguous Events																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Number of Tallies for Criterion Observer	5	4	5	86	6	38	21	4	4	0	10	15	64	30	292	Total Tallies for Criterion Observer
Percentages for Criterion Observer	2	1	2	29	2	13	7	1	1	0	3	5	22	10	98	Total Percentages for Criterion Observer
Number of Tallies for Researcher	5	4	4	83	6	36	20	4	4	0	10	13	63	28	280	Total Tallies for Researcher
Percentages for Researcher	2	1	1	30	2	13	7	1	1	0	3	5	22	10	98	Total Percentages for Researcher
Differences of Percentages for Criterion Observer and Researcher	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	Differences of Percentages of Criterion Observer and Researcher
	$= \frac{P_o - P_e}{100 - P_e}$ $P_o = 98$ $P_e = 19$ $= \frac{98 - 19}{100 - 19}$ $= .98$															

VITA

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EDUCATION 1984 Fall to Present, Virginia
 Polytechnic Institute and State
 University, Postmaster's Study,
 Ed.D., C & I, 1990

C.A.G.S., Ed., June 1987

Major: Curriculum and Instruction
Second Language Education
Cognate: English as a Second
Language

M.A.T., Ed., 1975, Lynchburg College

Major: Elementary Education

A.B., Ed., 1969, Benedict College

Major: Secondary Education
French

PROFESSIONAL EXPERIENCE

1988 to Present Virginia Polytechnic Institute and
 State University

Director, Tomorrow's Teachers
Minority Recruitment Program

Assistant to the Dean,
Undergraduate Studies and
Teacher Certification

Instructor, Division of
Curriculum and Instruction

1984 - 1988 Virginia Polytechnic Institute and
 State University

Graduate Assistant, College of
Education

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PROFESSIONAL EXPERIENCE (continued)

1975 - 1984	Lynchburg City School System Teacher, Elementary and Middle Education (Mathematics, Science, Social Studies, English and Reading)
1972 - 1975	Virginia Seminary and College Instructor of French and Administrative Assistant to the President
1969 - 1972	United States Army Clerical Administrator and Flight Operation Coordinator (Fort Gordon, GA, Fort Jackson, SC, Fort Rucker, AL, The Republic of Vietnam, Fort Campbell, KY)

PROFESSIONAL CERTIFICATION

Post Graduate Professional Certificate (Virginia)	French Elementary (Grades 4-8) (Concentrations: Math, Science, Social Science, English) English as a Second Language Assistant Superintendent for Instruction Director of Instruction Secondary Supervisor Supervisor of French and ESL General Supervisor
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PROFESSIONAL ACTIVITIES

- | | |
|---------------|--|
| 1988 to 1989 | Presenter, Workshop: Computer Familiarization (APPLE, IBM PC) for second-language preservice teachers. |
| | Assistant Researcher, REFLES (Re-vitalized Foreign Language in the Elementary School)
Project funded by Radford City Schools. |
| | Presenter, EDCI 5780 (Foreign Language Methods): Computer Uses for inservice teachers. |
| 1986 (Summer) | Instructor, Foreign Language Camps (Computer Uses [APPLE] and French). |
| | Participant, Regional Conference on Teacher Certification (Roanoke, VA). |
| 1986 (Fall) | University Supervisor, Second Language and English as a Second Language preservice teachers. |
| | Assistant Researcher, ROSLI (Reflections on Second Language Instruction)
Project funded by Provost's EXXON. |
| | Presenter, ACTFL (American Council on the Teaching of Foreign Languages) - 20th Annual Conference Dallas, TX
Paper: "What's Going on Here? Opportunities to Learn in a FLES Classroom." |
| | Participant, FLAVA (Foreign Language Association of Virginia) Roanoke, VA |

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PROFESSIONAL MEMBERSHIPS

Alpha Kappa Mu Honor Society (AKM)
Phi Delta Kappa Professional Education Fraternity (PDK)
Modern Language Association (MLA)
American Council on the Teaching of Foreign Languages (ACTFL)
Northeast Conference on the Teaching of Foreign Languages (NCTFL)
Foreign Language Association of Virginia (FLAVA)
Kappa Alpha Psi Fraternity (KAP)

Date of Birth: September 6, 1947

Signature: Sidney E. Crumwell, Jr.