

The Impact of Scheduling on Curriculum Consultation and Information Skills Instruction: Part One, The 1993-94 AASL/Highsmith Research Award Study

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This first part of the 1993-94 AASL/Highsmith Research Award study focusing on the consultation and teaching roles of library media specialists examines relationships between the methods of scheduling students into the library media center and the consultation activity and information skills instruction performed by library media specialists. Participants were asked to list the units of classroom teachers for which they had either performed consulting tasks or taught related Information skills. In addition respondents answered questions about the planning culture of the school-i.e. whether principals set expectations for collaboration between library media specialists and teachers and whether media specialists met with teachers either as teams or individually or did not meet with teachers at all. Both scheduling and planning factors demonstrated significant relationships to the activity of library media specialists. The study was funded in 1993 by the Highsmith Corporation under an AASL/Highsmith Research Award.

The first part of this three-part study focuses on the scheduling patterns employed in library media programs and the planning culture of schools. These two factors are examined for their relationship to consulting and to information skills instruction by library media specialists. In the second part of the study external conditions of contract and certification requirements and full-time/part-time status are examined for their relationship to consulting and information skills instruction. In the final part we examine collaborative planning.

Elementary school library media programs face an ongoing controversy: should the way in which students are scheduled into the library media center reflect the model of a classroom or of a library? In other words should children go to the library media center as a part of their class on a regularly scheduled basis or to participate in instruction based upon specific information needs?

The schedule for instruction in the elementary library media center typically has been classified as either "fixed" or "flexible." With fixed scheduling students attend a regularly scheduled class in the library media center usually on a weekly basis. The advantage of this model is that it ensures that every class has regular access and instruction. With flexible scheduling the library media specialist and the classroom teacher collaborate in scheduling classes into the library

media center to meet specific needs generated by classroom teaching and learning activities. Advocates of flexible scheduling argue that it enhances the connection between classroom activity and library media instruction in the teaching role identified in *Information Power* and increases opportunities for the library media specialist to serve in the consulting role. Findings in previous research by van Deusen suggested that the planning culture of the school was also a factor in the curriculum consultation of the library media program.

The primary purpose of this study was to investigate whether there are systematic differences in curriculum involvement between schools that use flexible scheduling schools that use fixed scheduling. That involvement includes consultation between the library media specialist and teachers and the teaching of information skills lessons association with classroom instructional units.

Four research questions were posed:

Consultative Role

1. Do library media specialists in schools with flexible scheduling engage in more consultative tasks than those who work in schools with fixed schedules?
2. Does the nature of the instructional planning culture in the school affect the frequency of consultation? *Teaching Role*
3. Are more information skills lessons taught in connection with classroom units in schools with flexible scheduling as compared with schools with fixed scheduling?
4. Do library media specialists participate in the assessment of student work more frequently in schools with flexible scheduling than in schools with fixed scheduling?

Methodology

Elementary school library media specialists were used as the population for this study. Market Data Retrieval an educational marketing firm provided a random sample of 1500 names of elementary school library media specialists who were invited by letter to join the study. Two criteria for participation in the study were applied by the researchers. First the school in which the library media specialist worked needed to include at least three grades and second those three grades had to include the third or fourth grades. The intent of these criteria was to eliminate middle schools and schools that included only grades kindergarten through grades two—two school configurations in which the organizational structure and the curriculum might influence the role of the library media specialist. Of the 1500 initial contacts 502 library media specialists indicated a willingness to participate and met the criteria for inclusion. Of these 397 returned questionnaires for a return rate of 7 percent. Two responses were anomalous and sixteen responses were unusable; these eighteen responses were not included. Seventeen responses included incomplete data and the statistical analysis program skipped these cases whenever relevant cells were void.

Participants received questionnaires that included a section that allowed them to list the names of classroom instructional units in which they were involved either as a curriculum consultant or as a teacher. For each unit the respondent indicated which of five curriculum consultation tasks the

performed for the unit and whether they taught any information skills lessons related to the unit. Respondents were asked to identify activity over a six week period between October 4 and November 12, 1993. The library media specialists were asked to identify their involvement in the following five areas of curriculum consultation:

- Gather materials for a classroom unit (Gather);
- Collaborate with the teacher in the design of the objectives of a classroom unit (Identify);
- Collaborate with the teacher in the design of teaching/learning activities (Plan);
- Teach the unit collaboratively with the teacher (Teach); and
- Collaborate with the teacher in evaluating the unit (Evaluate).

To clarify the terms a glossary was developed and enclosed the questionnaire. Entries in the glossary (figure 1) were listed in the order of their appearance in the questionnaire for ease of use by the respondents. The questionnaire included six additional questions that asked about the planning culture of the school the principals expectations of annoying between Library media specialist and teachers provisions for released time for curricular planning for individuals and teachers in the teaching contract and the certification of library media specialist.

Figure 1. Glossary

fixed schedule A group is scheduled to come to the library media center for instruction or use of resources on a regular basis (often weekly), for a set length of time, frequently for the school year.

flexible schedule The library media specialist and the teacher plan together for instruction or use of resources based on student learning needs in each curriculum unit and schedule on that basis. The schedule is arranged on an ad hoc basis and varies constantly.

collaborative planning The school library media specialist and classroom teacher share responsibility for planning both content and process goals for the unit.

cursorry planning Informal and brief planning occurs between the library media specialist and teachers for library media center involvement.

individual planning Classroom teachers plan their own curriculum and instructional units for their own classrooms with little regular involvement from other teachers.

team planning Classroom teachers meet together to plan instructional units and curriculum. Teams can be organized around grade level, multi-grade level, or content area. Team planning typically requires teams to meet on some regular basis, weekly, biweekly, or at least monthly.

identify and gather resources The library media specialist isolates materials by theme or instructional unit based on a teacher's request.

identify objectives The library media specialist and classroom teacher collaboratively plan instructional objectives for a unit, including information skills objectives.

plan activities The library media specialist and the classroom teacher collaboratively decide what they and the students will actually do.

collaborative teaching The library media specialist and the teacher share responsibility for direct instruction in the content and information skills areas and for assisting and monitoring students.

teach information skills The library media specialist inserts an isolated lesson or series of lessons into the unit, but the teacher has little or no responsibility for sharing the input or for follow-up activities; the library media specialist has little or no responsibility for the input and follow-up of instruction provided by the teacher.

evaluate the unit After the unit is completed, the library media specialist and the teacher review the unit and identify changes they would make for the next time it will be taught.

assessing student work The library media specialist participates in evaluating the students' product and process and providing feedback to the students.

Results

The Consultative Role

The first pair of research questions related to the consultative role of the library media specialist.

1. Do library media specialists in schools with flexible scheduling engage in more consultative tasks than those who work in schools with flexible schedules?
2. Does the nature of the planning culture in the school affect the frequency of consultation?

Scheduling. The data revealed that sixty participants indicated their schedules were "mixed" (i.e. some flexible and some fixed scheduling). The schedules of these participants could have been classified as flexible because these participants worked with some teachers to schedule classes a flexible basis and therefore might have the potential for more curriculum consultation with them; however these library media specialists also met with some classes on a fixed-schedule basis thus reducing their opportunity to meet the teachers.

The researchers retained three distinct groups in the schedule variable: fixed flexible and mixed. The results of statistical test ANOVA revealed that on all five curriculum consultation variables those with mixed schedules tended to resemble those with flexible schedules more than those with fixed schedules (see table 1).

Table 1. ANOVA: Curriculum Consultation and Fixed, Flexible, and Mixed Schedules

Variable	Means			P-values	
	Fixed	Flexible	Mixed	Flexible/Fixed	Flexible/Fixed
Gather	5.3	7.3	9.3	.0178	<.0001< />
Identify	1.5	4.2	3.8	<.0001< />	.0005
Plan	1.9	4.6	5.3	<.0001< />	<.0001< />
Teach	0.8	3.4	3.4	<.0001< />	<.0001< />
Evaluate	1.2	3.4	2.7	<.0001< />	.0158
N =	208	9.9	60		

The five tasks related to consultation (Gather Identify Teach and Evaluate) represent ways in which library media specialists help classroom teachers to improve instruction. The occurrences of all five curriculum consultation variables were significantly greater in schools employ flexible or mixed scheduling than in schools employing fixed schedules. This result supports the assumption that if media specialists are not bound to full teaching schedules the likelihood of their performing in a consulting e can increase.

This finding differs from an earlier exploratory study an in Iowa by van Deusen. In van Deusens 1992 study there was a significant difference only on the variable Evaluate in the curriculum consultation role of library media specialists on fixed and flexible schedules. There was a significant difference on the other curriculum consultation variables in van Deusens exploratory study only when the planning culture of the school was characterized as team planning and the schedule was characterized as flexible. The findings in the van Deusen study may differ from this study because of the characteristics of the van Deusen sample which included activity only at the fifth-grade level and Included only library media specialists from Iowa who were recommended to the researcher because of their high-performance programs.

While the findings in this study document no causal relationship between the type of scheduling and the amount of consultation between library media specialists and teachers more consultation occurred between teachers and library media specialists in those schools with flexible schedules. Perhaps schools with flexible schedules share some other common characteristics that contribute to the increased occurrence of consultation and hat those characteristics might be is worthy of further Investigation. Perhaps flexible scheduling is an indicator rather than a causal agent of the extent to which a program reflects the implementation of the consultants role identified in *Information Power*.

This study offers insight into schools using both fixed and flexible scheduling. The mixed-schedule sites showed significantly more occurrences of four of the five curriculum consultation variables than fixed-schedule sites. This schedule form may represent an appropriate compromise particularly in those settings in which contractual constraints make full flexible

scheduling impossible or in those in which teachers are very concerned that children visit the library media center regularly.

In examining median values the median scores for the group with fixed schedules are particularly noteworthy; except for gathering materials the median score for curriculum consultation tasks is zero. This reveals that while there were some fixed-schedule respondents who frequently performed these tasks the majority in that group did not perform them at all (see table 2).

Table 2. Medians: Curriculum Consultation by Schedule Groups

Variable	Schedule		
	Fixed	Flexible	Mixed
Gather	3.0	6.0	7.5
Identify	0.0	2.0	1.0
Plan	0.0	3.0	2.0
Teach	0.0	2.0	1.0
Evaluate	0.0	1.0	1.0
N =	208	99	60

Planning. The effect of the planning culture of the school was the second area of study. Two measures of planning were examined.

The first planning variable (Expectation) was a measure of the principals expectation for teachers to plan collaboratively with the library media specialist. In the analysis of the relationship between the expectation of the principal for collaborative planning and the occurrence of the curriculum consultation tasks the principals expectation exhibited a significant difference on all five tasks (see table 3).

Table 3. ANOVA: Curriculum Consultation and Principals' Expectations for Team Planning

Variable	Principal expects team planning	Principal does not expect team planning	P-value
Gather	8.2	5.4	.0002
Identify	4.3	1.6	<.0001< />
Plan	5.5	1.9	<.0001< />
Teach	3.5	1.0	<.0001< />
Evaluate	3.5	1.3	<.0001< />
N =	125	245	

The climate for planning in a school is important in the curriculum consultation role of the library media specialist. Clearly the expectations of the principals showed a strong influence on curriculum consultation tasks because all five curriculum consultation variables measured significantly higher when principals expected team planning. Once again a professional imperative emerges: principals must be informed about appropriate expectations for the library media program and the potential advantages for improved instruction that come with these expectations.

The second planning variable (Meet) is a measure of how library media specialists characterized their planning activities with teachers (i.e. meeting with teachers in a team individually or not at all). Those who met with teachers as teams had significantly higher occurrences of all five curriculum consultation variables; those who met with teachers individually had significantly more occurrences of curriculum consultation tasks than those who did not meet with teachers at all (see table 4).

Table 4. ANOVA: Curriculum Consultation and Characterization of Planning Between Teachers and Library Media Specialists

Variable	Team	Means		P-values		
		Individually	Not at all	Team/ Individual	Team/ Not at all	Individually/ Not at all
Gather	8.4	6.7	2.2	.0369	<.0001</>	<.0001</>
Identify	5.0	2.2	0.1	<.0001</>	<.0001</>	.0012
Plan	5.9	2.8	0.2	<.0001</>	<.0001</>	<.0001</>
Teach	4.0	1.5	0.1	<.0001</>	<.0001</>	.0086
Evaluate	3.9	1.8	0.0	<.0001</>	<.0001</>	.0026
N =	90	224	59			

Team meetings with teachers are usually more formal and represent a time commitment that suggests that staff and/or principal value collaboration. These meetings may also occur in schools in which curriculum articulation across grade levels or across subject areas is highly valued. Extending that circulation to the library media program offers the opportunity for significantly more curriculum consultation between library media specialist and classroom teachers.

In those settings in which there was either flexible or mixed scheduling combined with a planning culture characterized by principals expectations for teachers and library media specialists to collaborate library media specialists identified more occurrences of the tasks in all five of the curriculum consultation areas (see table 5).

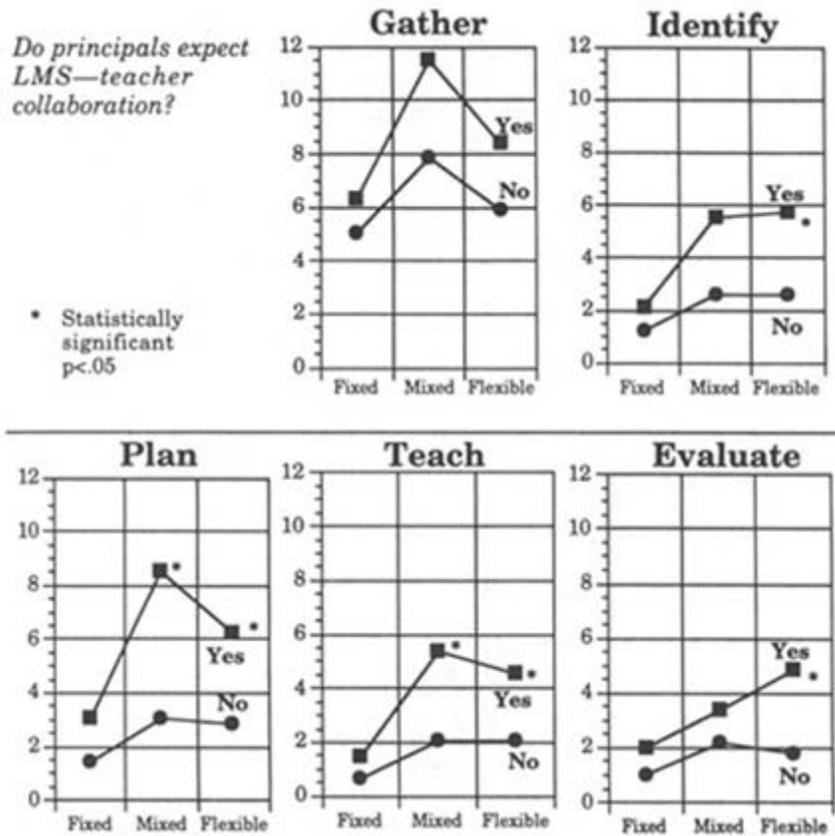
Table 5. T-tests: Flexible Scheduling Combined with Principals' Expectations for Collaboration and Teacher/Library Media Specialist Meeting Patterns

Variable	Yes	Expect		Team	Meet	
		No	P		Individually	P
Gather	8.4	5.9	*	9.5	6.0	.0201
Identify	5.8	2.6	.0036	6.4	3.1	.0068
Plan	6.2	2.8	.0026	7.1	3.3	.0027
Teach	4.5	2.1	.0149	5.2	2.4	.0177
Evaluate	4.8	1.8	.0042	5.1	2.6	.0409
N =	53	44		41	51	

*Not statistically significant

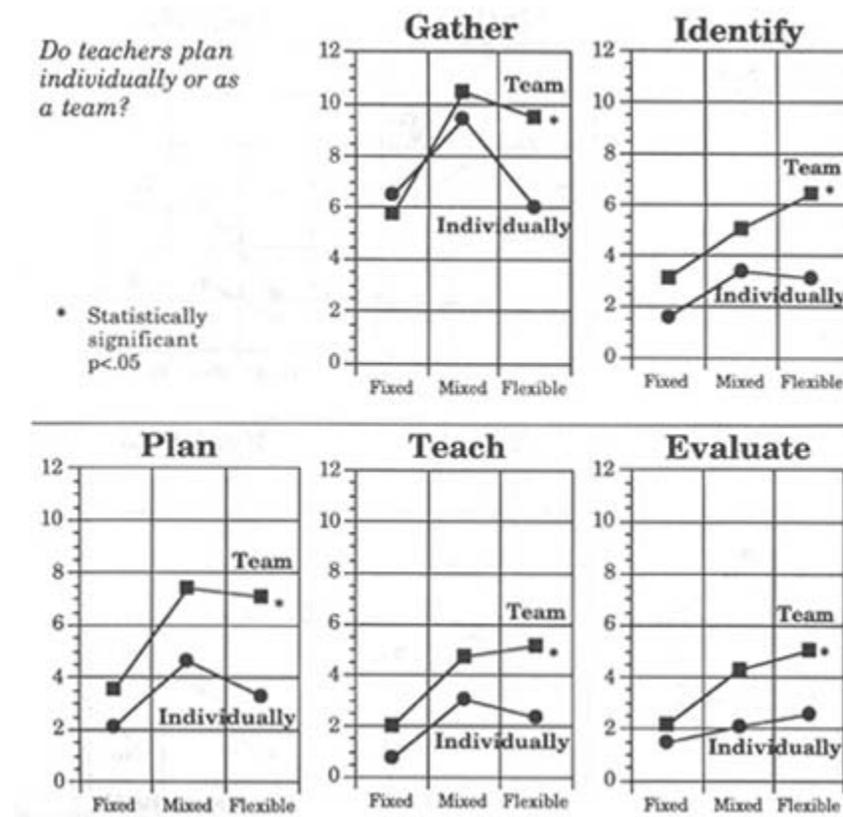
While either flexible or mixed scheduling was significantly superior to fixed scheduling for curriculum consultation combining either of those scheduling patterns with positive principal expectations increased the activity even more-and In four of the five tasks (excepting Gather) significantly more for the flexible schedule group (see table 5). A graphical representation of these data shows the impact of principals expectations for each scheduling environment (see figure 2). The *combined* effect of principals who set expectations for collaboration with the use of flexible scheduling resulted in the greatest consultation activity. The least likely situation for curriculum consultation to occur was in the combination of fixed scheduling with no principal expectations for collaboration.

Figure 2. The Number of Units for Which the Library Media Specialist Provides Consultation, Compared by Principals' Expectations for LMS and Teacher to Plan Together and Schedule Type



A second indicator of the planning culture was determined by asking whether the teacher and the library media specialist met individually or as a team (based on either grade level or subject area) or whether they did not meet at all to plan. Analysis of the data suggests that the best-case scenario was one in which there was either flexible or mixed scheduling combined with a planning culture characterized by teachers and library media specialists meeting as a team. Based on t-test results those settings with flexible scheduling and team planning *combined* exhibited significantly more occurrences of all five curriculum consultation tasks than those in which flexible scheduling and individual planning existed (see table 5). This finding was consistent with findings in the Iowa study. A graphical representation of the data reveals the impact of team planning in the flexible scheduling environment in which the difference between team and individual planning was significant for all five consultation variables (see figure 3).

Figure 3. The Number of Units for Which the Library Media Specialist Provides Consultation, Compared by Scheduling Type and Planning Configuration



The Teaching Role

The second pair of research questions related to the teaching role of the library media specialist:

1. Are more information skills lessons taught in connection with classroom units in schools with flexible scheduling as compared to schools with fixed scheduling?
2. Do library media specialists participate in assessment of student work more frequently in schools with flexible scheduling than in schools with fixed scheduling?

Information Skills Instruction. Another aspect of the library media program presumed to be favorably affected by flexible scheduling is the integration of information skills instruction into the curriculum. Library media specialists indicated whether they taught information skills in association with those classroom instructional units in which they had participated. The results from ANOVA revealed that those library media specialists with mixed scheduling taught significantly more information skills lessons in connection with classroom instructional units than those with flexible or fixed schedules (see table 6).

Table 6. ANOVA: Information Skills Instruction and Fixed, Flexible, and Mixed Schedules

Variable	Means			P-values		
	Fixed	Flexible	Mixed	Flexible/ Fixed	Mixed/ Fixed	Mixed/ Flexible
Skills	3.3	4.0	6.1	*	.0006	.0212
N =	208	99	60			

*Not statistically significant

This finding raises interesting questions about the nature of a school library media center that uses mixed scheduling. Does this mixed-schedule setting represent an adherence to some fixed scheduling in order to ensure information skills instruction or a transition from fixed to flexible scheduling?

In an examination of the median values it is noteworthy that the median score for the mixed-schedule group is the highest (four units) suggesting that the teaching of information skills is more highly valued in those settings. Still among the best group information skills were typically taught along with four classroom curriculum units during the six-week period. The question remains: is this enough?

In addition to assessing the relationship between scheduling scheme and occurrence of associated information skills instruction the researchers again analyzed the two variables related to characteristics of planning: Meet and Plan. ANOVA comparing the informational-nation skills variable (Skills) and the planning variable (Meet) revealed a significant difference between those library media specialists who meet with teachers (individually or as teams) and those who do not (see table 7).

Table 7. ANOVA: Information Skills Instruction and Characterization of Planning between Teachers and Library Media Specialists

Variable	Team	Means		P-values	
		Individually	Not at all	Individually/ Not at all	Team/ Not at all
Skills	4.4	4.2	1.8	.0035	.0053
N =	90	224	59		

Those library media specialists who reported not meeting with teachers at all showed significantly fewer occurrences of instruction in information skills that were incorporated into classroom instruction than those who met with teachers individually or as teams. Perhaps the agenda of library media specialists for the teaching of information skills cannot be put forth and integrated without meeting with teachers to plan. This finding supports the importance of some face-to-face communication between teachers and library media specialists for increased connections between information skills instruction and classroom instruction. Results from ANOVA showed that where the principal expected collaboration between teachers and library media specialists significantly more classroom units included information skills instruction (see table 8).

Table 8. ANOVA: Information Skills Instruction and Principals' Expectations for Team Planning

Variable	Means		P-value
	Principal expects team planning	Principal does not expect team planning	
Skills	4.8	3.4	.0246
N =	125	245	

These findings emphasize the importance of the library media specialists being a part of the teaching cadre in the school so that information skills instruction can be planned to meet information needs generated by classroom instruction. If such planning is not initiated by the principal or the teachers perhaps the library media specialist needs to take the initiative to make it a part of the way the school operates.

The consequences of non-participation in the instructional planning process may be a lack of integration of information skills instruction-and perhaps a lack of any information skills instruction. The importance of teaching these information skills in context however is widely accepted.

Assessment of Student Work. The second area of concern about the teaching role was whether library media specialists participate in assessing student work. For each instructional unit participants listed on the questionnaire they indicated whether they had participated in the assessment of student work. Their responses were compared based on three variables: scheduling scheme (Schedule); planning characteristics—i.e. the principals expectation for teacher/library media specialist meeting (Expectation); and the scheme for meeting with teachers—i.e. individually by teams or not meeting at all (Meet). Analysis of the data revealed that the flexible-schedule group had significantly more occurrences of student assessment than the fixed schedule group (see table 9). An examination of the median values revealed that more than half of the respondents regardless of scheduling configuration reported that they did not assess student work at all during the six-week period. This finding challenges whether these media specialists were

fulfilling the teaching role described in Information Power which considers assessment of student work an important aspect of the teaching process. Participation in student assessment by library media specialists occurred significantly more when principals held expectations for collaboration regardless of schedule (see table 10).

Table 9. ANOVA: Occurrences of Student Assessment in Fixed, Flexible and Mixed Scheduling Schemes

Variable	Means			P-values	
	Fixed	Flexible	Mixed	Flexible/ Fixed	Mixed/ Fixed
Assessment	1.1	2.4	1.6	.0041	*
N =	208	99	60		

*Not statistically significant

Table 10. ANOVA: Occurrences of Student Assessment Relative to Principal Expectations for Teacher-Media Specialist Planning

Variable	Means		P-value
	Principal expects team planning	Principal does not expect team planning	
Assessment	2.4	0.9	.0002
N =	125	245	

Library media specialists who met with teachers reported significantly more occurrences of student assessment than those who reported not meeting with teachers at all. Those who met with teaching teams reported significantly more involvement in assessment of student work than either of the other groups (see table 11). A collaborative climate is indeed conducive to increased participation in student assessment an important dimension of the teaching role. Overall however a rather small amount of student assessment was reported. Communication with teachers increased the involvement of the library media specialist in student assessment. Both planning variables showed significant differences in regard to student assessment; library media specialists who met with teaching teams identified significantly more occurrences of student assessment than those who met with teachers individually and significantly more than those who reported not meeting with teachers at all. Likewise in schools in which principals expected

collaboration between library media specialists and teachers more student assessment was reported by library media specialists.

Table 11. ANOVA: Occurrences of Student Assessment Relative to Characteristics of Planning between Teachers and Library Media Specialists

Variable	Means			P-values		
	Team	Individually	Not at all	Team/ Individually	Team/ Not at all	Individually/ Not at all
Assessment	2.6	1.4	0.2	.0067	<.0001	</> .0228
N =	90	224	59			

Conclusions

The findings of this study support:

- the employment of flexible scheduling as a component for improved curriculum consultation for and increased involvement by the library media specialist in student assessment and in schools with fixed schedules the consideration of a mixed-schedule scheme wherein some fixed and some flexible scheduling occurs for increased curriculum consultation and integration of skills;
- the importance of library media specialists planning with teachers especially with teams of teachers which may represent the best configuration for curriculum consultation and skills integration; and
- the importance of principals expectations for implementation of curriculum-involved library media programs.

Some areas for further study became evident as data were analyzed. One possible study is to determine whether those schools that use fixed schedules hold more traditional expectations for their library media programs and do not promote the consultative role for library media specialists. Fedora suggests in her qualitative study of scheduling:

The media specialists role was found to be altered significantly by the flexible schedule. No longer provided with a weekly schedule to follow the flexible schedule is directed entirely by the media specialist and teachers. With a flexible schedule the program dictates the schedule; with a *fixed* schedule the schedule controls the program.

Further qualitative research may contribute to the understanding of the environment of library media centers that use fixed schedules and determine what barriers to collaboration between library media specialists and teachers may exist. Possible factors to explore particularly in fixed-schedule environments may be expectations about the library media specialist among teachers and the library media specialists vision for library media programming.

Further qualitative research into the nature of meetings between library media specialists and teachers particularly in settings in which team planning occurs may reveal what the topics and outcomes of those meetings are and how they *guide* the work of the library media specialist. Further examination of the mixed schedule configuration might determine its features-i.e. what instruction occurs in fixed schedule classes what instruction occurs in flexible-schedule classes and how the fixed part of the schedule is configured to accommodate flexibility.

If curriculum consultation between library media specialists and teachers is indeed perceived to be relatively low a study of activities that demand priority among elementary library media specialists may be useful instead and proposals for abandonment of some activities may be helpful if the consultative role is to be advanced. This study supports the move away from fixed scheduling and underscores the value of a collaborative climate in the school. These elements appear to facilitate implementation of the teaching and consultative roles described in *Information Power*.

References and Notes

1. American Library Association and the Association for Educational Communication, *Information Power* (Chicago: ALA, 1988).
2. Jean van Deusen, "Effects of Fixed Versus Flexible Scheduling on Curriculum Involvement and Skills Integration in Elementary School Library Media Programs, *SLMQ* 21 (Spring 1993): 173-82.
3. Carol-Ann Page was consulted to review and edit the glossary for clarity and accuracy.
4. Acknowledgment of assistance with statistical analysis is given to Robert M. van Deusen, Ph.D.
5. Jean van Deusen.
6. Jean van Deusen.
7. Arabelle P. Fedora, "An Explication of the Scheduling Patterns of Two Exemplary School Library Media Centers" (Ph.D. diss., Univ. of North Carolina at Chapel Hill, 1993), 239.