

CHAPTER IV  
DATA ANALYSIS AND INTERPRETATION

Presented in this chapter are the results of the statistical analyses for the research questions outlined in Chapter I. This study sought to investigate learning-inhibiting problems in the classroom experienced by middle school teachers relative to length of teaching experience and education. Further, this study sought to investigate if selected variables, preservice education, inservice education, classroom management strategies, and methods of instructional delivery were contributing factors to the learning-inhibiting problems.

The dependent variables of the study were classroom management, as determined by classroom observations, survey item responses, and documentation by principals or assistant principals on teacher summative appraisal instrument; instructional delivery, as determined by documentation by principals or assistant principals on teacher summative appraisal instrument, and classroom observation by the researcher; and learning-inhibiting problems ( chronic talking, refusing request, tardiness, inattentiveness, and talking back inappropriately to the teacher ) as documented by classroom observations and survey responses. The independent variables of the study were years of teaching experience and levels of education. There were four levels of length of teaching experience (0-5, 6-12, 13-20, 21+ ), and two levels of education (trained and untrained). Staff development needs were determined by focus group interviews.

A one way analysis of variance (ANOVA) tested the null hypothesis that there was no statistically significant difference between years of teaching experience and education and learning-inhibiting problems in the classroom. Data were analyzed using a predetermined alpha level of .05, and the Statistical Package of Social Sciences (Norusis, 1999). Results are organized by the two independent variables and the corresponding research questions.

Findings for Education

Preservice

The percentage trained in middle school teacher preparation included 73 % of teachers with 0-5 years of experience, 57% of teachers with 6-12 years of experience, 50 % of teachers

with 13-20 years of experience, and 63 % of teachers with 21+ years of experience. The number of teachers trained in middle school teacher preparation represented 62 % of the sampled population in this study (Table 5).

Table 5

Middle School Teachers Preservice Education (Trained and Untrained)

by Length of Teaching Experience

Middle School Teacher Preparation	0-5 yrs.		6-12 yrs		13-20 yrs.		21+ yrs.		Total
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	
Teachers Trained	68	73	43	57	24	50	17	63	152
Teachers Untrained	25	27	33	43	24	50	10	37	92
Total	93	100	76	100	48	100	27	100	244

One-way analysis of variance (ANOVA) procedures were performed for selected major variables in preservice education to determine whether differences existed in the perception of learning-inhibited problems. With a predetermined alpha level of .05, there were no significant differences in preservice education (trained in middle school teacher preparation, untrained in middle school teacher preparation) and the five learning-inhibiting problems: chronic talking  $F = .001$ ,  $p = .979$ , refusing request  $F = 1.634$ ,  $p = .202$ , tardiness  $F = .225$ ,  $p = .636$ , inattentiveness  $F = .123$ ,  $p = .727$ , and talking back to teachers  $F = 1.087$ ,  $p = .298$  (Table 6).

Table 6

Summary of Analysis of Variance of Preservice Education (Trained, Untrained) and Learning Inhibiting Problems in the Classroom (chronic talking, refusing request, tardiness, inattentiveness, and talking back to teacher)

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Chronic Talking</u>					
Between Groups	5.480E-04	1	5.480E-04	.001	.979
Within Groups	189.087	237	.798		
Total	189.088	238			
<u>Refusing Request</u>					
Between Groups	.797	1	.797	1.634	.202
Within Groups	115.169	236	.488		
Total	115.966	237			
<u>Tardiness</u>					
Between Groups	.103	1	.103	.225	.636
Within Groups	108.709	237	.459		
Total	108.812	238			
<u>Inattentiveness</u>					
Between Groups	7.758E-02	1	7.758E-02	.123	.727
Within Groups	149.389	236	.633		
Total	149.466	237			
<u>Talking Back to Teachers</u>					
Between Groups	.552	1	.552	1.087	.298
Within Groups	119.280	235	.508		
Total	119.831	236			

$p = .05$

Inservice

To determine the statistically significant difference between the years of the inservice education and learning inhibiting problems experienced by middle school teachers, the respondents were asked to report the most recent year in which they received inservice education in classroom management. Of the 244 sampled population, the mean score of 3.75, median 6.00, and standard deviation 3.30 was calculated; 102 (41.8%) had never received inservice training in classroom management, 97 ( 39.8%) had received training in classroom management between 1996-99, 31 (12.7%) had received training in classroom management between 1991-95, and 14 (5.6%) had received training in classroom management prior to 1990 starting with 1965 (Figure 2).

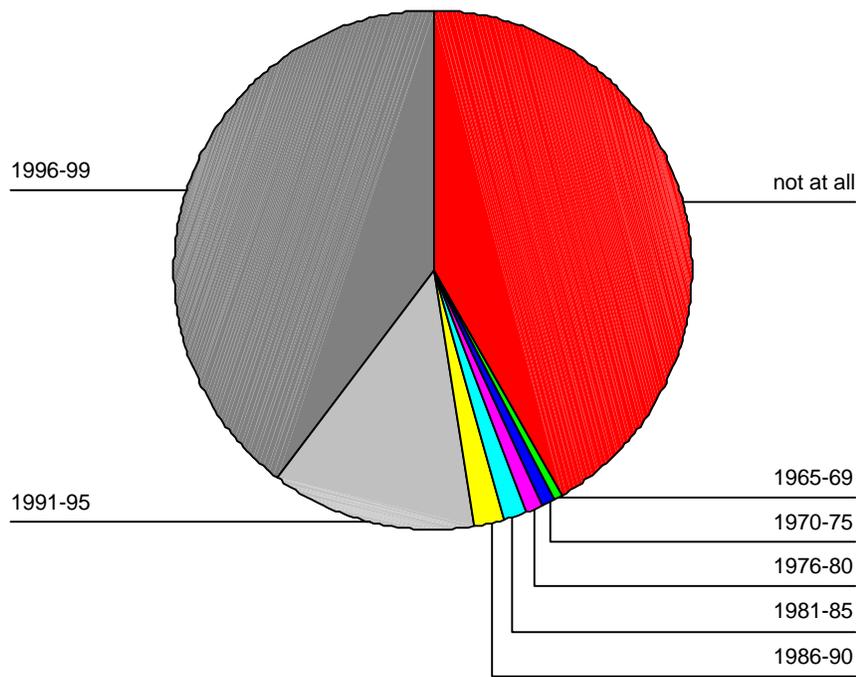


Figure 2. - Most Recent Classroom Management Inservice

**Most Recent Classroom Management Inservice**

The data were subjected to a one-way analysis of variance to determine if there was a statistically significant difference between the years of the most recent classroom management inservice and learning inhibiting problems experienced by middle school teachers. The results yielded no statistically differences among years of the most recent inservice education with respect to chronic talking  $F = .981$ ,  $p = .446$ , refusing request  $F = .541$ ,  $p = .803$ , tardiness  $F = 1.356$ ,  $p = .225$ , inattentiveness  $F = .965$ ,  $p = .458$ , and talking back to teachers  $F = .296$ ,  $p = .955$ . The results suggested that there was not a significant difference in the learning inhibiting problems experienced by middle school teachers with or without classroom management inservice education (Table 7).

Table 7

Summary of Analysis of Variance of Most Recent Classroom Management Inservice and Learning-Inhibiting Problems (chronic talking, refusing request, tardiness, inattentiveness, and talking back to teacher)

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Chronic Talking</u>					
Between Groups	5.460	7	.780	.981	.446
Within Groups	183.628	231	.795		
Total	189.088	238			
<u>Refusing Request</u>					
Between Groups	1.878	7	.268	.541	.803
Within Groups	114.088	230	.496		
Total	115.966	237			
<u>Tardiness</u>					
Between Groups	4.294	7	.613	1.356	.225
Within Groups	104.518	231	.452		
Total	108.812	238			
<u>Inattentiveness</u>					
Between Groups	4.264	7	.609	.965	.458
Within Groups	145.202	230	.631		
Total	149.466	237			
<u>Talking Back to Teachers</u>					
Between Groups	1.076	7	.154	.296	.955
Within Groups	118.756	229	.519		
Total	119.831	236			

$p = .05$

## Findings for Years of Teaching Experience

## Classroom Management

A one-way ANOVA was performed for years of teaching experience (0-5, 6-12, 13-20, 21+), and each learning-inhibiting problem using a predetermined alpha level of .05. The null hypothesis tested the relationship between years of teaching and learning-inhibiting problems experienced by middle school teachers in the classroom. The researcher failed to reject the null hypothesis that there was no statistically significant difference between years of teaching experience (0-5, 6-12, 13-20, 21+ ) and learning-inhibiting problems (chronic talking, refusing request, tardiness, inattentiveness, and talking back to teachers) experienced by middle school teachers in the classroom. See Appendix J for frequency of responses by years of teaching experience. In the 0-5 years of teaching experience ( $n = 93$ ) with a mean score of 2.61 and standard deviation of 1.39, the results yielded no significant difference in chronic talking,  $F = 1.314, p = .265$ , refusing request,  $F = .413, p = .839$ , tardiness,  $F = 1.177, p = .327$ , inattentiveness,  $F = 1.355, p = .249$ , talking back to teachers,  $F = .576, p = .718$  (Table 8).

For the 6-12 years of teaching experience (  $n=76$ ) with a mean score of 8.79 and standard deviation of 8.89, the data revealed no significant differences in chronic talking,  $F = .634, p = .726$ , refusing request,  $F = .150, p = .993$ , tardiness,  $F = 1.070, p = .393$ , inattentiveness,  $F = .710, p = .664$  , talking back to teachers,  $F = .659, p = .706$  (Table 9).

The 13-20 years of teaching experience ( $n = 48$ ), mean score of 15.38 and standard deviation of 2.26, yielded no significant difference in chronic talking,  $F=1.599, p = .165$ , refusing request,  $F = .816, p = .580$ , tardiness,  $F = .729, p = .649$ , inattentiveness,  $F = .479, p = .844$ , and talking back to teachers,  $F = .838, p = .562$  (Table 10).

Table 8

Summary of Analysis of Variance by 0-5 Years of Teaching Experience and Learning-Inhibiting Problems (chronic talking, refusing request, tardiness, inattentiveness, and talking back to teacher)

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Chronic Talking</u>					
Between Groups	5.079	5	1.016	1.314	.265
Within Groups	67.244	87	.773		
Total	72.323	92			
<u>Refusing Request</u>					
Between Groups	1.124	5	.225	.413	.839
Within Groups	47.349	87	.544		
Total	48.473	92			
<u>Tardiness</u>					
Between Groups	3.345	5	.669	1.177	.327
Within Groups	49.451	87	.568		
Total	52.796	92			
<u>Inattentiveness</u>					
Between Groups	4.247	5	.849	1.355	.249
Within Groups	54.549	87	.627		
Total	58.796	92			
<u>Talking Back to Teachers</u>					
Between Groups	1.792	5	.358	.576	.718
Within Groups	52.889	85	.622		
Total	54.681	90			

$p = .05$

Table 9

Summary of Analysis of Variance by 6-12 Years of Teaching Experience and Learning Inhibiting Problems (chronic talking, refusing request, tardiness, inattentiveness, and talking back to teacher)

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Chronic Talking</u>					
Between Groups	3.514	7	.502	.634	.726
Within Groups	51.445	65	.791		
Total	54.959	72			
<u>Refusing Request</u>					
Between Groups	.430	7	6.145E-02	.150	.993
Within Groups	26.693	65	.411		
Total	27.123	72			
<u>Tardiness</u>					
Between Groups	3.177	7	.454	1.070	.393
Within Groups	27.563	65	.424		
Total	30.740	72			
<u>Inattentiveness</u>					
Between Groups	3.255	7	.465	.710	.664
Within Groups	42.580	65	.655		
Total	45.836	72			
<u>Talking Back to Teachers</u>					
Between Groups	1.575	7	.225	.659	.706
Within Groups	22.206	65	.342		
Total	23.781	72			

$p = .05$

Table 10

Summary of Analysis of Variance by 13-20 Years of Teaching Experience and Learning-Inhibiting Problems (chronic talking, refusing request, tardiness, inattentiveness, and talking back to teacher)

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Chronic Talking</u>					
Between Groups	9.203	7	1.315	1.599	.165
Within Groups	32.074	39	.822		
Total	41.277	46			
<u>Refusing Request</u>					
Between Groups	3.034	7	.433	.816	.580
Within Groups	20.183	38	.531		
Total	23.217	45			
<u>Tardiness</u>					
Between Groups	1.718	7	.245	.729	.649
Within Groups	13.133	39	.337		
Total	14.851	46			
<u>Inattentiveness</u>					
Between Groups	2.378	7	.340	.479	.844
Within Groups	26.948	38	.709		
Total	29.326	45			
<u>Talking Back to Teachers</u>					
Between Groups	3.301	7	.472	.838	.562
Within Groups	21.933	39	.562		
Total	25.234	46			

$p = .05$

Middle school teachers with 21+ years of teaching experience ( $n = 27$ ), mean score of 26.26 and standard deviation 3.49, yielded no statistically significant difference in chronic talking,  $F = 1.358$ ,  $p = .284$ , refusing request,  $F = 1.436$ ,  $p = .253$ , tardiness,  $F = 1.485$ ,  $p = .235$ , inattentiveness,  $F = .926$ ,  $p = .528$ , and talking back to teachers,  $F = .521$ ,  $p = .839$  (Table 11).

Across all years of teaching experience, the researcher failed to reject the null hypothesis that there was no statistically significant difference between the learning-inhibiting problems (chronic talking, refusing request, tardiness, inattentiveness, talking back to teachers) experienced by middle school teachers.

Teachers within all levels tended to experience the same degree of learning-inhibiting problems in the classroom

Table 11

Summary of Analysis of Variance by 21+ Years of Teaching Experience and Learning-Inhibiting Problems (chronic talking , refusing request, tardiness, inattentiveness, and talking back to teacher)

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Chronic Talking</u>					
Between Groups	7.995	9	.888	1.358	.284
Within Groups	10.467	16	.654		
Total	18.462	25			
<u>Refusing Request</u>					
Between Groups	7.578	9	.842	1.436	.253
Within Groups	9.383	16	.586		
Total	16.961	25			
<u>Tardiness</u>					
Between Groups	4.621	9	.513	1.485	.235
Within Groups	5.533	16	.346		
Total	10.154	25			
<u>Inattentiveness</u>					
Between Groups	4.967	9	.552	.926	.528
Within Groups	9.533	16	.596		
Total	14.500	25			
<u>Talking Back to Teachers</u>					
Between Groups	3.321	9	.369	.521	.839
Within Groups	11.333	16	.708		
Total	14.654	25			

$p = .05$

Of the 244 sampled population, 46 middle school teachers were formally evaluated by the building administrator using the Summative Appraisal Instrument (Appendix G). There were four groups: 0-5 years of experience ( $n = 24$ ), 6-12 years of experience ( $n = 14$ ), 13-20 years of experience ( $n = 5$ ), and 21+ years of experience ( $n = 3$ ).

With a mean score of 4.11 (proficient) and standard deviation of .80, the data were subjected to a one way ANOVA to determine the statistically significant difference between years of teaching and the ability to manage a classroom as perceived by the building administrator. The researcher failed to reject the null hypothesis that there was no statistically significant difference between the years of teaching experience, 0-5 years of experience:  $F = .547$ ,  $p = .739$ , 6-12 years of experience:  $F = .740$ ,  $p = .635$  ( See Table 12). The groups of 13-20 years of experience and 21+ years of experience failed to have the minimum number of cases to calculate the data. The results of the summative evaluation indicated that, upon observation of the sampled population, administrators found teachers with all levels of experience to be proficient in classroom management.

Table 12

Summary of Analysis of Variance by Years of Teaching Experience (0-5, 6-12) and the Ability to Manage a Classroom as Perceived by the Building Administrator

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>0-5 Years of Teaching Experience</u>					
Between Groups	1.401	5	.280	.547	.739
Within Groups	9.224	18	.512		
Total	10.625	23			
<u>6-12 Years of Teaching Experience</u>					
Between Groups	4.548	6	.758	.740	.635
Within Groups	7.167	7	1.024		
Total	11.714	13			

$p = .05$

0-5 Years of Teaching ( $n = 24$ )

6-12 Years of Teaching Experience ( $n = 14$ )

The researcher conducted six classroom observations to explore the behaviors of the students and the behaviors of the teacher in the classroom to determine the ability of the teacher to manage the classroom. The behaviors were observed in six sweeps of the classroom in five-minute intervals. Each sweep was recorded on the behavior matrix (Appendix H). Teacher behavior included directing instruction, managing student behavior, instructors' location (seated, circulating), questioning lesson, directed instruction, and ignoring the problem. Student behavior included on-task behavior, inattentiveness (head on desk, personal needs, stalling and waiting) and talking inappropriately in class.

The data were collapsed using a number value for each behavior observed to obtain a mean score and standard deviation. In the 0-5 years of teaching experience: student behavior  $\underline{M}$  = 1.65 "on-task behavior",  $\underline{SD}$  = .75; teacher behavior:  $\underline{M}$  = 2.92 "directing instruction",  $\underline{SD}$  = 1.50; 6-12 years of teaching experience: student behavior  $\underline{M}$  = 1.17 "inattentiveness",  $\underline{SD}$  = .38; teacher behavior:  $\underline{M}$  = 2.24 "directed instruction",  $\underline{SD}$  = 1.75; 13-20 years of teaching experience: student behavior:  $\underline{M}$  = 1.32 "inattentiveness",  $\underline{SD}$  = .48; teacher behavior:  $\underline{M}$  = 4.39 "ignoring problem", "seated",  $\underline{SD}$  = 2.50; 21 + years of teaching experience: student behavior  $\underline{M}$  = 3.00 "on-task",  $\underline{SD}$  = .00; teacher behavior:  $\underline{M}$  = 3.00 "directing instruction", "circulating",  $\underline{SD}$  = 1.66. See Appendix K for classroom observation frequency of responses.

The data were subjected to a one way ANOVA which showed no statistically significant difference between years of teaching experience and the ability to manage the classroom as perceived by the researcher. Zero to five years of experience: student behavior  $\underline{F}$  = 1.085,  $\underline{p}$  = .419, teacher behavior  $\underline{F}$  = 1.719,  $\underline{p}$  = .229 ; 13-20 years of teaching experience: student behavior  $\underline{F}$  = .333,  $\underline{p}$  = .667, teacher behavior  $\underline{F}$  = .333,  $\underline{p}$  = .667 (See Table 13). There was a lack of frequency distribution of responses in 6-12 years of teaching experience and 21+ years of teaching experience to calculate a test for statistically significant differences.

Table 13

Summary of Analysis of Variance by Classroom Observation of Ability to Manage a Classroom (student behavior, teacher behavior ) by Years of Teaching Experience (0-5, 13-20) as Perceived by the Researcher

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>0-5 Years of Teaching Experience</u>					
<u>Student Behavior</u>					
Between Groups	2.348	4	.587	1.085	.419
Within Groups	4.867	9	.541		
Total	7.214	13			
<u>Teacher Behavior</u>					
Between Groups	14.262	4	3.565	1.719	.229
Within Groups	18.667	9	2.074		
Total	32.929	13			
<u>13-20 Years of Teaching Experience</u>					
<u>Student Behavior</u>					
Between Groups	.167	1	.167	.333	.667
Within Groups	.500	1	.500		
Total	.667	2			
<u>Teacher Behavior</u>					
Between Groups	6.000	1	6.000	.333	.667
Within Groups	18.000	1	18.000		
Total	24.000	2			

\* $p = .05$

Instructional Delivery

The 244 subjects in the sampled population indicated when disruptive behavior occurred most in the classroom. The respondents provided multiple answers. Inferential statistics were not computed for years of teaching experience and occurrence of problems in the middle school classroom. Descriptive statistics utilizing cross tabulation revealed that 57% ( $n = 140$ ) of disruptions occurred “before class”. The subjects in the 0-5 years of teaching experience showed the greatest percentile (21.3%) of the distribution. The data also revealed that the frequency of disruptions occurred the most in the first 12 years of teaching (See Table 14).

Table 14

Frequency of Occurrence of Disruptions in the Classroom by Years of Teaching Experience (0-5, 6-12, 13-20, 21+)

Years of Experience	Before Class Admin. Time		Dismissal		Instructions			
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
0-5 years	52	21.3	19	7.8	26	10.7	28	11.5
6-12 years	46	18.9	14	5.7	16	6.6	24	9.8
13-20 years	25	10.2	9	3.7	14	5.7	16	6.6
21+ years	17	7.0	3	1.2	6	2.5	7	2.9
Total	140	57.4	45	18.4	62	25.5	75	30.6

The researcher failed to reject the null hypothesis that there was no statistically significant difference between 0-5 years of teaching experience and frequency of non-instructional strategies used to prevent disruptions in the classroom ( ignoring the problem,  $F = 1.518$ ,  $p = .194$ , conference with student,  $F = .715$ ,  $p = .614$ , after-school detention,  $F = .351$ ,  $p = .880$ ) used to prevent disruptive behaviors in the classroom. Type I error levels are not guaranteed. The researcher rejected the null hypothesis that there was no statistically significant difference between zero to five years of teaching experience and consulting with an administrator as a non-instructional strategy for preventing disruptions in the classroom,  $F = 3.094$ ,  $p = .013 < .05$ . Type II error levels are not guaranteed. The participants in the category of 0-5 years of teaching experience preferred consulting with an administrator as a non-instructional strategy for preventing disruptions in the classroom. See Table 15.

Table 15

Summary of Analysis of Variance by 0 - 5 Years of Teaching Experience and the Frequency of Non- Instructional Strategies Used to Prevent Disruptive Behaviors in the Classroom (ignore the problem, conference with student, after school detention, and consultation with administrator)

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Ignore the Problem</u>					
Between Groups	3.278	5	.656	1.518	.194
Within Groups	34.997	81	.432		
Total	38.276	86			
<u>Conference with Student</u>					
Between Groups	1.809	5	.362	.715	.614
Within Groups	44.019	87	.506		
Total	45.828	92			
<u>After School Detention</u>					
Between Groups	1.212	5	.242	.351	.880
Within Groups	57.943	84	.690		
Total	59.156	89			
<u>Consultation with Administrator</u>					
Between Groups	7.079	5	1.416	3.094	.013*
Within Groups	36.145	79	.458		
Total	43.224	84			

\* $p = .05$

There was no statistically significant difference between 6-12 years of teaching experience and the frequency of non-instructional strategies (ignore problem,  $F = .187$ ,  $p = .987$ , conference with student,  $F = .788$ ,  $p = .600$ , after-school detention,  $F = 1.456$ ,  $p = .200$  and consultation with administrator,  $F = .666$ ,  $p = .700$ ) used to prevent disruptions in the classroom. See Table 16.

There was no statistically significant difference between 13-20 years of teaching experience and the frequency of non-instructional strategies (ignore the problem,  $F = .376$ ,  $p = .911$ , conference with student,  $F = .466$ ,  $p = .853$ , after school detention,  $F = 1.260$ ,  $p = .295$ , consultation with administrator,  $F = 1.310$ ,  $p = .274$ ) used to prevent disruptions in the classroom. See Table 17.

There was no statistically significant difference 21+ years of teaching experience and the frequency of non-instructional strategies (ignore the problem,  $F = 1.044$ ,  $p = .452$ , conference with student,  $F = .347$ ,  $p = .944$ , after school detention,  $F = .419$ ,  $p = .905$ , consultation with administrator,  $F = .817$ ,  $p = .610$ ) used to prevent disruptions in the classroom. See Table 18.

Table 16

Summary of Analysis of Variance by 6-12 Years of Teaching Experience Frequency of Non-Instructional Strategies (ignore the problem, conference with student, after school detention, consultation with administrator) Used to Prevent Disruptive Behaviors in the Classroom

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Ignore the Problem</u>					
Between Groups	.871	7	.124	.187	.987
Within Groups	39.997	60	.667		
Total	40.868	67			
<u>Conference with Student</u>					
Between Groups	2.745	7	.392	.788	.600
Within Groups	31.866	64	.498		
Total	34.611	71			
<u>After School Detention</u>					
Between Groups	5.502	7	.786	1.456	.200
Within Groups	32.933	61	.540		
Total	38.435	68			
<u>Consultation with Administrator</u>					
Between Groups	2.058	7	.294	.666	.700
Within Groups	26.472	60	.441		
Total	28.529	67			

\* $p = .05$

Table 17

Summary of Analysis of Variance by 13-20 Years of Teaching Experience and Frequency of Non-Instructional Strategies (ignore the problem, conference with student, after school detention, consultation with administrator) Used to Prevent Disruptive Behaviors in the Classroom

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Ignore the Problem</u>					
Between Groups	1.683	7	.240	.376	.911
Within Groups	24.317	38	.640		
Total	26.000	45			
<u>Conference with Student</u>					
Between Groups	1.748	7	.250	.466	.853
Within Groups	20.890	39	.536		
Total	22.638	46			
<u>After School Detention</u>					
Between Groups	5.854	7	.836	1.260	.295
Within Groups	25.890	39	.664		
Total	31.745	46			
<u>Consultation with Administrator</u>					
Between Groups	4.517	7	.645	1.310	.274
Within Groups	17.733	36	.493		
Total	22.250	43			

\* $p = .05$

Table 18

Summary of Analysis of Variance by 21+ Years of Teaching Experience and Frequency of Non-Instructional Strategies Used to Prevent Disruptive Behaviors in the Classroom

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Ignore the Problem</u>					
Between Groups	2.557	9	.284	1.044	.452
Within Groups	4.083	15	.272		
Total	6.640	24			
<u>Conference with Student</u>					
Between Groups	2.577	9	.286	.347	.944
Within Groups	12.383	15	.826		
Total	14.960	24			
<u>After School Detention</u>					
Between Groups	2.443	9	.271	.419	.905
Within Groups	9.717	15	.648		
Total	12.160	24			
<u>Consultation with Administrator</u>					
Between Groups	3.617	9	.402	.817	.610
Within Groups	6.883	14	.492		
Total	10.500	23			

\* $p = .05$

Frequency distribution of survey responses revealed that “conference with students ( $M = 3.10$ ,  $S.D. = 3.0$ ) and “after school detention” ( $M = 2.51$ ,  $S.D. = 2.51$ ) were the most frequently used non-instructional strategies in the first 12 years of teaching. “Ignoring the problem” ( $M = 1.92$ ,  $S.D. = .71$ ) and consultation with administrator ( $M = 2.23$ ,  $S.D. = .69$ ) were the next most frequently used non-instructional strategies. Respondents in the 0-5 group of years of experience and the 6-12 group of years of experience used the non-instructional strategy, “after school detention” (65%) and conference with students (67%) more frequently than respondents with more than 12 years of teaching experience (Table 19).

Table 19

Frequency of Non-Instructional Strategies Used to Prevent Learning Inhibiting Problems (ignore the problem, conference with student, after-school detention, and consultation with administrator) in the Classroom by Years of Experience (0-5, 6-12,13-20, 21+)

Years of Exp.	Ignore the Problem		Conf. with student		Detention		Consult with Admin	
	<u>N</u>	<u>% N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	
0-5 years	87	35.7	93	38.1	90	36.9	85	34.8
6-12 years	68	27.9	72	29.5	69	28.3	68	27.9
13-20 years	46	18.9	47	19.3	47	19.3	44	18.0
21 + years	25	10.2	25	10.2	25	10.2	24	9.8
Total	226	92.7	237	97.1	231	94.7	221	90.5

The eight administrators in the sampled population evaluated 44 subjects in planning and delivery of instruction from the sampled population of 244 middle school teachers. This number was selected because, in the participating school district, teachers who are employed less than three years are evaluated annually while other teachers are evaluated every three years. This constituted a small number in the group to be evaluated. The number of teachers evaluated in each group included: 0-5 years of teaching experience ( N = 23, 90.6% ), 6-12 years of teaching experience ( N = 14, 5.7% ), 13-20 years of teaching experience ( N = 5, 2.0% ), 21 + years of teaching experience ( N = 2, .8%). The measure of central tendency showed M = 4.02 “proficient”, S.D. = .79. Results of the one-way ANOVA revealed no statistically significant difference between years of teaching experience and the ability to deliver instruction as perceived by the building administrator on the summative teacher appraisal instrument. See Table 20.

Table 20

Summary of Analysis of Variance by Years of Teaching Experience (0-5, 6-12) and the Ability to Deliver Instruction as Perceived by the Building Administrator on the Summative Teacher Appraisal Instrument

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>0-5 Years of Teaching Experience</u>					
Between Groups	4.575	5	.915	1.936	.141
Within Groups	8.033	17	.473		
Total	12.609	22			
<u>6-12 Years of Teaching Experience</u>					
Between Groups	3.095	6	.516	.619	.712
Within Groups	5.833	7	.833		
Total	8.929	13			

$p = .05$

0-5 Years of Teaching ( $n = 23$ )

6-12 Years of Teaching Experience ( $n = 14$ )

When planning for instruction ( $M = 4.02$ ,  $S.D. = .88$ ), there was no statistically significant difference between years of teaching experience and the ability to plan instruction as perceived by the building administrator (0-5 years of experience,  $n = 23$ ,  $F = 1.559$ ,  $p = .222$ , 6-12 years of experience,  $n = 14$ ,  $F = 1.308$ ,  $p = .376$ , 13-20 years of experience,  $n = 5$ , 21+ years of experience,  $n = 2$ ).

Table 21

Summary of Analysis of Variance by Years of Teaching Experience (0-5, 6-12) and the Ability to Plan Instruction as Perceived by the Building Administrator on the Summative Teacher Appraisal Instrument

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>0-5 Years of Teaching Experience</u>					
Between Groups	4.633	5	.927	1.559	.222
Within Groups	10.700	18	.594		
Total	15.333	23			
<u>6-12 Years of Teaching Experience</u>					
Between Groups	4.359	6	.726	1.308	.376
Within Groups	3.333	6	.556		
Total	7.692	12			

$p = .05$

0-5 Years of Teaching ( $n = 23$ )

6-12 Years of Teaching Experience ( $n = 14$ )

13-20 Years of Teaching Experience ( $n = 5$ )

21+ Years of Teaching Experience ( $n = 2$ )

There was no statistically significant difference between years of teaching experience and instructional strategies used to prevent disruptions in the classroom. The 244 subjects in the sampled population used multiple instructional strategies to prevent disruptions in the classroom. The distribution of responses revealed that 95% of respondents indicated that the establishment of rules occurred at the beginning of the school year. Eighty-one percent of respondents indicated that instruction was planned to avoid disruptive behavior. See table 22.

Table 22

Instructional Strategies (rules established at beginning of the year, instruction planned to avoid disruption, behavior unavoidable) to Prevent Disruptive Behavior by Years of Teaching (0-5, 6-12, 13-20, 21 +) Experience

Yrs. of Teaching Exp.	<u>N</u>	Instructional Strategies					
		Rules		Instruction Planned		Behavior Unavoided	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
0-5 Years	93	90	97	80	86	24	26
6-12 Years	76	72	95	59	78	21	27
13-20 Years	48	46	96	38	79	13	27
21+Years	27	24	89	21	78	7	26

Rules = Rules established at the beginning of the school year.

Instruction planned = Instruction planned to avoid disruption.

Behavior Unavoided = Disruptive behavior cannot be avoided.

Overall, there was no statistically significant difference between years of teaching experience and education and learning-inhibiting problems experienced by middle school teachers in the classroom. There was a statistically significant difference between the least experienced group, zero to five years of teaching experience, and the non-instructional strategy (consultation with administrator) to prevent disruptions in the classroom.

#### Focus Group Results

Using the nominal group technique (Van de Ven, 1974), a group of 6 middle school teachers with length of teaching experience (0-5 years, 6-12 years, 13-20 years, 21+ years) processed the nominal question: “Chronic talking, tardiness, and inattentiveness have been identified as the most frequent learning-inhibiting problems experienced by middle school teachers. What are the specific implications for staff development?” The nominal group technique allowed the members to openly discuss concerns in the classroom while maintaining confidentiality

among the participants in the group. There were two consensus items that emerged from the group members: (1) chronic talking, tardiness, and inattentiveness are integral parts of classroom management, but problems can be prevented through differentiation of instructional strategies in the classroom and (2) all of the group members felt that the existing inservice education in their building was a waste of time because it did not address the needs of teachers in terms of specific discipline challenges experienced in the classroom. Each of the six participants were given 3 x 5 cards to record their priority responses for staff development. There were 16 responses. The number for each topic correspond to the round-robin listing for each participant. Five was recorded as the most important response, and one was recorded as the least important response. The individual rating column illustrates the rank-order score for each individual participant. The researcher rank-ordered the sum of the rating column by adding the individual ratings for each topic. See Table 23.

Table 23

Suggested Staff Development Topics

Staff Development Topic	Individual Rating	Sum of Ratings
1. Teachers: Sharing instructional strategies that work.	2, 1	3
2. Strategies on how to allow time for students to talk without being disruptive.	5	5
3. Developing positive attitudes toward teaching	5, 1	6
4. Effective teacher movement in the classroom	4	4
5. Instructional strategies for teachers of students in an inclusion model	3,1	4
6. How to work in a co-teaching environment	4	4
7. Strategies on how to and when to communicate to parents: Building a positive relationship with parents	4, 3,1	8*
8. How to write effective lesson plans	5	5
9. Establishing procedures for communicating high expectations of students socially and academically	3, 2	5
10. Teaching the cluster concept: How to team with teachers to work with students.	5, 4	9*
11. Pride and Respect (P & R): Teaching the whole child	5, 2	7
12. How to use Standards of Learning (SOL) and creativity when motivating students and bringing relevance in teaching - using technology in teaching	5, 4, 4, 2, 1	16*
13. Establishing administrative support for teachers Developing positive relationships with Dean of student and classroom teachers.	3, 3, 3	9*
14. Making classroom environments attractive and inviting for students	3	3
15. Bringing community partnerships to schools	1	1
16. Sharing instructional strategies with classroom teachers in other schools	2	2

\* most important topic

The data suggest that there were many topics that could be addressed. However, the most important staff development topic for all teachers involved training in a variety of instructional strategies and planning that incorporate technology, and creativity to enhance motivation of students and relevance in teaching to the Standards of Learning objectives. These standards are mandated by the State of Virginia. The other topics of importance included teaching the cluster concept, developing positive relationships with administrators, classroom teachers, and students, and learning strategies on how to communicate to parents: building a positive relationship.