

**TEACHER ATTITUDES TOWARD THE
HENRICO COUNTY PUBLIC SCHOOLS PROFESSIONAL GROWTH
PLAN FOR LICENSED PROFESSIONAL PERSONNEL**

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(ABSTRACT)

Experts have suggested that the primary purposes of teacher evaluation systems are to promote the professional development of teachers and to provide information on their strengths and weaknesses so that appropriate training might be planned. It is important for teachers to have ownership in such planning and to be provided options for their professional development. The primary focus of this study is a professional growth plan which includes options that are designed to provide opportunities for teachers' continuous growth; assist teachers with instructional planning; empower teachers to be responsible for analyzing their performance; and empower teachers to facilitate learning for themselves.

The purpose of this study is to examine the differences in the views of teachers under the four different options of the Henrico County Professional Growth Plan (structured, individual, collegial, and peer observation). A survey was the primary instrument for data collection. The sample for this study consisted of

58 schools (39 elementary schools, 9 middle schools, and 10 high schools). For each of the primary options, a proportionate sample of teachers was drawn from each level, i.e., elementary (kindergarten through grade five), middle (grades six through eight), and secondary (grades nine through twelve), with the sample proportion being equal to the proportion of the total group. From this group, teachers were randomly selected for participation. The actual sample consisted of 574 teachers who returned the completed survey instrument used in the analyses. This number represented a response rate of 80.6 percent.

Major findings revealed that teachers on the collegial and structured growth options indicated the greatest satisfaction with regard to continuous growth. With regard to instructional planning, an important factor to be considered in the professional development of teachers, elementary teachers who participated in the collegial option indicated the greatest satisfaction. Specific staff development activities offered by the school division were viewed as creating the greatest satisfaction among the many professional growth factors examined. These factors, developed through exploratory factor analysis process, included satisfaction with opportunities for growth in instructional planning, the role of and interaction with the principal, commitment to the profession, increase in knowledge base, peer support and interaction, and educational conferences. Other findings indicated that teachers valued the advice from and work with their peers and principal as a form of

professional development more than other factors. Teachers who participated in the collegial and structured options, in particular, responded positively in this regard. On the whole, elementary teachers expressed higher satisfaction with professional development activities as related to their professional growth plans than did middle or high school teachers, regardless of the plan option with which they were associated.

Although a major objective of the professional growth plan was to empower teachers to facilitate their own learning, teachers indicated less satisfaction with this factor than with other factors examined. Teachers, in general, did indicate that they were empowered to analyze their own performance, with teachers participating in the structured option indicating the greatest satisfaction with opportunities to analyze their performance.

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CHAPTER I

Introduction

Development of the Problem

The structure of teacher evaluation systems and the knowledge and skills of those who implement them are critical variables in creating growth oriented school environments (Saphier, 1993). For this reason, it is important for school districts to implement evaluation systems that support the professional growth and development of teachers. Duke (1993) defines professional growth as the learning that leads beyond minimum or basic competence to new levels of understanding and mastery, a fresh sense of professional purpose and capabilities, or a more sophisticated awareness of the context in which one works.

Teacher evaluation systems are frequently influenced by external factors including opinions of the public and school administrators, which may not necessarily enhance opportunities for professional development. Growth oriented evaluation systems which include options for professional development and allow teacher input are quite different from traditional evaluation programs. This study examines one growth oriented evaluation system recently developed in the Henrico County Public Schools. The Henrico County Professional Growth Plan (HCPGP) is designed to promote professional development of teachers by involving them in major decisions and to provide information on strengths and weaknesses to plan for ongoing training. The purpose of this study is to analyze the differences in views of teachers under the four different options of the HCPGP.

Personnel evaluations are systematic assessments of a person's performance and/or qualifications in relation to a professional role and some specified and institutional purpose (Stufflebeam, 1988). If school districts value professional growth, implementing effective evaluation systems is one means of supporting the professional growth of teachers. According to Saphier (1993, p.18), "A good evaluation system embodies a clear position about what the district thinks is important in a teacher's performance, that is, what the district values and expects a person to do in teachers' multiple roles."

A review of the literature indicates that professional development of teachers is a part of the rationale for evaluation systems. Stiggins and Duke (1988) suggest that a primary purpose of evaluation systems is to promote the professional development of teachers and to provide information on teachers' strengths and weaknesses in order to plan for appropriate training. Additionally, they suggest that evaluations provide information for use in making personnel management decisions, such as dismissal, promotion, and salary increases. Educational Research Services (1988) adds that evaluations identify strengths and weaknesses so that appropriate reinforcement can take place.

During the 1980s, the public increased its demand for greater accountability in education while simultaneously increasing its expectations for improved public schools at the national, state, and local levels. This call for accountability provided additional rationale for examining teacher evaluation practices. Duke (1993) indicates that the desire to ensure that

students are served by competent teachers led reformers to reconsider a variety of issues in education, including teacher preparation and certification, staff development, recruitment, employment practices, compensation, supervision practices, and personnel evaluation.

On a national level, the accountability issue was further strengthened by a 1983 publication from the National Commission on Excellence in Education entitled, A Nation at Risk: The Imperative for Educational Reform. This document included the following recommendation:

Persons preparing to teach should be required to meet high educational standards, to demonstrate an aptitude for teaching, and to demonstrate competence in an academic discipline. Salaries for the teaching profession should be competitive, market-sensitive, and performance based. Salary, promotion, tenure, and retention decisions should be tied to an effective evaluation system that includes peer review so that superior teachers can be rewarded, average ones encouraged, and poor ones either improved or terminated. (p. 30)

The idea of empowering teachers to make decisions about their own professional growth is evident in teacher evaluation systems that focus on professional development that is based on individual goals, thereby permitting competent teachers to grow in meaningful ways (Duke, 1993).

According to The American Heritage Dictionary, the term empower means to invest with legal power, to authorize. Teacher empowerment, therefore, implies that teachers have the authority or power to make decisions in

education. Specifically, teacher empowerment commonly refers to teachers' authority or power to make decisions regarding their professional development. Professional development, as defined by Duke and Stiggins (1990), is a process or processes by which competent teachers achieve high levels of professional competence and expand their understanding of self, role, context, and career.

Traditional teacher evaluation instruments used in the United States incorporate a process of ranking and rating employees which is based on observations by administrators or other personnel in leadership positions. Observers use these instruments to rank teachers by performance in specific categories, usually identified in their job descriptions, or according to an instructional model approved by the school board. One example of such a traditional teacher evaluation model was used in Danville, Virginia from the early 1980s through 1993. Descriptors developed for each of the practices were derived from literature on effective teaching. The following is an example of a practice or objective, accompanied by information to assist in distinguishing among the categories of outstanding (O), professionally competent (P), needs improvement (I), and unsatisfactory (U), for that

particular practice/objective:

Provides Immediate and Frequent Feedback to Students in Simple Clear Language. Feedback refers to verbal behavior that assists students in learning. Teachers may give feedback by narrowing the focus of student attention through cuing, promoting, or giving hints; informing students that answers are wrong and giving substantive information; and using questions that assist students in discovering and correcting errors and inaccuracies.

O= The teacher gives feedback in a timely and effective way. Student responses are used to probe and expand ideas and concepts. Questions are used as a feedback technique along with cues, prompts, and hints. The teacher gives feedback so that learning takes place at a higher cognitive level.

P= The teacher gives feedback so that the correctness of student responses is not in doubt. The teacher asks questions and gives examples that assist students in the learning process. The teacher is consistent in providing feedback to students.

I= The teacher is inconsistent in providing feedback to students. Feedback is overly general, little, and too late.

U= Feedback is ineffective and unclear. Students are not informed about the correctness of their responses.

After completing the observation and ranking of each of the established practices or objectives, the administrator usually shares the completed observations with the teacher in a conference and makes recommendations and commendations. (Brandt, 1990)

Currently used ranking and rating systems commonly employed by many public schools also were prevalent as early as the 1800s according to Arthur Blumberg (1985). The use of traditional or conventional rating systems provides specific information regarding teacher evaluation. Duke (1993) describes such teacher evaluation systems as consisting of a set of performance standards and a series of categories by which those standards can be checked, i.e., checklists.. Some checklists employ a binary system--satisfactory or unsatisfactory--while others provide more differentiation through use of scales, e.g., excellent, satisfactory, needs improvement, and unsatisfactory.

Studies of traditional teacher evaluation plans have identified some inherent weaknesses. Daniel Stufflebeam (1988) and his Committee on Standards for Educational Evaluation completed studies that indicated that the primary criticisms of personnel evaluation practices are that they fail to:

- (1) screen out unqualified persons;
- (2) provide constructive feedback to individual educators;
- (3) recognize and help reinforce outstanding service;
- (4) provide direction for staff development programs;
- (5) provide evidence that will withstand professional and judicial scrutiny;
- (6) provide evidence

efficiently and at reasonable cost; (7) aid institutions in terminating incompetent or unproductive personnel; and (8) unify, rather than divide, teachers and administration in their collective efforts to educate students.

The need for new methods of teacher evaluation is amplified by the fact that traditional teacher evaluations have been judged ineffective by researchers. As stated by Levine, “. . . research provides little support of current practices in teacher evaluation. One of the few things that can be safely said is that the prevalent system of evaluation for the purpose of hiring or promoting through observations by supervisors is biased and subjective” (p. 244). Duke (1993) added, “If there is a less meaningful ritual for the vast majority of experienced teachers, it would be hard to find. The idea of evaluating all competent teachers every year according to a common set of performance standards, that, at best, represent minimum or basic expectations is little short of an institutionalized insult” (p. 703).

Stiggins and Bridgeford (1985) concluded in their research of traditional performance assessment that the majority of school districts look to teacher evaluations as a means of improving teaching performance. Their research also indicated that, in reality, given the ineffectiveness of current

evaluation approaches, most school districts have not achieved this objective.

Some researchers compare the effectiveness of traditional ranking and rating evaluation systems commonly used by many school districts in the United States to bureaucratic models found in other institutions. In these models, the employees have little ownership in the evaluation. Roper and Hoffman (1986) found that the traditional bureaucratic factory model of staff organization in which staff development is primarily the responsibility of management, is not suitable to the nature of the work of the teacher and the organization of schools. The two researchers indicated that it is critical to the overall effectiveness of the evaluation system to solicit input from the teachers. Too frequently, this is not the case in traditional bureaucratic evaluation systems. According to Roper and Hoffman, “If teachers are to be satisfied with an evaluation system and are expected to improve their performance accordingly, they need to feel that they have some control over the tasks being evaluated” (1986, p.14).

Henrico County Public Schools has developed Professional Growth Plans as an alternative to traditional teacher evaluation programs. The school district describes Professional Growth Plans as plans that provide

opportunities for the continuous professional growth of instructional personnel and concurrently empower the same personnel to make responsible decisions about their own professional development. Additionally, the HCPGP has been designed to allow teachers to be responsible for analyzing their own performance and to facilitate learning for themselves and their students. Unlike traditional evaluation systems described earlier, the Henrico County Professional Growth Plan provides teachers with opportunities to develop a self-assessment system, which also includes input from administrators, peers, students, and parents. The self-assessment is the primary catalyst for the plan development conference and is the point of discussion between the teachers and their respective principals prior to formal approval and implementation of the plan. After the plan development conferences, the teachers select one of the following plan options:

- Structured Growth
- Individual Growth
- Peer Development
- Collegial Partnership

Those teachers who have three or fewer years of experience or are on probationary status, are automatically assigned the Structured Growth

Option. All other teachers can select any of the four options. A detailed description of the Professional Growth Plan, including the options and time line for implementation, is included in the following section.

Professional Growth Plan Development and Implementation

The Henrico County Public School Board has indicated that the many issues related to job expectations involved in teacher evaluations cannot be reduced to checklists frequently used in traditional teacher evaluation procedures. Further, the Henrico County Public Schools, reinforced by prior research, has indicated that for a teacher evaluation program to prove successful, employee commitment is indispensable. As a result, the school district developed a Professional Growth Plan designed to solicit employee cooperation and commitment in order to improve their professional duties. The previously used process consisted of the traditional ranking and rating of employees and was based entirely on observations by building level school administrators. Many employees indicated that this highly prescriptive process did not contribute to improved performance and, subsequently, to improved student learning.

In January 1995, the Department of Human Resources established a

steering committee which was designed to represent employees from all job classifications, schools, and other work sites. The committee believed that the roles of teachers, support personnel, and administrators/supervisors needed to be revised in the context of maintaining respect for all employees as professionals. The first step in designing the plan was to identify expectations that could reasonably be held for employees and that could be achieved in an environment marked by mutual respect and trust.

In February of 1995, a task force composed of more than 100 individuals representing each of the 55 schools and other work sites began establishing options for the HCPGP. In March of 1995, a draft of the plan from each subcommittee was presented to the Henrico County School Board. The draft plan was also shared with each of the 2,300 teachers and their suggestions were used to develop the final plan. In April and May of 1995, teacher representatives and principals reviewed the final plan with their respective faculties.

Extensive work was done to prepare for implementation of the HCPGP. A video demonstrating implementation of the plan was made in May of 1995. Staff development seminars were held for all administrative

and supervisory personnel throughout the summer of 1995. All Professional Growth Plan documents were completed in September of 1995. Although there were separate professional growth plans developed for classified personnel, administrators, and teachers, this study focuses on the plan for licensed teachers.

A preliminary review of the literature on evaluation systems indicated that traditional teacher evaluation programs were not effective in achieving their intended purposes. Information that defined growth, empowerment, and professional development was provided earlier in this introduction.

Professional growth and the empowerment of teachers to make decisions regarding their development are important in growth oriented evaluation systems (Duke, 1993).

In response to the research on traditional evaluation programs, Henrico County Public Schools has implemented a growth oriented evaluation system; however, the effectiveness of the Henrico plan has not been evaluated. The rationale for this study is to determine the effectiveness of teachers' options included in the Henrico County Schools Professional Growth Plans as measured by data collected from teachers. Further, the purpose of this study

is to examine the differences in the perceptions of teachers under the four different options of the Henrico County Professional Growth Plan. The most important outcome of any educational system is student learning; however, this is a complex issue. For the purpose of this study, the focus will be on teacher professional growth and instructional planning as potential influences upon student learning. The study is guided by the following research questions:

1. How do teachers view each of the four major options of the Professional Growth Plan (Structured, Individualized, Peer Development, and Collegial Partnership plans) with regard to the provision of opportunities for teachers' continuous growth?
2. How do teachers view each of the four major options of the Professional Growth Plan (Structured, Individualized, Peer Development, and Collegial Partnership plans) with regard to contributions to instructional planning?
3. How do teachers view each of the four major options of the Professional Growth Plan (Structured, Individualized, Peer Development, and Collegial Partnership plans) with regard to

empowering teachers to be responsible for analyzing their performance?

4. How do teachers view each of the four major options of the Professional Growth Plan (Structured, Individualized, Peer Development, and Collegial Partnership plans) with regard to empowering teachers to facilitate learning for themselves?

SIGNIFICANCE OF THE STUDY

This study will add to the body of knowledge in education regarding alternative teacher evaluation programs and professional growth of teachers. Growth oriented evaluation systems are relatively new in education, and many of those that are being used currently have not been evaluated. Additionally, prior studies of traditional evaluation systems have indicated that such evaluation programs have not been effective in promoting professional growth. School boards and superintendents expect teachers to expand their knowledge and skills and, as a result, to provide instruction that will increase opportunities for student learning. If traditional or conventional evaluation systems have not met this need, it is incumbent upon educators to seek alternative evaluation systems. Just as important, it must be determined

if the alternative evaluation systems are effective.

Information from this study will assist school systems in reviewing the Professional Growth Plan and making revisions is recommended and necessary. Also, this study should prove helpful to human resource administrators and other school district employees in developing plans that encourage professional growth.

LIMITATIONS OF THE STUDY

1. The analysis used in this study will be conducted using data from the Henrico County Public School System. The findings will offer limited opportunities for generalization because the data collected from a single school district may not be representative of other school districts. Because of the size and diversity of the Henrico County school district, however, information collected may be applicable to other school districts.
2. Professional growth plans for teachers similar to the HCPGP are relatively new in the field of education and have not been evaluated extensively. The Henrico County Professional Growth Plan has been in existence since the 1995-96 school year. However, the Danville

City Public Schools, Commonwealth of Virginia, developed a similar professional growth plan in 1993. Several administrators and teachers representing Henrico County Public Schools visited the Danville City Public Schools in 1995 and discussed both the development and implementation of the Danville professional growth plan. Danville administrators had not evaluated their plan, but reported that informally teachers and administrators had responded favorably. In the fall of 1997, Caroline County Public Schools, Commonwealth of Virginia, implemented a professional growth plan also similar to those in use in Danville City and Henrico County Public Schools. Like Henrico County, Caroline County school administrators sought the input of the Danville Public Schools prior to development of their professional growth plan. Although a limited number of school systems have developed professional growth plans in lieu of traditional evaluation systems, the models have not been evaluated.

As mentioned earlier, growth oriented evaluation systems generally allow teachers to have input into the development and implementation of plans. Further, teachers are instrumental in deciding specific staff

development activities in which they will participate. The following description of the HCPGP is targeted toward the development of plans for teachers although separate plans for administrators and classified staff are included in the overall process.

DESCRIPTION OF THE PROFESSIONAL GROWTH PLAN

The major goals of the Henrico County Public Schools Professional Growth Plan for teachers are as follows:

1. To provide opportunities for continuous growth for staff members and quality education for students; and
2. To empower personnel to make responsible decisions about their own growth and to be responsible for analyzing their performance and facilitating learning for themselves and the students they serve.

Although the HCPGP addresses the professional growth of all personnel, this study will focus on the implications for teachers. The Henrico County Professional Growth Plan includes opportunities for personnel to choose one or more options. A written self-evaluation is the primary catalyst for plan development and is discussed with the supervisor prior to the completion of the plan. The options include (1) Structured Growth, (2)

Individual Growth, (3) Peer Development, and (4) Collegial Partnership.

Option One: Structured Growth Plan

Target Staff: Available to all licensed instructional personnel and required of all probationary teachers.

Description: This option requires staff members to utilize the Professional Responsibilities document with monitoring by the principal/designee. This Professional Responsibilities document outlines the professional expectations for personnel. Based on formal and informal observations, daily interactions, and ongoing assessment, the principal will prepare a written performance report for licensed professionals who participate in this component of the Professional Growth Plan. This report will include an assessment of the probationary employee's performance, and it will be submitted annually during the probationary period.

Procedures:

1. The principal/designee will schedule a minimum of four classroom visitations per year.
1. The length of the visitation should be for one class period or the duration of a lesson.

2. A follow-up conference will be held within one week after each visitation.
3. Written commendations and recommendations will be provided at this conference.
4. The principal's written performance report will be presented to the teacher during the conference. For probationary personnel (non-tenured teachers), an interim report must be submitted to the Personnel Department by December 15 and the final report by February 15.
5. By May 15, the entire process should be complete.

The teacher will provide for the principal a brief written summary of growth experiences twice per school year (midyear and final).

Roles of the Principal/Designee: Assist, support, and monitor growth.

Roles of Teacher Advisor: Advise, assist, and support.

Option Two: Individual Growth Plan

Target Staff: Available to all licensed instructional personnel.

Description: The Individual Growth Plan allows each licensed professional of Henrico County Public Schools to select a personalized plan for continued growth to support instructional improvement. Components of the Individual

Growth plan include, but are not limited to:

1. addressing a specific topic(s) or pupil population needs
2. changing personal style of teaching
3. expanding the use of technology
4. reviewing professional literature
5. conducting staff development
6. completing course work
7. attending professional conferences
8. implementing current educational strategies
9. implementing strategies outlined in the school's biennial plan

Procedures:

1. Identify the need or interest.
2. Develop a proposal to include:
 - Statement of Plan
 - Time Frame
 - Implementation
 - Documentation
3. Meet with the principal or designee to discuss the proposal.

4. Finalize and implement plan by October 1.
5. Summarize Results:
 - a. Review progress by February 28.
 - b. Complete end-of-year summary, including self-assessment.
 - c. Complete final summary by May 15.

Roles of Principal/Designee: Assist, support, and provide feedback

Option Three: Peer Development Program

Target Staff: Available to all licensed instructional personnel.

Description: The peer development component serves any professional who can benefit from expertise provided by one or more individuals. The peer developer will advise, observe, and confer on agreed upon areas. This option may include peer development between participants at the same work site or participants at different organizational levels or work sites. (Examples: administrator/teacher, teacher/teacher)

Procedures:

1. The participants will state rationale of the plan at the conference.
 2. The participants will select individuals with whom to work and plan.
- The principal will provide assistance if needed. Assistance may

include a list of interested individuals by areas of expertise.

3. Participants will meet with the principal to discuss the tentative plan.
4. A summary of observations and conferences will be developed and a copy will be sent to the principal. The observations may be reciprocal.
5. Methods of documentation and reporting will be developed by participants.
6. Follow-up observations, conferences, and strategies for continuous improvement will be implemented and shared with the administrator.
6. Administrators will assist in scheduling arrangements for this process.
(Examples: class coverage and/or release time)
8. Continuous communication between participants is necessary for professional growth; such communication will be documented.

Role of Principal/Supervisor: Provide formal and informal feedback.

Option Four: Collegial Partnership

Target Staff: Available to all licensed instructional personnel.

Description:

1. Licensed personnel identify need/interest.

2. Licensed personnel identify partners.
3. Licensed personnel develop plans to meet goals for implementing the partnership. They determine what they will do cooperatively for the improvement of instruction. Techniques may include (a) reading, (b) dialogue, (c) planning, (d) observation, (e) visitation (f) goal setting, (g) reflective writing, and (h) collaboration.
4. The plan is developed to include time lines, midyear summary, method of documentation, and a projected outcome assessment.
5. The plan is reviewed by the principal.
6. The plan is implemented.
7. A written summary of situations, learning, reflection, and possible opportunities for sharing successful strategies (staff development) is provided.

Suggested Activities: May include but are not limited to:

1. Team teaching
2. Interdisciplinary teams
3. Using technology
4. Grant writing

5. Curriculum writing
6. Teaming with guidance and other support staff
7. Articulation with feeder school
8. Inclusion
9. Business/technology preparation
10. Preparation for standardized testing

All forms for completion and documentation of the four options will be included in the appendix. The Professional Responsibilities of Instructional Personnel (teachers) will also be included in the appendix.

Timetable for the Professional Growth Plan Process

The time lines are to be observed for administrative effectiveness, but these deadlines do not create any procedural protection for employees above those already provided by law. In the event a due date is a date not included in the school district calendar as a teacher work day, the first work date thereafter becomes the due date.

7. All employees

October 15

- Principals/supervisors must provide their employees with appropriate information to establish expectations and guidelines for the HCPGP.
- Each employee must use the Professional Responsibilities document and his or her own experience to complete an introspective self-evaluation.
- Each employee must choose a professional growth option, complete Part I of the HCPGP, and meet with the principal/designee or a specified supervisor to discuss the growth plan. All plans must be approved by the principal/supervisor.

2. Probationary employees

December 15

- Part II: Midyear Progress Report must be submitted to the Human Resources Department.

February 15

- Part III: Final Summary Report must be submitted to the Human

Resources Department.

3. Non-probationary employees

February 15

- Part II: Midyear Progress Report must be submitted to the Human Resources Department.

May 15

- Part III: Final Summary Report must be submitted to the Human Resources Department

The time line for the HCPGP may be adjusted for first year employees based upon date of employment.

CHAPTER II

Review of the Literature

Background

A review of literature was conducted to provide general background information relevant to current teacher evaluation programs and professional growth. This information is presented in Chapter II, which is divided into four sections. Presented in Section I is an overview of the historical perspective of teacher evaluation and professional development. Included in Section II is a review of literature and research conducted on factors that influence teacher evaluations and professional development. Various issues and strategies regarding evaluation and professional development are addressed, including the rationale for providing additional research on teacher evaluation, as well as a review of literature on the effectiveness of traditional evaluation methods, teacher peer relationships and peer coaching, and teacher collaboration in professional development. Presented in Section III is background information on self-evaluation and professional growth. Included in Section IV is a description of the professional development activities offered to support the professional development of teachers in the

school system under study. The sources used for this study included books, journals, periodicals, reports, school district documents, and training materials.

Historical Overview of Teacher Evaluation and Professional Growth

Teacher evaluation and staff development have progressed from virtual non-existence in the early history of public education to sophisticated efforts for professional development today. Stufflebeam and Shinkfield (1995) indicated that the first coordinated nationwide effort to evaluate teachers was in England during the Victorian era. This evaluation process, called payment for results, paid teachers salaries according to how well their students achieved the basics of learning in government funded boarding schools. The process was under the direction of Her Majesty's Inspectors and was in existence for two decades. As a result of public outcry over its inadequacies, it was eliminated by the English Parliament in 1902.

As the New England Puritans established a system of public education, they realized the importance of making education a fundamental responsibility of the government. Such a new system of public education at that point in history included very little advanced training or evaluation for

teachers. Teaching was considered to be a simple job, primarily because it had been historically the responsibility of the family (Schiffer, 1988).

According to Arthur Blumberg (1985), rankings and ratings of teachers used frequently today in teacher evaluation systems in the United States were prevalent during the 1800's. Blumberg reviewed the *Annual Report of the Superintendent of Common Schools of the State of New York 1845* and found that it was quite common for superintendents to rank teachers in one of three categories. Teachers ranked in the first category were believed to be the most competent and those in the third category were classified as being totally unfit to teach.

With few exceptions, there was little effort to provide training for teachers. The major training provided was in the form of teacher institutes; these institutes were generally one to two weeks in length and provided training to improve teachers' knowledge of what they were teaching. Schiffer (1980) found that teacher institutes were the result of more complicated goals for schools. With the rise of common schools, a free public school education opened to the general populace, ideas about schooling became more complicated, and the goals of the school became more of a driving force for

requiring teachers to receive training to meet those goals. The accountability required for meeting the goals also reinforced the need for evaluation systems.

During the late 1800s, universities became more involved in the preparation of secondary and elementary teachers (Winitzky, Stoddart, and O’Keefe, 1992). This movement was provided increased impetus through the efforts of John Dewey to establish laboratory schools on college campuses. He envisioned laboratory schools as research sites to assist in the preparation of new teachers. Winitzky, et al. (1992) wrote, “Laboratory schools reached their peak in the 1960s, but even then they failed to achieve Dewey’s ideal for research. Those who operated lab schools never considered research to be their opportunity; instead they emphasized educating children and new teachers” (p.21).

According to Stufflebeam and Shinkfield (1995), there was little evidence that formal evaluation procedures existed during the 1900s, but there were indications of what the public believed to be the attributes of good teaching. As a result, teachers were judged or informally evaluated by the public according to those attributes. Physical attributes, including personal

grooming and personal traits were viewed as acceptable evaluative criteria. Stufflebeam and Shinkfield wrote, “It was assumed that a teacher who wrote well, maintained a good appearance, and was enthusiastic, confident, and of good sound integrity was a good teacher to whom students would respond by making pleasing progress” (p.12).

Charles Bobbitt, an influential writer of the early 1900s, attempted to show a connection between the theory and practice of industry and of education (Stufflebeam and Shinkfield, 1995). Bobbitt tried to show that the application of techniques used in industry, particularly those used in management schools, should produce predictable and improved results. This method imposed a formal structure upon the evaluation process. In 1924, a National Education Association report indicated that 75 percent of school systems in large cities were using various kinds of rating instruments, a practice which, according to Stufflebeam and Shinkfield, was the possible outcome of similar movements in industry. Prominent among the evaluative criteria were instructional techniques, personality, professional attitude, cooperation, and the maintenance of discipline records that incorporated classroom management. By 1983, 98 percent of school districts had

employed some type of teacher evaluation system.

Judith Schiffer's (1988) research on teacher training indicates that the advances in research on worker motivation and administrative theory during the 1920's caused teacher training to move towards meeting the criteria of professional status. Schiffer wrote, "Thus, the aim of in-service education changed from upgrading the individual teacher's knowledge and skills to that of promoting the professional growth of the school staff through cooperative group efforts" (p.2).

Evaluation standards represented an essential component of teacher evaluation history. In 1988, there was a nationwide effort to develop standards for planning and implementing teacher assessment systems. The Joint Committee on Standards for Educational Evaluation prepared a document entitled "The Personnel Evaluation Standards: How to Assess Systems for Evaluating Educators"; this document had a significant influence on teacher evaluations. In 1994, Texas adopted an adaptation of the "Personnel Evaluation Standards" as state policy for teacher evaluations (Stufflebeam and Shinkfield, 1995) . In addition, later court decisions in Texas regarding the release of teacher evaluations for use in legal

proceedings have been influenced by the standards.

Stufflebeam (1988, p.21) summarized the Texas Standards as follows:

Priority Standards

The Priority Standards require that evaluations be conducted legally, ethically, and with due regard for the welfare of evaluates and clients of the evaluations.

Service Orientation

Evaluations of educators should promote sound education principles, fulfillment of institutional missions, and effective performance of job responsibilities, so that the educational needs of students, community, and society are met.

Formal Evaluation Guidelines

Guidelines for personnel evaluation should be recorded in statements of policy, negotiated agreements, and/or personnel evaluation manuals, so that evaluations are consistent, equitable, and in accordance with pertinent laws and ethical codes.

Conflict of Interest

Conflicts of interest should be identified and dealt with openly and honestly, so that they do not compromise the evaluation process and results.

Access to Personnel Evaluation Reports

Access to reports of personnel evaluation should be limited to those individuals with legitimate need to review and use the reports, so that appropriate use of the information is assured.

Interactions with Evaluates

The evaluation should address evaluates in a professional, considerate, and courteous manner, so that their self-esteem, motivation, professional reputations, performance, and attitude toward personnel

evaluation are enhanced or, at least, not needlessly damaged.

One of the most recent efforts in teacher evaluation and professional development has been the establishment of professional development schools (P.D.S.). These programs were developed with the primary purpose of linking universities and public schools and, as a result, linking theory to practice (Winitzky, et al., 1992). The university professors in professional development schools today are involved in teacher education programs that occur directly in classrooms, testing new theories and training teachers to attempt new and innovative teaching techniques. The integration of computer technology as a regular part of classroom instruction is a popular example of a focus for some P.D.S. programs.

As new teacher evaluation systems are developed, a historical perspective provides valuable lessons to consider. Stufflebeam and Shinkfield (1995) outlined the following lessons:

1. Traditionally, U.S. teachers have not been held in high esteem; society through its press for more rigorous and consequential teacher evaluation has denoted that teacher competence and professionalism are suspect.
2. Teachers have gained power through collective bargaining,

resulting in many places in a stalemate over teacher evaluation between the school authority and teacher unions.

3. The attempt to improve teacher evaluation by finding the researched-based indicators of effective teaching, for a time, carried an aura of scientific respectability, but subsequently failed and became discarded.
4. There remains a persistent quest to find defensible ways to assess teaching effectiveness based on student learning gains.
5. There also is a renewed interest in directly assessing teacher performance of assigned duties.
6. There is a growing consensus that whatever evaluation approach is used, it must help teachers to improve teaching competence, performance, and effectiveness.
7. There are as yet no clear winners among the competing approaches to teacher evaluation.
8. The Personnel Evaluation Standards provide a solid foundation for guiding and assessing the further efforts to improve teacher evaluation.

Factors that Influence Teacher Evaluation and Professional Development

It is important to consider the rationale for studying teacher evaluations. “In order to educate students effectively and to achieve other related goals, educational institutions must use evaluations to select, retain,

and develop qualified personnel and to manage and facilitate their work,” wrote Stufflebeam (1988, p. 5). This goal leads us to the need for more research in the area of teacher evaluation. Levine (1979) found in his review of research on teacher evaluation that the entire field suffered from a surplus of opinions and a shortage of evidence based on sound research. Levine also found little evidence to support the reliability, validity, or positive effects of most techniques used in teacher evaluations. Ryan and Hickcox (1980) concluded in their research that even if there were consensus as to the primary purpose of teacher evaluations, there appeared to be little agreement concerning whether practices actually focused on its primary purpose.

The use of the case study of school districts is prominent among several research techniques pursuant to gaining knowledge regarding teacher evaluation programs. Stiggins and Duke (1988) completed case studies with substantial implications for teacher evaluation. In one study, 5,000 teachers in the Pacific Northwest were asked whether the researchers had experiences with teacher evaluation processes that contributed to their professional growth. Thirty-three respondents were mutually selected to participate in the final study. The primary goal of the Stiggins-Duke study was to profile the

individual evaluations of the participants in terms of the attributes that the respondents perceived made them successful, and then to compare their profiles with regard to attributes common to a number of cases of effective evaluations. Extensive structured interviews were recorded and converted to written transcripts. Two principals who had established good records for conducting high quality, growth-producing evaluations also were interviewed.

Through an analysis of the content included in the interviews, the researchers identified elements of success in teacher evaluations, e.g., teachers, evaluators, procedures, feedback, and context. They also identified teacher attributes emerging from the case studies which influenced outcomes of the evaluation processes. These attributes included the following:

1. Instructional competence
2. The ability to stay informed of current effective instructional practices
3. Personal expectations
4. Openness to suggestions
5. Orientation to change

6. Subject knowledge.

Each attribute should be considered in revising or developing a teacher evaluation program. Stiggins and Duke also identified attributes of the person who effectively observes and evaluates, i.e., the principal. Attributes included credibility, persuasiveness, patience, trust, a good track record (making suggestions that really worked to teachers), and modeling (demonstrating techniques). Staff development activities for evaluators of teachers should encompass these attributes. The study concluded that major characteristics of the procedures used to gather data on teacher performance include the manner in which the performance standards are addressed, the various information sources used to evaluate performance, and the procedures used to gather information on classroom performance. These factors have implications for new evaluation processes that may be developed. Finally, listed below are the attributes that influence feedback:

1. The amount of feedback given at one time.
2. The way to communicate ideas and suggestions that will make the most sense to the teacher.
3. The provision of information suggesting specific actions to the teacher to facilitate growth.

4. The frequency at which feedback on performance is provided.
5. The way feedback relates to pre-specified performance standards.

The Stiggin and Duke case studies also revealed contextual factors that influence teacher evaluations, including history of labor relations, time spent on evaluations, and resources available. All of the suggested attributes are derived from researching those individuals who have grown professionally through their experiences with teacher evaluations. This information is essential for the development of plans which aspire to create opportunities for professional growth.

The HCPGP has been designed to provide opportunities for continuous growth for staff members while empowering them to make responsible decisions about their professional development. Predictably, a crucial component of HCPGP is its emphasis on establishing mutual trust between management and the instructional staff. Teacher evaluation efforts frequently fail to be effective because of the absence of trust--trust that the process will be fair, trust that the process will be worthwhile, and trust that the outcome will be of value (McLaughlin & Pfeifer, 1988). The importance of trust, as well

as the need for management to provide assistance, were highlighted in the research of Stufflebeam and Shinkfield who stated, “If teachers are convinced that the evaluation process will reduce their status or in some manner act to their detriment in relation to their job function, it is logical that a negative reaction will result. It is equally reasonable to expect that teachers who are sincerely convinced that the principal’s prime intention during evaluation is the improvement of instructional skills will be less intransigent to suggested changes in their approach to instruction” (p.16). Through their research, Singh and Shifflette (1996) determined the following: “Trust was an important component in the teacher-principal relationship and in teacher improvement. Initial awareness of the need for professional growth was primarily provided by the principal” (p.156).

Research completed by Wagner and Hill (1996) also has implications for empowerment, growth, and trust in professional growth plans. They completed one study that included a random sample of 52 teachers in the Johnson City School System, Tennessee, which investigated the nature of activities, processes, and structures used to link a teacher evaluation program to professional growth and motivation. Through use of pre- and post-

surveys, data collected were analyzed using various t-tests and ANCOVA procedures to determine the teachers' perceptions of the teacher evaluation environment, the overall quality of the evaluation, and the influence on teaching performance. Additionally, through the use of following interviews the two reported, "Analysis of data revealed attitudes, behaviors, and perceptions of those involved in the implementation of a growth-oriented approach to teacher evaluation" (p.2). Finally Wagner and Hill concluded that there were twelve critical elements within four major categories which influenced the linking of teacher professional growth, evaluation, and motivation:

The four major categories are: characteristics of the culture, characteristics of the administrator, characteristics of the teacher, and characteristics of the process. The 12 critical elements were identified as follows: a culture that has a trusting environment, collaborative relationships, and high expectations of growth; administrators who are facilitators or coaches and resource providers; teachers who are mature, responsible, and self-directed; and a continuous process that is individualized, formative, and structured. (p.2)

Earlier research completed by Karst (1987) indicated that the success of professional development programs depends heavily on the following:

1. The teachers' ability to have input on staff development activities that

will have an impact on their attitudes and skills.

2. The degree that teachers believe they have personal control over their professional growth plan or plan for improvement.
3. The quality of the communications provided through all mechanisms of the professional development program.
4. The allowance of individual creativity to develop or construct the teacher's own yearly professional development plan.
5. The amount of contributions and the degree to which one's ideas are accepted was strongly related to age, sex, position, and experience.

Karst found that older males, who had experience, held high positions, and held more academic degrees, had more opportunities for input and were happier with their jobs. On the other hand, he found that female teachers who had less experience, held only a bachelor's degree, had fewer opportunities for input and were less content than their older male colleagues.

Research by Peterson and Chenoweth (1992) indicates the following benefits of increased teacher participation in the evaluation process:

1. An increase in both the quality of teacher assessment data and the decisions they make using the data.
2. An increase in the variety of data sources, resulting in more accurate judgments which make use of more teacher time and ideas.
3. The accommodation of a variety of teaching styles.

4. Allowing more teacher professional judgment.
5. An increase in the teacher's sense of efficacy, authorship and responsibility.

The instructional model of clinical supervision, developed by Madeline Hunter and widely used in the 1980s, provided a hierarchical model for teacher evaluation. The Hunter model encouraged administrators to use a system of ranking and rating on a checklist, indicating how well teachers used clinical teaching techniques. In contrast, more collegial approaches, in which teachers assist in development of growth-oriented reflective evaluations have gained popularity during the 1990s. The latter model requires that supervisors and school principals accept the notion that teachers possess the ability to be reflective and to work through many of their own instructional issues (Wagner & Hill, 1996).

Ryan and Hickcox (1980) researched teacher perceptions using a survey instrument rather than observational data. The survey instrument included sections on the observation (frequency, persons conducting the observation, length of observation), purposes of the evaluation process, development of evaluation procedures, criteria used in teacher evaluation, and an open-ended section on the ways by which the evaluation process

might be improved. Their results indicate a discrepancy between what most educators would suggest is the major purpose of teacher evaluation (the improvement of instruction) and actual practices in teacher evaluation, which bear little or no relation to the improvement of instruction. The following is a summary of their findings:

1. The evidence is overwhelming that the reliability of the rater in classroom performance is low. It is apparent that raters operate from individual models of teacher effectiveness. The reliability of the raters can be improved with training, but we have difficulty finding ways to identify sufficient consistency.
2. The research indicates that the average number of observations per year for probationary teachers is about three. This is very small in comparison to the total number of hours teachers teach. These very limited numbers of observations hardly constitute the basis for the valid judgment of performance, even if the reliability of the raters could be established.
3. The data indicate that the principal is nearly always the primary rater and is the sole judge of performance. Although it is generally accepted that principals have been good teachers, there is no evidence that they all agree on what is considered good teaching. There is some evidence teachers are more reliable raters than principals.
4. The emphasis of teacher evaluation is on professional performance. Therefore, the criteria and the rating forms used should emphasize what goes on in the classroom; however, they deal primarily with process variables such as the techniques of instruction or the maintenance of good rapport. There is little

emphasis on subject-matter competency or on evaluation techniques, elements which are professionally oriented.

McLaughlin and Pfeifer (1988) conducted research focusing on teacher evaluation systems in four school districts, including Santa Clara Unified School District in the Silicon Valley south of San Francisco, Mountain View-Los Altos Union High School District in the San Francisco Bay area, Moraga School District in Oakland California, and Charlotte-Mecklenburg Schools in Charlotte, North Carolina. Their research indicated that improvement is a multifaceted notion. As was evident in the research of Wagner and Hill (1996), McLaughlin and Pfeifer found that self-evaluation and reflection are important components of teacher evaluation programs. They noted that individual improvement has at least two components: reflection about teaching and areas of strength and weaknesses, and motivation to change or to act on the results of reflection (McLaughlin & Pfeifer 1988). Stallings (1985) found that teachers learn significantly through analysis of their own behavior and application of ideas in ways that are relevant to them.

The research of McLaughlin and Pfeifer (1988) also concluded that

traditional teacher evaluation systems with ranking and rating checklists derive their authority from bureaucratic forms of control, not professional authority. This conclusion makes the traditional checklist system appear to be at odds with goals central to the teaching profession, i.e., increased professional stature and increased autonomy for classroom teachers. One important finding from this research and analysis is that teachers' opinions about evaluation determine its outcome: "The effectiveness of any teacher evaluation system is its ability to promote genuine accountability, its ability to contribute valid, reliable information for teacher improvement depends finally on the responses of those being evaluated, the teachers" (McLaughlin and Pfeifer, 1988, p.4). The research from the four school districts demonstrated that teachers desire accountability. Further, the ability of a teacher evaluation system to meet accountability goals depends on the extent to which good performance is acknowledged, as well. These findings add importance to the idea of using teachers' opinions of the Henrico County Professional Growth Plan to assist in evaluating it.

Stiggins and Bridgeford (1985) studied four school districts in the Pacific Northwest to gain a better understanding of current teacher

evaluation, both its problems and potentials, and to identify ways that evaluation could be effectively used to promote teacher development. They used surveys and interviews to collect data. Seventeen interviews with district administrators were conducted; in addition, forty-eight teachers received surveys, to which thirty-six responded. The teachers identified the following needs in evaluation systems to reduce barriers to professional growth and development:

1. More opportunity for collegial observations and for self-evaluation through goal setting.
2. More proficiency in evaluating lessons.
3. More opportunities to gain knowledge about what constitutes effective teaching.
4. Frequent formal and informal evaluations.
5. Greater use of peer observation.
6. More effective preparation and training for evaluators.
7. Quality inservice training to improve teacher skills.

Administrators identified the following as barriers for teacher evaluation systems:

1. Teachers' lack of trust in the process.
2. Insufficient time for evaluation.
3. The adversarial context of evaluation.
4. Principals' skill as evaluators.
5. Inconsistent evaluation procedures.
6. Imprecise requirements.
7. Lack of training for evaluators.
8. Imprecise dismissal procedures.

9. Teachers' resistance to change.
10. Inadequate staff development.

Stiggins and Bridgeforth (1985) concluded the following: "Teachers and administrators need to collaborate on the goals, criteria, and procedures for evaluation; evaluation procedures need to be geared to diagnosing teacher skills and aiding them in making instructional changes; supervisors need more time, support and training to diagnose instructional problems; and evaluation methods need to be more soundly based and linked to awards and sanctions in the organization" (p.94). Levine (1989) added that the principal might make the greatest contribution to schools by supporting the development of teachers, rather than mandating change. Principals should provide teachers with useful information that promises to make a difference to their personal and professional lives. Further, Levine stated that administrators must provide teachers with time and encouragement to make use of new information. Studies completed by Duke and Stiggins (1986) suggest that growth oriented evaluation is possible only when those involved in the process have the appropriate skills in observing and describing instructional feedback, and the ability to link individual teacher instructional

needs to professional development resources. They pointed out that evaluators must have opportunities to practice observing in the classroom, summarizing and conveying feedback, recording descriptive data, and accurately reporting it back to teachers in ways that teachers can effectively use the information. The evaluator must reflect observations back to the teacher without biased evaluative judgment.

As we look at the personal learning needs of teachers, it is important to create learning and training environments for teachers that increase their aptitude to learn. Studies completed by Joyce and Showers (1983) resulted in the development of the following principles that help teachers not only to add new teaching strategies to their repertoire, but also to become better at learning the strategies:

1. Learning new teaching strategies in itself increases the ability to learn other ones.
2. The more highly skilled learners understand the process of transfer better. Hence, the study of the process of transfer should become part of the content of training.
3. The process is simplified by concentrating on over-learning: first the new skill, then “first-stage” application, and then “expanded control.” The entire training process is not satisfying to teachers until complete mastery has been achieved.

4. The greatest new learning occurs with engagement with unfamiliar skills. The greatest opportunity for all of us is to learn skills that are quite unfamiliar to us but which have the most potential when we apply them in the classroom. (pp. 28-39)

Joyce and Showers (1983) found that the more opportunities teachers have to be in training activities, the easier it is for them to transfer the knowledge gained into practical classroom application. The transfer of new knowledge causes the teacher to stretch by reaching out beyond the edges of his or her current skills. After going through the sometimes difficult change process in learning new skills and strategies, it becomes much easier to go the “next step”, which is to learn additional strategies.

No one professional development or evaluation plan can suffice for the professional development of educators; therefore, teachers should be provided options in developing professional growth plans. Corcoran (1995) pointed out in his research that it makes sense to avoid investments in any single approach to professional development, and that all professional development strategies should be tied to a hypothesis to be tested. He also indicated that encouraging multiple strategies or options would be more prudent than mandating a single approach. As professional growth plans are

developed, opportunities to implement different options to meet the individual needs of teachers will enhance opportunities for professional growth. In addition, administrators must assist in creating an environment in which professional growth is more likely to occur, including the provision of opportunities for teachers to take part in the development of staff development plans.

According to Boyd (1993), there are several assumptions that must be considered when we attempt to understand professional development and staff development programs. These assumptions include the following:

1. Staff development programs have been viewed by many teachers as abject failures.
2. To be more effective, staff development must also be provided in a context that is strongly affective and humanistic.
3. Programs must be based on principles of adult learning theory.
4. Administrators must transfer or at least share with teachers the power to manage and plan staff development activities.
5. The traditional “one shot” inservices must be replaced with a program that is continual and integrated with the day-to-day life of teachers. (p.3)

Boyd also indicated that staff development is not just something that happens

for a few days; it must be integrated with other components of the school organization. One of those components certainly would be the development of individual growth plans. Levine (1989) supported these assumptions with research indicating that the principal may make the greatest contribution to schools by supporting and sustaining staff development rather than mandating specific activities which force teachers toward a predetermined objective. Levine further indicated that one of the first steps for creating change in teachers is providing them with useful information that promises to make a difference in their personal and professional lives. Giving teachers the time to make use of the new information, as well as continued nurturing, are cited by Levine as being high in importance. Professional growth plans that are individualized for the specific needs of teachers and that are integrated with the responsibilities of the classroom will sustain the impact of the training and help to ensure that it is relevant and targeted to individual professional growth needs. Corcoran (1995) wrote that new staff development approaches respect the expertise of accomplished teachers, are integrated with teachers' work, recognize teachers' work, recognize teachers as a valuable source of information regarding effective professional

development, and include them in the design and implementation. Providing teachers with opportunities to develop plans with review and approval of the school administration is consistent with this research. Hargreaves and Fullan (1991) stated that it is important to equip teachers with the knowledge and skills that will increase their ability to provide improved opportunities for all of their students:

Deeper knowledge of and greater confidence in teaching their subject(s); developing better expertise in classroom management so that more time can be devoted to instruction; knowing how to teach mixed-ability classes; being aware of and becoming proficient in new teaching strategies like co-operative learning or 'whole language' approach to learning; and becoming knowledgeable about and able to respond to the different learning styles of their pupils'--attention to all these things can certainly help teachers increase their pupils' opportunities to learn. (p.2)

Providing staff development activities in isolation from an overall school improvement plan or district strategic plan could lead to "one shot" staff development activities. According to Sparks and Hirsh (1997), such activities have little or no long-term effect and are designed on the premise that providing specific improved performance will be achieved when individuals learn how to do their jobs better. When providing staff

development activities in isolation from a strategic plan, teachers may learn a new instructional skill but find that their use of it gradually diminishes because no one else is using it or the administration does not support the practice. The Henrico County Professional Growth Plan is built on the system's commitment to provide continuous learning opportunities for all employees. Sparks and Hirsh (1997) found that the success of students requires improvements in the capacity of the organization to solve problems and continuously renew itself. This finding means that a school system must examine its policies, procedures, job descriptions, communication patterns, and decision-making processes to determine whether or not they meet the system's mission and goals. Regardless of their positions, educators must acquire the knowledge and skills that allow them to diagnose organizational strengths and weaknesses and design appropriate interventions. Sparks and Hirsh called this "systems thinking"; it is inclusive of the development of staff development plans that impact the mission and goals of the school district. Strategic planning, as described by Sparks and Hirsh, consists of collaborative work of committees including teachers, administrators, community leaders, parents, and other interested patrons. Staff development

activities based on inclusive strategic plans have long-range effects because they are based on goals and objectives approved by broad-based committees. Deming (1994) described a system of profound knowledge in explaining how organizations go through transformations for improvement. He emphasized the need for the individual to understand the system of profound knowledge. Deming defined profound knowledge as a map of theory by which to understand the organizations that we work in. The first step in the system transformation, according to Deming, is the transformation of individuals to perceive new meaning to life, to events, to numbers, and to interactions between people. This is achieved through knowledge frequently gained in professional development activities.

Desired organizational change is sometimes seen as the need for professional development activities. Teachers must have an active role in staff development decisions if the activities offered are truly to bring about change that will ultimately support student learning. Research by Pink and Hyde (1992) produced the following themes in the use of staff development to bring about change:

1. Designing and implementing staff development in schools is a

complex process and is difficult to undertake. Schools all have different training needs and it may be doubly complex and difficult in urban inner city schools.

2. Multiple cultures are operating simultaneously in schools and school districts which require change through staff development with specific attention given to cultural change.
3. Staff development must include multilevel involvement including coordinated activities across roles in schools, across schools, and involve personnel from central office.
4. The support of the superintendent for staff development to bring about change, together with a broad vision of the system's needs is crucial.
5. The primary focus of the staff development plan should be organizational change, not individual teacher remediation.
6. It is important that staff development for school change be teacher driven.
7. Staff development cannot be limited to teachers. Staff development for broad-based leadership at the school level is critical to school change.
8. As with most elements of teacher work in schools, providing time for staff development is a critical factor.
9. Creating practical classroom applications is critical in the successful implementation of staff development for school change.
10. Collaboration between universities and schools or school districts, such as Professional Development School partnerships,

can be important to conceptualizing, implementing, and evaluating staff development for school change.

11. Staff development plans must incorporate theory, research, and reflection of teachers and administrators to result in school change that is context specific.

In order for teachers to support professional development activities, they must be empowered to make decisions regarding the development of staff development plans regardless of whether the plans are specific to individual needs or designed to introduce a concept to a school faculty. As mentioned in the introduction, teacher empowerment in this document refers to teachers' authority or power to make decisions regarding their professional development. Corcoran (1995) stated, "Teachers have a great deal of insight into what has made professional development effective or ineffective in the past, and will be more likely to support changes if they have been significantly part of the improvement process" (p.4). Boyd (1993) added that teachers themselves are the best source of information about their learning process and needs and that they are more likely to "buy into" a program that is their own compared to one that is imposed upon them. The idea of empowering teachers to develop professional growth plans and the

connection with personal growth are significant. According to Levine (1989), “Professional development activities are far more likely to be engaging and sustaining when teachers and administrators have a hand and a voice in their determination. Adult development is an active process, not a passive one” (p.224). Boyd (1993) wrote that the dominant theme in staff development literature is that programs for teachers should be developed by teachers. He further commented that if programs are not developed directly by teachers, they should at least have a high degree of input.

Sparks and Loucks-Horsley (1989) researched five staff development models in curriculum use that have implication for the options included in the Henrico County Professional Growth Plan, i.e., individual growth plans, collegial growth plans, structured growth plans, and peer development growth plans. They described the models as follows:

Individually guided staff development - A teacher develops and carries out a personal plan for professional learning. Examples of this model may include activities such as reading professional journals or trying out new practices in the teacher’s own classroom.

Observation assessment - A teacher solicits feedback about his or her teaching practices after an observation by a peer or other observer. An example of this model is peer coaching.

Involvement in a development and improvement process - A teacher develops new programs or curriculum or participates in decision making with regard to problems identified in a school improvement process. Participation as a member of a school's site-based decision-making team might be an example of this model.

Training - A teacher attends sessions to learn new skills or obtain further knowledge. An example is traditional workshop sessions.

Inquiry - A teacher, either alone or with other teachers, follows a problem-solving process in which data are collected and analyzed and changes in practice made based on this analysis. An example of this model is action research.

The inquiry model and the model of involvement in a development and improvement process are similar to the description of activities in which teachers may participate with the individual growth and the collegial growth options described in the Henrico County Professional Growth Plan.

Observation assessment is similar to the peer observation option.

Peer relationships can take on an advisory role. As teachers learn new concepts and new instructional strategies, they may be provided opportunities to share the concepts with others. In these cases, a teacher may take on an advisor role in assisting a peer with implementation. Little (1985) found that conferences between peers are invaluable as they offer a professional opportunity that teachers are eager to repeat. Little also recognized that the

advisor role could be examined from three perspectives: (1) the advisor that works as a peer to support a teacher by modeling, providing feedback, and assistance to fellow teachers; (2) the advisor who acts as a staff developer or curriculum specialist and offers training in a specific area of need; (3) the senior colleague advisor who has gained his respect from experience and proven success. Little stated, “Central to any improvement-oriented initiative that rests heavily on joint work on teaching are the principles and skills of advising. At stake are substantial gains in professional support for learning to teach, and for the steady improvement of schools” (p. 36).

Collegial partnerships are ways that teachers can work together to enhance their professional development. Boyd (1993) stated, “Collegiality is defined as high levels of collaboration among teachers characterized by mutual respect, shared work values, cooperation , and specific conversation about teaching and learning” (p.10). Collegial relationships between teachers in planning enhance opportunities to combine knowledge and talent to assist instruction. Shower and Joyce (1996) stated that collaborative planning is essential if teachers are to divide the responsibilities of developing new units and lessons in proper sequences. In addition, they stated that collaborative

work is essential if teachers are to use one another's products. Corcoran (1995) described collegial work among teachers as joint work or sharing of responsibilities:

Joint work refers to shared responsibility for tasks, such as in-team teaching, curriculum committees, or other jobs that create interdependence among teachers and require cooperation. Joint work promotes learning on the job because it provides opportunities for productivity exchange among teachers and reflection about practice. (p.5)

Boyd (1996) pointed out that although the independence of teachers has value, the power of teachers working collaboratively cannot be overlooked:

Even though self-reliance and independence have some virtue, teachers should be encouraged to "break out of their isolation" and create a "community of learning." This theme of teacher community is central to nearly all of the other reform concepts-- affective / humanistic context, teacher empowerment, and collegiality/collaboration. (p.7)

Collaborative relationships depend largely on the ability of teachers to communicate. Frequently this is done through the development of communication networks. Corcoran (1995) described the use of teacher networks which tend to focus on specific subject matter, increase teachers'

understanding of content, and improve the use of new strategies. He referred to the networks as opportunities to open the door for teachers to a “professional community” in which their knowledge and experiences are respected by all and they can actively participate in professional dialogue to improve practice. In support of teacher networks and improved teacher communication, Brody (1996) commented that challenging new ideas or changing old ones depends on the frequency of communication between respected peers. This means that teachers must work collaboratively to support significant awareness for each other through reflective dialogue. A flexible environment that fosters growth and development is created when there exist collaborative efforts to support the learning of individuals who are attempting to implement new ideas and concepts. In such a dynamic environment, teachers are better able to support each other and share ideas. Shifflette (1993), found in her research that teachers helping teachers in peer relationships is significant in professional development:

If asked to identify the most powerful source of help in their classrooms, this group of teachers would have identified their peers. Teachers connecting to one another in substantive ways was cited by each of the teachers in the study. Peers provided awareness of the need for change, support during change, and

direct instructional leadership. When teachers wanted to know the 'how' of an instructional or classroom technique, they sought their peers. (p.180)

Shifflette's research also indicates that professional growth and development are enhanced greatly when teachers see results in the classroom. She found that learning what works and what does not work through trial and error is a factor in a teacher's professional growth. The sharing of this knowledge among peers is an important concept included in the peer observation option of the Henrico County Professional Growth Plan.

Research completed by Joyce and Showers (1983) emphasizes that the mastery of complex academic content and new strategies requires an active state of interchange. A certain amount of uneasiness is expected when teachers are learning new content and strategies. The support of colleagues through this process is essential to successful training. Creation of collaborative social systems allows those who are in the most active stages of growth to help others become successful in their learning environments.

Sparks (1985) described the Staff Development for School Improvement Model, a collaborative staff development program which is based on the premise that classroom teachers can best address their needs by

identifying their own priorities. The program includes a university facilitator who works with the staff to consider school needs honestly, to examine the available options for staff development activities, and to implement the plan in an integrated manner. Collaborative efforts of this model are based on the following steps:

1. **Development of Readiness, Awareness, and Commitment.** The university facilitator meets with the principal and staff to explain the steps in the process. If 70 percent of the staff members indicate that they desire to participate, they move on to the next step.
2. **Needs Assessment.** The university facilitator leads the faculty through several activities to establish goals for staff development activities. Activities focus on brainstorming and prioritizing needs of the school. This is followed by the selection of a planning team that will be responsible for the development of the staff development plan and implementation for that school year.
3. **Planning.** The university facilitator provides extensive guidance in assisting the staff with writing the actual plan that includes program objectives, specific staff development activities to meet the stated objectives, the cost of each of the activities, and the means by which the activities will be evaluated.
4. **Implementation.** The plan is carried out under the direction of the committees made up of members of the staff. Staff development activities usually include classroom observations, committee work on curriculum, conferences, material development, and school visitations.
5. **Evaluation.** Progress toward the school goals is monitored by the facilitator using formative and summative data collected by the school.

6. **Reassessment and Continuation.** The facilitator involves the staff in examining what they have accomplished during the year and focusing on plans for the next year. Members of the planning committee are usually replaced to provide other members of the staff an opportunity to participate.

Sparks commented that during the first two years that the model was implemented in two schools, 82 percent or more of the teachers in each school noted improvement in skills, knowledge, communication, and participation in decision making. The two most noticeable changes documented from this study were improvement in teacher morale and increased teacher responsibility in the planning of school activities.

Teacher training activities based on collaborative approaches should be flexible. Inflexible approaches based on rigid guidelines that do not allow for the individual needs of teachers are not likely to be successful. Joyce and Showers (1983) pointed out the importance of flexibility and individualization in training:

Training that is inflexible will perforce generate negative energy by depressing motivation and creating dissidence between trainees and trainers. Caring and considerate instructional designers and trainers can create settings in which training is modulated to the learning style of the teacher. The energizing qualities of the environment and the states of growth of the

teachers involved enormously influence both one's satisfaction with training and its likelihood of success. Responsive environments permit teachers to influence the process of training and adapt it to significant differences in their learning styles. (p. 32)

Co-teacher plans also support the concept of collegial work of teachers. Brody (1995) stated that the term co-teacher is used to describe classroom based partnerships between regular teachers and special education teachers. Frequently, this arrangement involves two or more teachers working together in planning, teaching, and assessing the same students, thereby creating a learning community and maintaining a commitment to collaboration with students and each other. According to Brody, "Co-teaching provides teachers with the opportunities to look at their teaching as learning. It is particularly attractive to teachers who strive to explore the possibilities in education - to create communities of learners who can respect differences, cast questions rather than only seek answers, and re-construct the nature of knowledge and knowing" (p.33).

One example of co-teacher practice is the special education inclusion program in Henrico County that provides opportunities for special education

teachers to teach as co-teachers with regular classroom teachers. Both teachers work with students identified as having special needs, as well as students who are not in the special education program, in the same classroom. The teachers frequently plan together and in some instances use the collegial partnership option of the Henrico County Professional Development Plan. Use of this option helps to integrate their professional evaluation and staff development with their work in the classroom.

Teachers in Henrico County who are interested in doing research to assist them in their work with students and with professional growth can use the individual growth plan option. This option of the Henrico County Professional Growth Plan allows teachers to use research as a part of their evaluation and professional development. According to Corcoran (1995) professional development should encourage professional growth as supported by the following:

1. Professional development arrangements should support school wide improvement, stimulate individual growth and engagement in teaching, and support career advancement.
2. Teachers should have access to their colleagues to share their individual findings, thus strengthening collegial activities.

3. Some of the individual research projects may be directed toward academic interests, but many may be directed toward problems identified by teachers themselves. There is considerable evidence that involving teachers in research can stimulate discussion, help organizations define problems, and lead to changes in practice and policy.
4. Teachers should be encouraged to apply for National Board Certification. The process of applying for certification itself is an excellent individual professional development activity as it requires teachers to document their practice, reflect on their strengths and weaknesses, and demonstrate specific knowledge and skills.

Peer coaching is included in the peer development option of the Henrico County Professional Growth Plan. In a series of studies that began in 1980, Showers and Joyce (1996) tested hypotheses related to the proposition that a weekly series of seminars or coaching sessions would enable teachers to practice and implement the content they were teaching. The seminars focused on classroom implementation and analysis of teaching; they were conducted by teachers as well as experts. Implementation of new instructional strategies was attributed to positive work in small peer coaching groups that shared in the learning process. Successful peer coaching teams developed skills in collaboration which were sustained through collegial partnerships after they accomplished their goals. As a result of these studies,

Showers and Joyce (1996) developed principles of peer coaching that include the following:

1. All members of the faculty must be members of the peer coaching team. They must agree to practice or use the change the faculty implements; share plans and support one another; and collect data on the implementation process as well as the effects on students relative to the school goal.
2. It is important to omit verbal feedback as a coaching component. The primary activities of peer coaching study teams are planning and developing curriculum and instruction.
3. When pairs of teachers observe each other, the one observing is being “coached” and the one teaching is the “coach.”
4. Teachers learn from each other while planning instructional materials, watching one another work with students, and thinking together about the importance of behavior on their students’ learning.

Opportunities for teachers to learn from each other in peer relationships have a direct impact on their professional growth. Singh and Shifflette (1996) conducted qualitative research regarding professional growth and change by asking teachers to describe the processes and forces that brought about their professional development after they had been identified as marginal teachers. One significant finding of this study was the importance of communication that takes place among teacher peers:

In spite of the barriers that prevent communication between teachers, it does happen and teachers seek one another out before and after school, between classes, at lunch and in car pools. From other comments of the teachers, an informal network of sharing ideas and giving help to one another does exist. The responses about peers were specific and more positive than for any other source of professional growth. (p.155)

This study also revealed that teachers frequently seek the advice of peers and that they value peer observations. Through peer relationships, teachers support each other by sharing resources. Peer relationships among teachers also create an awareness of the need for professional growth.

The professional growth of teachers is also enhanced as they gain experience, some of which is through trial and error. Singh and Shifflette (1996) found that a framework for professional growth is created for some teachers through learning what works and what does not work. Using new ideas in instruction and learning what is most beneficial for students can enhance the value of peer relationships among the teachers. In addition, teachers are more apt to try new ideas and learn from their experiences if they feel that they can trust the administrator.

Self-Evaluation and Professional Development

The Henrico County Professional Growth Plan provides opportunities for feedback from the administration as well as self-evaluation by the teacher in a collaborative effort toward professional development. Teachers are encouraged to have students as well as peers provide feedback as a part of the self-evaluation. Wagner & Hill (1996) concluded from their research that feedback and goal setting are essential in a collaborative model. They wrote, “In linking evaluation to professional growth, principals should collaborate with teachers in setting specific, achievable goals. They should provide teachers with constructive feedback to improve weaknesses and amplify strengths. Peer and student evaluations can provide beneficial feedback to teachers as they seek to grow professionally” (Wagner & Hill, 1996, p.4).

Anderson and Freiburg (1995) defined self-assessment as “the process of self-examination in which the teacher uses a series of sequential feedback strategies for the purpose of instructional self-improvement” (p.79). The underlying theme of their study was that teachers are capable of functioning in an autonomous manner with the overall purpose of improving instruction. Anderson and Freiburg found that the focus of self-assessment is not on summative assessment, but is based primarily on formative development.

Their findings also indicate that the opportunity for teachers to reflect on their interaction with students based on living data represents an important step in a process that could lead to a more reflective and growing profession. Teachers are actually reflecting on real experiences in the classroom and making decisions regarding future lessons based on those experiences.

The importance of self-evaluation in the professional growth of teachers cannot be ignored. In 1903, John Dewey recognized the importance of reflective practice (Wagner & Hill, 1996). Singh and Shifflette (1996) found that many teachers attributed change to themselves. Their research indicates that self-growth through self-knowledge is a common theme in teacher professional development. Boyd (1994) found that effective evaluation systems provide teachers with useful feedback on classroom needs; insights from which teachers develop new strategies; and opportunities for coaching from principals and peers to suggest changes in the classroom.

Research completed by Poplin (1992) indicates that teacher self-evaluation is important as administrators learn to share instructional leadership. Self-evaluation can enable teachers to articulate their new ideas for classroom instruction, climate, and curriculum. Poplin indicated that self-

evaluation calls on teachers to become instructional leaders, with school administrators providing a supportive role, such as finding useful resources and organizing opportunities that will help teachers stay abreast of instructional innovations in which they are interested. He further stated that school administrators should allow teachers to identify their professional growth needs through self-evaluation, but assist in guiding their growth by providing professional development opportunities.

Peterson and Chenoweth (1992) found that there are three primary limits to increasing teacher control and providing them with professional authority (p.178):

1. Recent technical developments that include teachers in evaluation programs, such as peer review of materials and teacher promotion panels, have not been widely adopted. Teachers and administrators alike lack technical expertise or awareness of various evaluation options.
2. Means to help teachers change from passive recipients of evaluation into active participators that reflect both stages of adult and organizational learning and development are needed.
3. Educators who design teacher evaluation systems continue to place teachers into receiver roles, rather than to tap the more powerful functioning of professional evaluation. Researchers and policymakers lack a vision of teacher participation.

When facilitating the professional development of teachers through a plan that is intended to support growth, personal development should be considered. Very few growth experiences happen in isolation; indeed, personal development has an influence on professional development. According to Sarah Levine (1989), "...personal development and professional growth are closely related. Development is a complicated integrated process that encompasses all aspects of functioning, from one's job to one's marriage, from one's view of self to one's perception of others"(p.219). Self-assessment of one's abilities as a part of an evaluation system can assist in realizing personal development. Boyd (1993) added that professional improvement is best achieved by first attending to one's personal and human needs. He included in the list of needs the need to belong and the need for a level of power normally provided for others of professional stature. Hargreaves and Fullan (1992) considered self-understanding to be a major component of teacher development. They wrote, "To focus on behavioral skills alone without reference to their grounding or impact on attitudes and beliefs is misguided and liable to prove ineffective. Acknowledging that teacher development is also a process of personal development marks an

important step forward in our improvement efforts” (p.7). Research completed by Peterson and Chenoweth (1992) indicates that teacher professional development is a result of a developmental process which begins with a passive state and moves through monitoring and choosing alternatives, to full control, in the sense that teachers gain decision-making power as a result of the authority they gain as professionals. They also found that control permits teachers to exercise their professional judgment and to hold back or restrain unneeded practices.

In researching the developmental phases of teacher involvement in their professional development, Peterson and Chenoweth (1992) found that human development and learning extend beyond adolescents; given the right conditions, adults progress through higher, more meaningful stages of development and learning. Stages of gradual introduction to staff development are required for teachers to want to increase their involvement and to do it well. As teachers gain positive learning experiences, more complex concepts offered in staff development activities are mastered with less difficulty.

Peterson and Chenoweth (1992) identified three major stages which

teacher evaluation may progress through from “traditional” to a true “professional” stage. In the traditional stage, teachers are minimally involved in the evaluation process. Administrators evaluate teachers based on classroom observation and general inspections of teachers’ written reports. This assessment is usually followed up by a formal meeting in which the teacher is told how to improve. Checklists are used to show areas of strength and weakness. Administrators dominate the process with little or no input from the teacher.

The transitional stage is the second stage described by Peterson and Chenoweth. In this stage the teacher has more involvement in the evaluation process than in the traditional stage, but continues to have little control over the evaluation process. The teacher is allowed to respond to new programs that are initiated by the state department of education or the central office. The true teacher developmental perspective is based on whether or not the teacher is able to complete or accomplish the new tasks in a manner that is acceptable by the administration. Cooperation and instructional improvement are usually emphasized, and the evaluation is usually anecdotal, in a written narrative form.

In the emergent stage, teachers are involved in the decision making regarding their evaluation. The evaluation also involves colleagues or peers. Teachers control data gathering, decision making, and sharing the results of their findings. They are in control of their professional development, and their perspective is broader than it was in the traditional or transitional stage of development. As a result of the professional growth evident in the emergent stage, Peterson and Chenoweth point out that teachers are able to contribute by sharing instructional leadership. The primary emphasis in teacher evaluation shifts from the limiting aspects of traditional and transitional appraisal approaches. Collegial relationships are encouraged and become a normal part of reflective conversation about teaching. The emergent stage is in line with some of the general premises of the Henrico County Professional Growth Plan which was designed to empower personnel to make responsible decisions about their own growth and to be responsible for analyzing their performance.

If evaluations are to contribute to the professional growth of teachers, resources for development must be offered. According to Duke and Stiggins (1986), it is difficult to justify a system that targets areas for growth and

professional improvement without a system-wide commitment to improvement from school board members, administrators, and teachers. In providing appropriate materials, the district demonstrates its commitment to growth oriented evaluations. Duke and Stiggins described the following as resource commitments which districts should provide in order for teachers to improve their performance:

1. Release time for visiting other classrooms, modeling a particular teaching process in a colleague's classroom, attending workshops, and the like.
2. Technical assistance from consultants and in-district experts.
3. In-class information retrieval systems that allow teachers to gain regular feedback on performance.
4. Videotape equipment (with the understanding that the tapes remain in the teacher's possession and their release for viewing by others is up to the teacher).
5. Staff development activities (often provided for individual teachers).
6. Professional library materials.
7. Peer mentors.

In order to facilitate a better understanding of the commitment and

support to professional development by the school system under study, information regarding staff development opportunities offered is provided in the next section. The professional development offerings must support the Professional Growth Plan in order to help teachers meet their growth needs.

Staff Development in Henrico County

A variety of staff development activities to support professional growth plans is offered to employees in the Henrico County Public Schools. The Office of Staff Development coordinates the majority of staff development offerings. Additional staff development activities are planned by instructional specialists who are responsible for specific curriculum areas or programs.

Special Content Courses (S.C.C.) that cover a variety of subjects are offered during the fall and spring semesters of each school year; many of the courses are planned as a result of requests from teachers and administrators. These courses are offered free of charge to all employees. Teachers register for courses to meet individual needs or to support the goals of their professional growth plans. They also receive recertification points toward license renewal as described in Virginia relicensure procedures. During the

first semester of the 1997-98 school year, 57 S.C.C. courses were offered, with an enrollment 524 of participants; 54 courses were offered second semester, with an enrollment of 503. In addition to S.C.C. courses, many teachers take either on-campus college courses or college satellite courses offered in the Richmond and Tidewater area. A sample of S.C.C. courses offered during the first and second semesters of the 1997-98 school year is included in the Appendix.

Each school has a teacher who serves as a staff development planner. In addition to staff development planning responsibilities, school staff development planners provide the Office of Staff Development valuable information regarding school training needs. This information is used by the Office of Staff Development to determine district-wide S.C.C. course offerings as well as workshops and courses needed for individual schools or departments. Courses are not offered if there are fewer than eight individuals registered.

During the summer of 1997, the school system conducted its first Summer Institute which included 250 courses. Courses were offered in every instructional content area and were taught by Henrico County teachers and

instructional specialists. Several of the courses focused on the integration of computer technology in instruction and the use of computers as productivity tools, utilizing spreadsheet, database, grade book, word processing, and Internet programs.

The 1998 Summer Institute included 261 courses for which teachers registered over the Internet using special passwords that provided access to the Office of Staff Development special web site. The integration of the new Virginia Standards of Learning Objectives in course offerings was a primary emphasis in the 1998 Summer Institute. Instructors were required to participate in special training sessions to create consistency in emphasizing the integration of the new Standards of Learning in course offerings. The Virginia State Department of Education's teacher technology competencies are incorporated into the new Henrico County technology checklist used by teachers to determine individual technology skills that may be enhanced with additional training. Teachers were able to use this information to help them select technology courses offered in the Summer Institute. The checklist is included in the Appendix.

For courses and workshops to enhance professional development,

tuition/registration reimbursement is available to all Henrico County Public School full- and part-time employees. Eligible employees may be reimbursed for the tuition of college courses up to \$350 per course. Additionally, they may be reimbursed up to \$350 for seminars and workshops related to their jobs and professional growth plans. Each employee may apply for a maximum total reimbursement of \$700 per year.

As a result of the school district's elementary and secondary technology initiatives, computer technology courses emphasizing the integration of technology in classroom instruction and the use of computers as productivity tools continue to be a focus of many staff development offerings. These offerings include training to enhance classroom instruction with computers, laser disk players, computer projection devices, calculators, the Internet, the intranet (the school system's internal network), and software packages targeted for specific grade level instructional objectives.

Additionally, individual teacher professional growth plans frequently include technology training goals and strategies to enhance the effective use of technology. In addition to computer labs offered in some of the 39 elementary schools (grades kindergarten - five), each classroom is equipped

with five computers. The eight middle schools (grades six, seven, and eight) and one alternative middle school are equipped with computer labs; all grade six classrooms covering the core subjects of math, language arts, science, and social studies each have five computers. All other middle school classrooms have one computer each. The eight high schools and one alternative high school have computer labs for general instructional use and specialized labs for technical and vocational education programs. One computer per classroom is provided in core subject areas.

Training with a focus in the use of computer technology is an essential component of the Henrico County elementary and secondary computer initiative. The Office of Staff Development coordinates two full days and one half day of technology training each year for teachers in grades kindergarten through five, as well as two days of training for teachers in grades six through twelve. Collaborative planning by grade level is used to develop units that incorporate technology into the curriculum.

Another district staff development issue involves training teachers on the major writing domains included on the state Literacy Passport Tests and Standards of Learning tests. Fourth and fifth grade teachers are provided

three days of training which emphasize the teaching of writing domains, including mechanics, usage, composing, and style. Similar training is provided for secondary teachers who must prepare students for the writing sections of the Standards of Learning tests.

Teachers new to the school system are provided staff development activities to acclimate them to the school system for three days during the month of August prior to the return of all staff for the new school year. During these training days, the new teachers are involved in staff development activities that include violent crisis intervention, classroom management, and the use of computer technology. Substitute teachers also receive training on the same topics in their orientation sessions.

Each school is responsible for the development of a biennial plan that serves primarily as a school improvement plan. Administrators, teachers, and parents serve on committees to develop the biennial plans that include goals, objectives, and strategies. These plans also include many of the school-based staff development activities that are coordinated by the school administration and school staff development planners and supported by the Office of Staff Development. The biennial plans may also reflect the collective training

needs included in individual teacher professional development plans.

Teacher professional development plans may include leadership development for individuals who are considering positions in school administration. *Leaders Are Learners* is the Henrico County leadership development program that includes a variety of training components based on specific leadership needs in Henrico County. In addition to prospective administrators, principals, assistant principals, central office specialists, directors, assistant superintendents, and the superintendent participate in training sessions. Forty-five sessions were offered during the 1997-98 school year; they covered a variety of topics focusing on management skills, personal attributes, and leadership skills.

CHAPTER III

Methodology

Population

Ary (1996) stated that the first step in identifying the subjects of a study is to describe the population of interest, including the process of drawing the sample from the population. The population for this study consisted of 2,443 teachers of the Henrico County Public Schools. In order to ensure proper representation across the school district, the sample included teachers from 58 schools (39 elementary schools, 9 middle schools, and 10 high schools). The Henrico County Public Schools Office of Human Resources provided the names of all teachers identified as participating in at least one of the Professional Growth Plan options.

Ary (1996) described quantitative research as inquiry employing definitions to generate numerical data to answer predetermined questions. Quantitative research methods were employed to answer the research questions using a survey instrument as the primary data collection tool. Focus groups of teachers and administrators assisted in the survey development.

The conceptual framework depicts the primary dimensions under study. This framework allows the researcher to set up tests of the relationships among variables. According to Kerlinger (1973), “Designs tell us, in a sense, what observations to make, how to make them and how to analyze the quantitative representations” (p. 301). The table below explains the factors used in the data analysis, i.e., the three options of the HCPGP (collegial, individual, structured) and the constructs included in the research questions. Additionally, comparisons are made among teacher responses by school level (elementary, middle, and high school).

Conceptual Framework

	Collegial Option			Individual Option			Structured Option		
	Elem	Middle	High	Elem	Middle	High	Elem	Middle	High
Continuous Growth		Attitudes Toward Professional Growth Plan							
Instructional Planning									
Performance Empowerment									
Facilitation of Own Learning									

Figure 1

The primary reason for describing the data in this fashion was to compare teachers' perceptions by plan option and construct.

As shown in Figure 1, this study focused on differences in teachers' attitudes toward each of the primary options of the Henrico County Professional Growth Plan. The left column, that includes continuous learning, instructional planning, performance empowerment, and facilitation of own learning, refers to the four research questions. The three primary options of the plan being compared, collegial, individual, and structured, are listed at the top of the diagram. The framework allows the researcher to label the variables and show that the data collected will be by primary grade levels including elementary, middle, and high school.

Selection of Teachers

Krejcie and Morgan's (1970) **Table for Determining Sample Size for a Given Population** indicated that a population of 2,400 to 2,599 should include a sample size of 331 teachers. Permission was granted to utilize a scanning device, for which scan forms were purchased for survey responses, thereby increasing survey data collection efficiency. The sample was increased to 712 teachers in order to carry out further analyses on

subgroups.

An equal number of teachers from each of the three primary Professional Growth Plan options (structured growth, individual growth, and collegial growth) was selected. For each of the primary options, a proportionate sample of teachers was drawn from each level, i.e., elementary (kindergarten through grade five), middle (grades six through eight), and secondary (grades nine through twelve), with the sample proportion being equal to the proportion of the total group. Within each of the plan options identified at each level, the SAS software system random number function was used to select randomly the percentages of teachers needed. Only twenty teachers were identified as participating in the peer observation option; therefore, all participants in this option were included in the sample. Table 3.1 and the sample target descriptions further indicate how the number of participants was selected for each option by grade level.

Table 3.1 Professional Growth Plan Options By School Level (97-98)

SCHOOL LEVEL		PLAN CODE				Total Freq. Col %
Frequency	Row Pct	C	I	P	S	
ELEM #		417	508	7	281	1213
Row %		34.4%	41.9%	0.6%	23.2%	47.5%
MIDL #		68	363	1	150	582
Row %		11.7%	62.4%	0.2%	25.8%	22.8%
HIGH #		48	505	12	193	758
Row %		6.3%	66.6%	1.6%	25.5%	29.7%
Total		533	1376	20	624	2553
Row %		20.9%	53.9%	0.8%	24.4%	

C= Collegial Partnership Option

I = Individual Option

P= Peer Observation Option

S= Structured Growth Option

Collegial, individual, and structured options will be referred to as the primary plan options because only 20 teachers participated in the peer observation option.

Sample Targets (Description of Matrix Table)

1. All teachers who selected the peer option were included in the survey because of the small number who participated in this option.
2. Seven hundred teachers were selected from the three primary plan options (structured growth, individual growth, and collegial growth). An equal number, approximately 234 teachers, was selected from each primary plan option.

3. In each of the primary plans, the number of teachers selected from each level was proportionate to the percentage of teachers comprising that level within the total group.
4. For the total group, 47.5% were elementary teachers; therefore, 47.5% of the 234 teachers in each group produced a sample of 111 elementary school participants.
5. For the total group, 22.8% were middle teachers; therefore, 22.8% of the 234 in each group produced a sample of 53 middle school participants.
6. For the total group, 29.7% were high school teachers; therefore, 29.7% of the 234 in each group produced a sample of 70 high school participants.
7. When the percentages did not come out even, the number selected was slightly larger than the target number in each cell.
8. For the high school collegial option, the total number of 48 was below the target; therefore, the total number of participants was included in the sample.

The SAS computer software random number function was used to determine the percentage that was needed for each cell. The actual numbers of teachers selected for each group are displayed in Table 3.2.

Table 3.2 Teachers Selected

Frequency	C	I	P	S	Total Freq.
Elementary #	114	111	7	112	344
Middle #	53	56	1	54	164
High #	48	71	12	73	204
Total	215	238	20	239	712

Data Collection

The primary method of data collection was the use of a survey instrument designed with the assistance of focus groups. Ary (1996) stated that when a research instrument is designed by the researcher, it is necessary to outline the procedure for developing it. Development of the questionnaire for this study was based on the research questions, the intended goals of the HCPGP, a review of the literature, and input from focus groups.

Three focus groups, two consisting of teachers and one consisting of administrators, assisted in determining items to be emphasized in the questionnaire. The director of elementary education and the director of secondary education for Henrico County Public Schools provided assistance in selecting teacher representatives from grades K-12 for the purpose of participating in focus groups. The information provided by these focus groups was essential for the development of survey questions. The first

meeting was held with eight elementary teachers on August 21, 1997, and a second meeting with seven secondary teachers was held on August 28, 1997.

A meeting also was held with a focus group consisting of selected elementary, middle, and secondary school administrators on July 24, 1997.

In order to provide structure for the discussion with the focus groups, the research questions were shared with the participants at the meeting.

Information from the focus groups was needed to develop sub-topics for which specific questions would be written. The following questions were

used as a stimulus for discussion and were designed to focus the groups' attention on indicators of professional growth:

1. What activities do you consider important for teacher participation in order to assist them in their professional growth?
2. What are the indicators of teacher empowerment as related to professional growth plans?
3. How does your Professional Growth Plan influence your instructional practice/planning for students?

In addition to the aforementioned discussion questions, the focus groups were asked to identify expected teacher staff development activities related to the research questions. Thus, the activities described, information

from the review of literature, and responses to the above three discussion questions formed the basis of information used to develop the initial draft of the survey instrument. A 4-point Likert Scale was used for responses on the 63-item survey instrument. The participants were provided detailed instructions with the questionnaire regarding the use of the attached NCS scan sheets.

Assignment of Values to Survey Responses

The survey results were analyzed through the assignment of numerical values to each of the responses in order to obtain Likert scale scores. Ary (1996) pointed out that in order to score the scale, the response categories must be weighted; for positively stated items the numerical values 4, 3, 2, and 1, respectively, are assigned to the response categories. The positively stated items were assigned the following weights:

Strongly Disagree -	1
Disagree -	2
Agree -	3
Strongly Agree -	4
Not Applicable -	not assigned

It is necessary to assign the numerical values in the reverse order when

unfavorable response statements are required on an item. “For unfavorable or negatively stated items the weight is reversed, because disagreement with an unfavorable statement is psychologically equivalent to agreement with a favorable statement” (Ary, 1996, p.241). The numerical values for negatively stated questions were assigned in the following manner:

Strongly Disagree -	4
Disagree -	3
Agree -	2
Strongly Agree -	1
Not Applicable -	not assigned

Survey Review and Pilot Study

It is important to have the survey instrument reviewed by individuals knowledgeable of professional growth activities and survey instruments.

Ary (1996) stated the following:

Before the final printing it is essential that the researcher test the instrument in order to identify ambiguities, misunderstandings, or other inadequacies. First, it is a good idea to ask colleagues who are familiar with the study to examine a draft of the questionnaire and give their opinions on whether the instrument will obtain the desired data and whether they see any problems that may have been overlooked. (p.456)

The directors of research and planning, staff development, and human resources from Henrico County Public Schools reviewed the survey

instrument and made recommendations for revisions. Further review of the draft instrument took place. A pilot study of the survey instrument was then conducted.

According to Ary (1996), it is very important to pilot the survey instrument to identify additional revisions that might be necessary. The questionnaire should be administered to a small group; the respondents should answer the questions one at a time and provide feedback to the researcher on any difficulties they have with items. Fortunately, another Virginia school district, Caroline County Public Schools, implemented a professional growth plan in the fall of 1997 that included options identical to those employed by the HCPGP. Permission was obtained from the Caroline County Superintendent to pilot the questionnaire with thirty teachers. The Caroline County Director of Personnel distributed the questionnaire to a select group of teachers ensuring that the four plan options were represented in the pool of teachers participating in the pilot study. An item analysis on responses for each question was conducted through the use of SAS program software; this analysis helped to identify questions with consistently ambiguous responses and provided the basis for revisions of the

questionnaire. As a result of the pilot study and collegial reviews, several revisions were made to the questionnaire, including the elimination of redundant questions as well as clarification of others. Additionally, revisions were made to ensure that the questions measured the concepts intended to be measured in the research questions.

Survey Distribution in Henrico County

Each Henrico County school has a staff development planner who assists the building level administrator and the Department of Staff Development to organize school and district-wide staff development activities. In order to reduce any administrative bias, teacher staff development planners from each school were asked to distribute the survey information, collect the packets, and forward them to the school board office. A meeting was held with the school staff development planners to discuss the distribution of the survey in their schools. All participants were informed by staff development planners that their responses would be administered so that complete confidentiality was assured. Each staff development planner was provided a list of names of individuals from their individual schools who were part of the selected sample. They were asked to provide the participants

with the furnished envelopes, which contained the survey booklets and NCS scan answer sheets. The staff development planners also were asked to request that teachers return the surveys in the sealed envelopes within a week if they chose to participate. The planners maintained a record of the envelope packets they distributed, and they were asked to contact those individuals who indicated that they would participate but had not returned their envelopes within the specified time. Teachers who chose not to participate were not subjected to any coercion. Additional teachers were asked to participate by the staff development planners if a selected teacher was no longer in a particular school location or assignment. Teachers selected as replacements were in the same school and participated in the same professional growth plan option as the individual originally selected. Unused NCS scan sheets and survey booklets were returned. Eight days after the initial survey distribution, letters were sent to staff development planners which requested that they again request that participating teachers who had not returned the survey to do so as soon as possible. If the participating teachers had misplaced the survey, the planners furnished replacement survey packets.

Data Analysis

Development of Constructs

By definition a research construct is an abstraction used to explain, interpret, and summarize observations. Such underlying themes or factors are central to the study of responses to survey items. Factors are underlying constructs accounting for covariation among a larger number of variables, frequently independent variables (Ary, 1996). Many of the items on the survey used in this study measured the same idea or theme. For example, survey items related to opportunities to participate in specific staff development activities also could be related to a factor or theme of continuous growth opportunities. Based upon prior research, professional experience, and input from focus groups, survey items were logically grouped and Exploratory Factor Analysis was applied to develop constructs.

Logical Analysis: Further Explanation

As noted above, information derived from the review of literature, professional experience, and discussions with the focus groups determined the logical groupings of the 63 survey items pursuant to the four research questions. In order to format the research questions for use in tables and

other descriptions, the following descriptors were used:

Research Question 1-	Continuous Growth
Research Question 2-	Instructional Planning
Research Question 3-	Empowerment of Teachers for Performance Analysis
Research Question 4-	Facilitation of Own Learning

Further analyses were completed using intercorrelations among items for each of the four research questions in order to determine whether the items had high inter-correlations, indicating that the items were measuring the same constructs.

Exploratory Factor Analysis

Factor analysis is “a statistical procedure for analyzing the inter-correlation among three or more measures that reduce the set to a smaller number of underlying factors” (Ary, 1996, p.568). SPSS software was employed to run an exploratory factor analysis with varimax rotation in order to assist in identifying constructs other than those included in the logical analysis.

Further analysis was conducted by calculating intercorrelations among items in the factors to determine which items showed strong relationships and which items did not. Also, an alpha reliability coefficient

was computed for the factors to determine if the items had high reliability, indicating that the items were reliable measures.

Two Factor Analysis of Variance

The data were further analyzed using two-factor analysis of variance. Analysis of variance is “an inferential statistical test used for experimental designs with more than one independent variable or more than two levels of an independent variable” (Ary, 1996, p.564). There are two primary purposes for completing analysis of variance in this study. First, it is important to determine if there were significant differences in the teachers’ views of the Professional Growth Plan with regard to the options (structured, individual, collegial, and peer observation). Second, it is important to determine if the teachers’ perceptions of their plans differ according to the school levels they teach (elementary, middle, and high). The following questions were examined using analysis of variance procedures:

- Are there significant differences in the perceptions of teachers according to the options in which they have participated? For example, do teachers in the structured option have more positive views of instructional planning compared to teachers in the collegial option?
- Are there significant differences in the perceptions of teachers on the four major dimensions of the growth plan according to their school

level? For example, do elementary teachers perceive that the plan provides more opportunities for continuous growth compared to middle school teachers?

Regression Analysis

Regression analyses were conducted for two primary purposes. First, it is important to determine teachers' overall satisfaction with the Professional Growth Plan. Second, it is important to note teachers' commitment to the profession. This is particularly important as we examine opportunities and support for professional development and the development and implementation of professional growth plans. Regression analyses help to predict the value of a dependent variable from values of independent variables (Ary, 1996).

CHAPTER IV

Findings of the Study

Profile of the Sample

A composite profile of the teachers who participated in the survey is presented in Tables 4.1 and 4.2. These data were obtained using survey responses on pages one and two of the survey booklet (Appendix A). Of the 712 surveys distributed, 574 were returned, representing a response rate of 80.6 percent. As a result of some participants' not responding to every item on the survey, the total number of responses for each item is different from the total number of respondents. As indicated in Table 4.1, 255 or 52.8 percent of the respondents were elementary teachers; 113 or 23.4 percent were middle school teachers; and 115 or 23.8 percent were high school teachers. Four hundred seventy-four teachers were female and seventy-two were male. The total years of teaching experience ranged from 0 to 35 years, with a mean of 15.1. Years of experience in Henrico County Schools ranged from 0 to 33, with a mean of 11.5. An examination of participants' total years of experience in current school assignments revealed a range of 0 to 33 years, with a mean of 8.2.

One of the primary focuses of the study was the examination of teachers' attitudes or views toward the various options of the Professional Growth Plan. The growth plan options of individuals who responded to the survey are listed below:

Structured Growth Option	149 or 27.3%
Individual Growth Option	215 or 39.4%
Collegial Growth Option	166 or 30.5%
Peer Option	15 or 2.8%
Total	545

It should be noted that 32 of the respondents did not indicate their professional growth plan options; therefore, they are not reflected in the reported percentages.

The degrees and certificates earned by teachers ranged from bachelor of arts or bachelor of science to doctorate. One hundred seventy-three or 31.9% of the teachers had earned BA or BS degrees; 116 or 21.4% had earned at least 15 hours beyond BA or BS degrees; 240 or 44.2% held master's degrees; 11 or 2% earned Ed.S (Education Specialists) or C.A.G.S. (Certificates of Advanced Graduate Studies); and 3 or 0.6% held Ed.D or Ph.D degrees.

Table 4.2 provides information about the wide range of subject areas

taught by respondents. Teachers were asked to indicate the subject that best represented the greatest proportion of their instructional days. The survey directions indicated that teachers who taught preschool, kindergarten, or grades 1-5 should mark zero; teachers in those grade levels taught more than one subject area. Those who taught in grade levels above grade 5 were asked to mark a response for the specific subject area representing the greatest proportion of their instructional day. This designation allowed differentiation between multiple subjects frequently taught by elementary teachers and the specific subject areas usually taught by middle and high school teachers. Of the teachers who responded to this item, 42.9% were elementary teachers. The second highest percentage (16.0%) was comprised of middle and secondary English teachers. The lowest percentage of responses was from family life education teachers who represented only 0.4 percent.

Table 4.1 Professional Profile of the Teacher Respondents

Characteristics	Percent of Respondents
Grade Level Elementary Middle High	52.8 (255) 23.4 (113) 23.8 (115) Total 483 Note: Percentages do not reflect the 94 respondents who did not report on this item.
Years of Experience 0-3 4-7 8-11 12-15 16-19 20-23 24-27 28-31 32-35	13.7 (79) 13.2 (76) 11.1 (64) 11.1 (64) 9.7 (56) 13.2 (76) 13.3 (77) 7.3 (42) 2.3 (13) Total 547 Note: Percentages do not reflect the 30 respondents who did not report on this item.
Professional Growth Plan Options Structured Individual Collegial Peer Option	27.3 (149) 39.4 (215) 30.5 (166) 2.8 (15) Total 545 Note: Percentages do not reflect the 32 respondents who did not report on this item.
Gender Female Male	86.8 (474) 13.2 (72) Total 546 Note: Percentages do not reflect the 30 respondents who did not report on this item.
Degrees or Certificates Earned BA/BS BA/BS +15 Hours Masters C.A.G.S./ Ed.S Ed.D/Ph.D	31.9 (173) 21.4 (116) 44.2 (240) 2.0 (11) 0.6 (3) Total 543 Note: Percentages do not reflect the 34 respondents who did not report on this item.

Table 4.2 Subject Area of Teacher Respondents

<u>Characteristics</u>	<u>Percent of Respondents</u>
Teacher Discipline	
Pre-School/ Elementary	42.9% (228)
Mathematics	9.0% (48)
Social Studies	6.2% (33)
English	16.0% (85)
Vocational/Technology	7.1% (38)
Arts	5.1% (27)
Physical Education	5.3% (28)
Family Life Education	0.4% (2)
Foreign Language	3.2% (17)
Science	4.9% (26)
Total	532 Note: Percentages do not reflect the 45 respondents who did not report on this item.

Contained in Table 4.3 is a summary of teacher respondents by their grade level and respective professional growth plan option. Elementary teachers comprised the highest percentage, 32.5 %, in the collegial growth option. Elementary teachers also had the highest percentage of participants in the structured growth option, i.e., 28.9 %. Middle school teachers had the highest percentage of respondents, 44.4 %, in the individual growth option.

Shown in Table 4.4 are the frequency and percentage of participants by degree and certificate compared to the options of the professional growth plan. Individuals with master's degrees represented the highest percentage of participation in each of the options: structured growth option, 56.9%; individual growth option, 45.5%; collegial growth option, 39.62%; and peer observation option, 46.67%. Participation in the peer option was too low to allow a meaningful analysis.

Respondents by subject taught and professional growth plan option are presented in Table 4.5. English teachers represented the highest percentage of secondary teachers participating in individual and collegial plan options, i.e., 16.50% and 25.81%, respectively. Elementary teachers represented the greatest percentage of participants in each of the professional

growth plan options: 51.39 % in structured growth, 39.32 % in individual growth, 40.65 % in collegial growth, and 53.33 % in peer observation.

Table 4.6 shows the total years of experience by professional growth plan option. Eighty-nine percent of the teachers with zero to three years of experience participated in the structured growth option. This finding is a result of the requirement that all teachers on probationary contract status be assigned to the structured growth option of the Henrico County Professional Growth Plan.

In Virginia, teachers remain on a probationary contract status until they have successfully completed three years in a school district. Additionally, teachers who have gained continuing status in Virginia and move to a new Virginia school district are on a probationary status for one year. All teachers moving to Virginia school districts from other states are placed on a probationary status for three years regardless of the number of years they may have taught in other states. Once teachers complete the probationary status, they move to continuing contract status and are allowed to participate in any of the growth plan options. Probationary teachers are allowed to participate

in more than one plan option, but one of the plans must be the structured growth option.

As indicated in Table 4.6, higher percentages of teachers whose experience ranged between 4 and 31 years participated in the individual growth option than in any other option, with one exception. The exception was represented by teachers with 16 to 19 years of experience, of whom 46.3 % participated in the collegial partnership plan. The percentage of teachers participating in the individual growth option increased as the years of experience increased. Almost 62 % of participants with 28 to 31 years of experience participated in the individual growth option, thus representing the highest percentage presented in Table 4.6. It should be noted that the individual growth option allows teachers to develop their own plans, with the approval of the principal, without the number of formal observations included in the structured growth option. Neither does it require collegial work with other teachers as specified in the collegial option.

Table 4.3 Participants by Grade Level and Professional Growth Plan Option

Level Freq./ Row%	Collegial Option	Individual Option	Peer Option	Structured Option
Elem.	81 32.53	88 35.34	8 3.21	72 28.92
Middle	34 30.63	49 44.14	1 .90	27 24.32
High	30 27.27	47 42.73	4 3.64	29 26.36

Table 4.4 Frequency and Percentage of Participants by Degree/Certificate by Professional Growth Plan Option

Freq./ Row %	BA/BS	BA/+15	Masters	CAGS	Doctorate
Struct.	53 36.44	19 13.10	68 56.90	3 2.07	2 1.38
Indiv.	65 30.81	46 21.80	96 45.50	4 1.90	0 00
Collegial	49 30.82	43 27.04	63 39.62	3 1.89	1 0.63
Peer	4 26.67	4 26.67	7 46.67	0 0.00	0 0.

Table 4.5 Participants by Subject and Professional Growth Plan Option

Freq./ Row %	0-Pre/ Elem.	Math	Soc. Stud.	Engl.	Voc./ Tech.	Arts	Phys. Ed.	Fam. Life	For. Lang.	Sci.
Struct.	74 51.39	14 9.72	7 4.86	10 6.94	11 7.64	4 2.78	7 4.85	2 1.39	6 4.17	9 6.25
Ind.	81 39.32	21 10.19	15 7.28	34 16.5	15 7.28	16 7.77	12 5.83	0 0.00	3 1.46	9 4.37
Coll.	63 40.65	12 7.74	9 5.81	40 25.81	9 5.81	6 3.87	7 4.52	0 0.00	4 2.58	5 3.23
Peer	8 53.33	0 0.00	0 0.00	0 0.00	2 13.33	0 0.00	2 13.33	0 0.00	1 6.67	2 13.33

Table 4.6 Experience and Growth Plan Option

Freq./ Row%	Structured Option	Individual Option	Collegial Option	Peer Option
0-3 years	67 89.33	5 6.67	3 4.00	0 0.00
4-7 years	33 43.22	30 39.47	12 15.79	1 1.32
8-11 years	13 20.63	26 41.27	22 34.92	2 3.17
12-15 years	8 12.5	30 46.88	24 37.50	2 3.12
16-19 years	7 12.96	22 40.74	25 46.30	0 0.00
20-23 years	7 9.47	34 45.94	30 40.54	3 4.05
24-27 years	4 5.41	34 45.95	31 41.89	5 6.76
28-31 years	2 4.76	26 61.90	13 30.95	1 2.38
31 + years	2 15.38	6 46.15	4 30.77	1 7.69

Results Related to the Development of Constructs

The development of constructs was undertaken using two procedures. First, logical groupings were developed from information included in the review of literature, recommendations from focus groups, and reliability analysis. Second, an Exploratory Factor Analysis procedure was used to develop additional factors. Additionally, the alpha reliability coefficient of items grouped under each construct was completed to determine intercorrelation and content similarity.

The following lists include survey items included under each of the four constructs as determined by the focus groups and the review of literature. The alpha reliability coefficients were computed on these groupings of the items.

Continuous Growth Factor (Research Question One)

- Item 1: My Professional Growth Plan provides me with extensive opportunities for continuous growth.
- Item 2: My Professional Growth Plan provides me with opportunities to learn new instructional strategies.
- Item 3: My Professional Growth Plan provides me with opportunities to stay abreast of current effective instructional practices.
- Item 4: My Professional Growth Plan provides opportunities for me to increase my knowledge in subjects that I teach.
- Item 5: My Professional Growth Plan has provided opportunities for me to gain information about the new Standards of Learning.

- Item 7: Staff development activities focusing on classroom management have helped me to become a better teacher.
- Item 13: Staff development activities focusing on manipulative based instruction have made me more knowledgeable in this area.
- Item 19: My principal assisted me in developing instructional goals or strategies for my Professional Growth Plan this school year.
- Item 20: My principal monitors progress toward my instructional goals through observations.
- Item 21: My principal monitors progress toward my instructional goals through individual conferences.
- Item 25: My principal has been a major influence in my professional development.
- Item 30: I find that college courses help me to grow professionally.
- Item 37: When I find something that works, I tell other teachers about it.
- Item 42: Staff development activities offered by the school division are helpful in assisting me to grow professionally.
- Item 45: I find attendance at professional educational conferences helpful in assisting me to grow professionally.
- Item 51: My self-assessment has helped me define the areas where my Professional Growth Plan can be helpful.
- Item 53: The school division provides adequate funds for me to participate in staff development activities such as courses offered by colleges.
- Item 57: I find that professional educational conferences are a waste of time.
- Item 58: I used feedback from teachers in developing my Professional Growth Plan.
- Item 60: Overall, I am satisfied with my Professional Growth Plan.
- Item 61: Availability of professional development opportunities has increased my commitment to the school system.
- Item 62: I plan to stay in this school system.
- Item 63: I plan to stay in teaching.

Instructional Planning Factor (Research Question Two)

- Item 4: My Professional Growth Plan provides opportunities for me to increase my knowledge in subjects that I teach.
- Item 5: My Professional Growth Plan has provided opportunities for me to gain information about the new Standards of Learning.
- Item 6: My Professional Growth Plan helps me to become self-directed in my planning for classroom instruction.
- Item 7: Staff development activities focusing on classroom management have helped me to become a better teacher.
- Item 8: Staff development activities related to the use of computer technology in instruction have helped me to integrate technology in my classroom.
- Item 10: As a result of staff development activities involving writing, I am providing more direct instruction in writing to my classes.
- Item 11: Staff development activities focusing on cooperative learning strategies have led me to use cooperative techniques more extensively in my classes.
- Item 12: Staff development activities focusing on differentiated instruction have been beneficial to my instruction.
- Item 13: Staff development activities focusing on manipulative based instruction have made me more knowledgeable in this area.
- Item 14: Staff development activities focusing on content area reading have improved my instruction.
- Item 15: Staff development activities related to critical thinking skills have helped me make my classroom instruction more oriented to developing critical thinking.
- Item 16: Staff development activities focusing on Socratic questioning techniques have helped me to use these strategies.
- Item 17: I have used instructional techniques presented in staff development sessions in my classes.
- Item 20: My principal monitors progress toward my instructional goals through observations.
- Item 21: My principal monitors progress toward my instructional goals through individual conferences.

- Item 22: My Professional Growth Plan assists me in developing specific classroom lesson plans.
- Item 23: My Professional Growth Plan assists me in planning lessons which have a positive influence on the achievement of my students.
- Item 27: As a result of my Professional Growth Plan, the performance of my students is improving.
- Item 28: My Professional Growth Plan assists me in gaining adequate knowledge to make better classroom instructional decisions.
- Item 29: I find college courses included in my Professional Growth Plan to be helpful in improving my classroom effectiveness.
- Item 44: I find attendance at professional educational conferences helpful in improving my classroom performance.

Empowerment of Teachers Factor (Research Question Three)

- Item 8: Staff development activities related to the use of computer technology in instruction have helped me to integrate technology in my classroom.
- Item 9: Staff development activities involving productivity software such as word processing, data base management, or grade reporting have helped me to manage my work more efficiently.
- Item 18: I have ample time to discuss classroom successes and problems with my peers.
- Item 22: My Professional Growth Plan assists me in developing specific classroom lesson plans.
- Item 23: My Professional Growth Plan assists me in planning lessons which have a positive influence on the achievement of my students.
- Item 26: Indicate the number of times you have sought the guidance and opinion of your peers in solving instructional problems.
- Item 27: As a result of my Professional Growth Plan, the performance of my students is improving.

- Item 33: My Professional Growth Plan has provided opportunities for self-assessment, leading to professional growth.
- Item 36: I am frustrated by a lack of time to try new strategies in my classroom.
- Item 40: Staff development activities offered by the school division have made me more competent in dealing with behavior and classroom management problems.
- Item 41: Staff development activities offered by the school division help me to motivate students by increasing their interest in subjects I teach.
- Item 47: I analyze my own performance by examining the performance of my students on standardized tests.
- Item 48: I analyze my own performance by listening to my principal's comments regarding his/her observations of my lessons.
- Item 49: I analyze my own performance by examining the overall behavior of students in my class.
- Item 50: I analyze my own performance by consulting with my peers.
- Item 55: I extensively analyzed student performance data to assist me in developing my Professional Growth Plan.
- Item 56: I used feedback from my principal in developing my Professional Growth Plan.
- Item 58: I used feedback from teachers in developing my Professional Growth Plan.

Facilitation of Own Learning Factor (Research Question Four)

- Item 9: Staff development activities involving productivity software such as word processing, data base management, or grade reporting have helped me to manage my work more efficiently.
- Item 18: I have ample time to discuss classroom successes and problems with my peers.
- Item 24: My principal encourages me to try new instructional strategies.
- Item 31: Indicate the number of college courses you have completed since June 15, 1997.

- Item 32: My Professional Growth Plan allows me to choose college courses.
- Item 34: I often discuss professional growth strategies with my peers.
- Item 35: Indicate the approximate number of articles in professional journals you have read since June 15, 1997.
- Item 43: Indicate the number of local staff development activities offered by this school division that you have completed since June 15, 1997, or have been scheduled for later this school year.
- Item 46: Indicate the number of professional education conferences outside Henrico County Schools you have attended since June 15, 1997, or are scheduled to attend later this year.
- Item 51: My self-assessment has helped me define the areas where my Professional Growth Plan can be helpful.
- Item 52: I had opportunities to design my own professional development activities included in my Professional Growth Plan.
- Item 53: The school division provides adequate funds for me to participate in staff development activities such as courses offered by colleges.
- Item 54: I have opportunities to develop my Professional Growth Plan based on my perception of my professional growth needs.
- Item 59: I had opportunities to review the Professional Growth Plans of teachers who teach similar subjects.
- Item 61: Availability of professional development opportunities has increased my commitment to the school system.

Alpha Reliability Coefficients of the Item Groups

An Alpha Reliability Coefficient was calculated on each of the four groups of survey items to examine the correlations of responses within each group. The Alpha Reliability Coefficient calculated on each group or factor

using SPSS software indicated moderate to very high reliabilities as shown in the table below:

		<u>Alpha</u>
Research Question 1-	Continuous Growth	.8865
Research Question 2-	Instructional Planning	.9218
Research Question 3-	Empowerment of Teachers for Performance Analysis	.7738
Research Question 4-	Facilitation of Own Learning	.6410

(A complete output of the alpha reliability analysis is included in Appendix D.)

Exploratory Factor Analysis

SPSS software was used to run an exploratory factor analysis with varimax rotation to assist in determining constructs in addition to those included in the logical analysis. When the factor analysis was run with no limitations, seventeen factors were produced with some factors consisting of two to eight survey items. Additional analyses were completed with ten and eight factors; the eight factors consisted of constructs that clearly emerged with the exception of the last factor. As a result of an extremely low alpha reliability coefficient and the inability to determine a clear theme from the survey items included in factor eight, it was eliminated. The constructs that emerged are included in the lists that follow.

1. Satisfaction with Opportunities for Growth in Instructional Planning Factor

- Item 2: My Professional Growth Plan provides me with opportunities to learn new instructional strategies.
- Item 1: My Professional Growth Plan provides me with extensive opportunities for continuous growth.
- Item 3: My Professional Growth Plan provides me with opportunities to stay abreast of current effective instructional strategies.
- Item 4: My Professional Growth Plan provides opportunities for me to increase my knowledge in subjects that I teach.
- Item 6: My Professional Growth Plan helps me to become self-directed in my planning for classroom instruction.
- Item 23: My Professional Growth Plan assists me in planning lessons which have a positive influence on the achievement of my students.
- Item 5: My Professional Growth Plan has provided opportunities for me to gain information about the new Standards of Learning.
- Item 28: My Professional Growth Plan assists me in gaining adequate knowledge to make better classroom instructional decisions.
- Item 33: My Professional Growth Plan has provided opportunities for self-assessment, leading to professional growth.
- Item 22: My Professional Growth Plan assists me in developing specific classroom lesson plans.
- Item 60: Overall, I am satisfied with my Professional Growth Plan.
- Item 27: As a result of my Professional Growth Plan, the performance of my students is improving.
- Item 52: I had opportunities to design my own professional development activities included in my Professional Growth Plan.
- Item 15: Staff development activities related to critical thinking skills have helped me make my classroom instruction more oriented to developing critical thinking.
- Item 54: I have opportunities to develop my Professional Growth Plan based on my perception of my professional growth needs.

- Item 55: I extensively analyzed student performance data to assist me in developing my Professional Growth Plan.
- Item 17: I have used instructional techniques presented in staff development sessions in my classes.
- Item 32: My Professional Growth Plan allows me to choose college courses.

2. The Role of and Interaction with the Principal Factor

- Item 25: My principal has been a major influence in my professional improvement.
- Item 19: My principal assisted me in developing instructional goals or strategies for my Professional Growth Plan this school year.
- Item 56: I used feedback from my principal in developing my Professional Growth Plan.
- Item 20: My principal monitors progress toward my instructional goals through observations.
- Item 21: My principal monitors progress toward my instructional goals through individual conferences.
- Item 24: My principal encourages me to try new instructional strategies.
- Item 48: I analyze my own performance by listening to my principal's comments regarding his/her observations of my lessons.

3. Specific Staff Development Activities Factor

- Item 40: Staff development activities offered by the school division have made me more competent in dealing with behavior and classroom management problems.
- Item 18: I have ample time to discuss classroom successes and problems with my peers.
- Item 16: Staff development activities focusing on Socratic questioning techniques have helped me to use these strategies.

- Item 41: Staff development activities offered by the school division help me to motivate students by increasing their interest in subjects I teach.
- Item 12: Staff development activities focusing on differentiated instruction have been beneficial to my instruction.
- Item 14: Staff development activities focusing on content area reading have improved my instruction.
- Item 11: Staff development activities focusing on cooperative learning strategies have led me to use cooperative techniques more extensively in my classes.
- Item 7: Staff development activities focusing on classroom management have helped me to become a better teacher.
- Item 42: Staff development activities offered by the school division are helpful in assisting me to grow professionally.

4. Increase in Knowledge Base Factor

- Item 29: I find college courses included in my Professional Growth Plan to be helpful in improving my classroom effectiveness.
- Item 30: I find that college courses help me to grow professionally.
- Item 37: When I find something that works, I tell other teachers about it.
- Item 13: Staff development activities focusing on manipulative based instruction have made me more knowledgeable in this area.
- Item 31: Indicate the number of college courses you have completed since June 15, 1997.
- Item 47: I analyze my own performance by examining the performance of my students on standardized tests.

5. Commitment to the Profession Factor

- Item 63: I plan to stay in teaching.
- Item 62: I plan to stay in this school system.

Item 53: The school division provides adequate funds for me to participate in staff development activities such as courses offered by colleges.

6. Educational Conferences Factor

Item 44: I find attendance at professional educational conferences helpful in improving my classroom performance.

Item 45: I find attendance at professional educational conferences helpful in assisting me to grow professionally.

Item 46: Indicate the number of professional educational conferences outside Henrico County Schools you have attended since June 15, 1997, or are scheduled to attend later this school year.

Item 61: Availability of professional development opportunities has increased my commitment to the school system.

Item 57: I find that professional educational conferences are a waste of my time.

7. Peer Support and Interaction Factor

Item 50: I analyze my own performance by consulting with my peers.

Item 58: I used feedback from teachers in developing my Professional Growth Plan.

Item 26: Indicate the number of times you have sought the guidance and opinion of your peers in solving instructional problems.

Item 51: My self-assessment has helped me define the areas where my Professional Growth Plan can be helpful.

Item 49: I analyze my own performance by examining the overall behavior of students in my class.

Item 34: I often discuss professional growth strategies with my peers.

Alpha Reliability Coefficient for the Eight Factors Developed from the Exploratory Factor Analysis

An Alpha Reliability Coefficient was calculated on each of the eight groups of survey items to examine the correlations of responses within each group. The results of this analysis indicate a moderate to very high correlation with all factors with the exception of the Student Achievement and Instructional Strategies factor. A summary of the analysis is presented below.

Factors	Alpha Reliability Coefficient
1. Satisfaction with opportunities for growth in instructional planning	.9309
2. The role and interaction with the principal	.8905
3. Specific staff development activities	.8371
4. Increase in knowledge base	.5616
5. Commitment to the profession	.6229
6. Educational conferences	.6768
7. Peer support and interaction	.6160
8. Student achievement and classroom instructional strategies	.1403

Items were dropped from some factors because they clearly did not fit with the factors based on the Exploratory Factor Analysis. As a result, the alpha reliability coefficient increased as indicated by calculations below:

Factor #	Initial Coefficient	Item Eliminated	Resulting Coefficient
2	.8774	#10	.8905
3	.7812	#36	.8371
5	.5660	# 8	.6229
7	.5941	# 9	.6160

Factor eight had only three items with an alpha reliability coefficient of .1403. The SPSS analysis indicated that there were no items for factor eight that could be dropped to increase substantially the coefficient. As a result of the extremely low coefficient and the inability to determine underlying themes for factor eight, this factor was not included in any further analysis. In addition, an examination of the correlation table run on all the items indicated that the three items in factor eight had a low correlation with all other items on the survey. Tables of mean scores and analysis of variance for the following seven factors can be found in Appendix B. The complete report of the Alpha Reliability Analysis is included in Appendix E.

Results Related to Two Factor Analysis of Variance

1. Continuous Growth Factor

Analysis of variance was used to determine if there were statistically significant differences among groups on perceptions of continuous growth using the professional growth plan options and school levels as independent variables. The analysis of the continuous growth grouping or factor revealed statistically significant differences among groups by school level at the .05 level with an F value of 10.903. Additionally, the analysis of variance indicated that no statistically significant differences existed among groups by growth plan option (structured, individual, or collegial). This analysis indicates that elementary teachers expressed significantly higher satisfaction with continuous growth opportunities compared to middle and secondary teachers.

The table of mean scores for the continuous growth factor indicates that elementary teacher responses had a mean score of 3.2068 for the three plan options combined, which was the highest of the three school levels (elementary, middle, and secondary). The two highest overall mean score responses were provided by elementary teachers on the structured growth plan

option, with a mean score response of 3.2205, and the collegial growth plan option, with a mean score of 3.2302. This analysis indicates that elementary teachers viewed their professional growth plans as providing opportunities for continuous growth more frequently than did middle or high school teachers. The mean scores of elementary teachers who participated in structured and collegial options suggest that they viewed their plans as providing continuous growth opportunities more frequently than did individuals who participated in any option regardless of grade level. This analysis suggests that elementary teachers perceived that their plans provided them with opportunities to stay abreast of current effective instructional practices more often than did middle or high school teachers.

2. Instructional Planning Factor

Analysis of variance on the instructional planning factor indicated that there were statistically significant differences among groups by school level at the .05 level with an F value of 15.616. The analysis indicated no statistically significant differences among groups by growth plan option. This finding suggests that elementary teachers expressed significantly higher satisfaction

with instructional planning opportunities compared to middle and high school teachers.

The table of mean scores for the instructional planning factor indicates that elementary teachers had the highest mean score response (3.1576) for the three plan options combined. The mean score response for each of the plan options (structured, individual, and collegial) at the elementary level was between 3.1 and 3.2. Mean scores for middle and secondary school teachers were 2.9507 and 2.9318, respectively.

The analysis of the instructional planning factor was very similar to that of the continuous growth option. Elementary teachers viewed all three plan options as providing opportunities for instructional planning more frequently than did middle and secondary teachers. For example, this analysis suggests that, compared to middle and high school teachers, elementary teachers more often found that their plans helped them to be more self-directed in planning for classroom instruction. There was no significant difference in how teachers viewed instructional planning with regard to plan options. The high mean score for each plan suggests that, regardless of plan option, teachers more frequently agreed that their growth plans assisted with instructional planning.

3. Teacher Empowerment for Performance Factor

Analysis of variance on performance empowerment again indicated statistically significant differences among groups by school level at the .05 level with an F value of 6.289. Unlike the facilitation of learning and instructional planning factors, the analysis indicated statistically significant differences among groups by plan option at the .05 level with an F value of 3.924. This suggest that elementary teachers indicated significantly higher satisfaction regarding their empowerment to be responsible for analyzing their own performance compared to middle and high school teachers. Also, on the whole, teachers who participated in the structured option were more satisfied with empowerment than those who participated in the individual or collegial options.

An examination of the table of mean scores for the empowerment factor shows that elementary teacher responses had a mean score of 3.0435 for the three plan options combined, which was higher than the mean score responses for teachers at the middle and high school levels. The mean scores for all plan

options at the middle and high school levels were 2.9233 and 2.9243, respectively.

The table also indicates a total mean score of 3.0535 for the structured growth option, which was the highest mean score of the three growth plan options. In comparison, the individual and collegial plan options had total mean scores of 2.9344 and 2.9948, respectively. This analysis of the teacher performance empowerment factor indicated that elementary teachers viewed their professional growth plans as providing opportunities for them to be empowered to analyze their performance more frequently than did middle or high school teachers. Additionally, the responses of teachers at all three school levels indicate that teachers viewed the structured growth plan option as providing opportunities for them to be empowered to become responsible for analyzing their performance more frequently than the individual or collegial plans.

It is important to note that all non-tenured teachers were required to participate in the structured growth option, and in most cases, those teachers had the fewest years of experience in Henrico County Public Schools. It should also be noted that 89.33 % of the teachers who participated in the

structured growth plan option had from zero to three years of experience. In comparison, only 6.67% of teachers who chose the individual growth option and 4% of those who chose the collegial option had fewer than four years of experience. Ultimately, this analysis indicates that the high mean scores or positive responses to this factor were predominantly from teachers with four or fewer years of experience. For example, a non-tenured teacher with only two years of experience would be assigned to the structured option, and in most instances, responded positively to this factor.

In summary, this analysis indicates that elementary teachers had significantly more positive perceptions of the teacher empowerment for performance factor in all three growth plan options. Additionally, the structured growth option, consisting of a high percentage of participants with four or fewer years of experience, elicited more positive responses than the individual or collegial options. Overall, the teachers' responses indicate frequent agreement that their plan options empowered them to be responsible for analyzing their performance.

4. Facilitation of Own Learning Factor

Analysis of variance on the facilitation of learning factor indicated no statistically significant differences among groups by school level at the .05 level with an F value of .216. This analysis also indicated that there was no statistically significant difference among groups by plan option at the .05 level with an F value of .122. The table of mean scores shows only slight variation beyond 2.7 for every cell. The range of mean responses for each cell was between 2.7 and 2.9, thereby suggesting that all teachers frequently agreed that their plans allowed them to facilitate their own learning.

Table 4.7

Attitudes Toward Professional Growth Plan									
	<i>--Collegial Option--</i>			<i>--Individual Option--</i>			<i>--Structured Option--</i>		
	<i>Elem</i>	<i>Middle</i>	<i>High</i>	<i>Elem</i>	<i>Middle</i>	<i>High</i>	<i>Elem</i>	<i>Middle</i>	<i>High</i>
Contin. Growth	3.230	3.031	3.083	3.174	3.038	3.009	3.22	3.088	3.07
Instruc. Plan.	3.192	2.951	2.958	3.163	2.911	2.869	3.11	3.022	3.01
Perfor. Empow.	3.049	2.930	2.922	3.009	2.867	2.864	3.078	3.018	3.02
Facili. Own Learn.	2.791	2.762	2.755	2.772	2.762	2.718	2.76	2.706	2.84

Table 4.7 focuses on teachers’ attitudes or views toward each of the primary options of the Henrico County Professional Growth Plan. The numbers in the cells represent the mean score responses by the survey participants. The mean responses are all between the 2.6 and 3.3 range which indicates that teachers frequently perceived the professional growth plans to be affecting positively their continuous professional development. It should be noted that elementary mean scores in each plan option are higher than the middle or high school mean scores. One explanation for this finding is related to the fact that teachers at the elementary level generally teach many subjects, including, e.g., reading, writing, mathematics, social studies, science, and

health; whereas, secondary teachers generally are responsible for teaching one specific content area. As a result, staff development activities related to a variety of content areas might appeal to elementary teachers while secondary teachers might seek activities related only to their narrower content focus.

An examination of the overall total mean scores indicates that the structured growth option had the highest total mean score (3.05) as compared to the individual option (2.92) and the collegial option (2.97). Of the total mean scores for the four research questions, including all three plan options, the continuous growth factor had the highest total mean score (3.10), as compared to instructional planning (3.02), performance empowerment (3.05), and facilitation of own learning (2.76). This overall analysis of total mean scores indicates that, on the whole, teachers viewed the structured plan option more favorably with regard to their Professional Growth Plans. Furthermore, the continuous growth factor was viewed more favorably than the instructional planning, performance empowerment, or facilitation of own learning factors in regard to their plans.

Seven Factors Developed from Exploratory Factor Analysis

1. Satisfaction with Opportunities for Growth in Instructional Planning

Analysis of variance on the satisfaction factor using the professional growth plan option and grade level as the independent variables was carried out. The analysis by school level indicated statistically significant differences among groups at the .05 level with an F value of 6.256. Regarding the professional growth plan option, there was a statistically significant difference among groups at the .05 level with an F value of 3.237. These results indicate that elementary school teachers expressed significantly higher satisfaction with growth opportunities compared to middle and high school teachers. Furthermore, on the whole, teachers were more satisfied with the collegial option than other options in terms of growth opportunities.

The table of mean scores for the satisfaction factor shows that the elementary teachers' responses indicated a higher degree of satisfaction with opportunities for growth in instructional planning in all professional growth plan options, as evidenced by the mean score of 3.215 for all plan options combined in elementary education. Mean scores for all plan options for middle and high school teachers were 3.088 and 3.0461, respectively. The

mean score for the plan options for all three school levels combined indicated that the collegial partnership resulted in a higher degree of satisfaction, with a mean score of 3.2123, while the individual and structured options had mean scores of 3.1431 and 3.0725, respectively. Every cell in the table had a mean score of 3.0 or greater, suggesting that teachers were frequently satisfied with their opportunities for growth in instructional planning.

2. The Role of and Interaction with the Principal

Analysis of variance completed on factor two, again using the professional growth plan option and the grade level as independent variables, indicated statistically significant differences among groups for both variables. The analysis of the grade level variable was significant with an F value of 8.900. In addition, statistically significant differences among groups for the professional growth plan option variable were indicated by an F value of 6.664. The results indicate that elementary school teachers expressed significantly higher satisfaction with the role of the principal with regard to their professional growth plans than did middle or high school teachers. Additionally, teachers, overall, were more satisfied with the collegial option than the other plan options in terms of the role of the principal. This analysis

suggests that elementary teachers who participated in the collegial option were more satisfied that they had extensive opportunities for continuous growth than were high school teachers on the structured growth option.

An examination of the table of mean scores for factor two indicates that elementary teachers experienced the highest degree of satisfaction with the role and interaction with principals with their professional growth plan options. The mean score at the elementary level for all plan options combined was 3.0885, as opposed to an mean score of 2.8172 at the middle school level and 2.8365 at the high school level. The responses indicated that elementary teachers who participated in the structured option were more frequently pleased with their plans (3.22 mean score) with regard to factor two than were those who participated in the individual (2.9916 mean score) or collegial (3.0768 mean score) options. Overall, an examination of the mean scores for all grade levels suggests that there was greater satisfaction regarding factor two with the collegial growth plan (3.2123), compared to the individual option (3.1431) or structured option (3.0725). The fact that 89.33 percent of the surveyed teachers were on the structured option and had between zero and three years of experience suggests that they could be more dependent on the

principal for input on their professional growth plans. It should be noted that the mean scores for all three levels and plans fell between 2.7 and 3.3, indicating that teachers frequently agreed that the principal's role had been beneficial with regard to the professional growth plan.

3. Specific Staff Development Activities

The analysis of variance using school levels and professional growth plan options as independent variables indicated statistically significant differences among groups with the school level variable, but not with the professional growth plan option. The analysis for the school level variable resulted in an F value of 5.411, which was significant at the .05 level. Analysis of the professional growth plan option variable yielded an F value of 2.35 which was not significant at the .05 level. This analysis indicates that elementary teachers expressed significantly higher satisfaction with specific staff development activities with regard to their professional growth plans than did middle or high school teachers. Furthermore, on the whole, there were no significant differences regarding plan options for specific staff development activities. This analysis suggests that elementary teachers more often perceived that staff development activities made them more competent in dealing with

behavior and classroom management problems than did middle or high school teachers.

The table of mean scores for the school level and professional growth plan variables for factor three indicates that elementary teachers viewed specific staff development activities as influencing their plans more frequently than did middle or high school teachers. This conclusion is based on the fact that the mean scores, including those for all three professional growth plan options, were as follows:

Elementary -	2.8328
Middle -	2.682
High -	2.6898

Again, it should be noted that the responses fell between the “disagree” (2.0) and “agree” (3.0) ranges. An examination of the overall mean scores for growth plan options, including the mean scores for all levels, suggests that there was a slightly higher mean for the structured option (2.832) than for the individual (2.707) or collegial (2.7743) option. As mentioned earlier, however, there was no statistically significant difference among groups in the plan option for factor 3.

4. Increase in Knowledge Base

Factor four consisted of survey items focusing primarily on participation in college courses. Analysis of variance on factor four using grade levels and professional growth plan options as independent variables indicated no statistically significant difference among groups at the .05 level. The school level variable had an F value of .967, and the professional growth plan option variable had an F value of .002. An examination of the table of mean scores for factor four reinforces the finding of no statistical significance among groups, with each cell consisting of a mean score of 2.6, 2.7, or 2.8. Teacher responses, regardless of plan option or school level, tended to fall between the “agree” and “disagree” ranges, with an average of 2.7816, indicating that teachers more frequently were satisfied with this factor.

5. Commitment to the Profession

Survey items included with factor five focused on teachers’ desire to stay in the profession and with the school district. It further focused on the teachers’ views of the school district’s efforts to provide resources to assist in professional development activities. Analysis of variance of factor five showed no statistically significant differences among groups by school level or

professional growth plan option. The school level variable had an F value of .663; the professional growth plan option variable had an F value of 1.364.

An examination of the mean score table for factor five shows that the mean scores for all plan options were as follows: 3.4215 for elementary, 3.3609 for middle, and 3.3836 for high. These averages indicate frequent responses between “agree” and “strongly agree” and suggest that teachers were committed to teaching in the profession and the school system. The mean scores of the plan options (3.3373 for structured, 3.4149 for individual, and 3.4306 for collegial) suggest that teachers were committed to the profession regardless of the plan option or school level. This finding suggests that elementary and middle school teachers planned to stay in teaching regardless of the plan option in which they participated.

6. Educational Conferences

Teachers in Virginia may receive relicensure points for attendance at professional conference. As a result, they attend conferences and include them as a part of their professional growth opportunities. Analysis of variance on factor six, including school levels and professional growth plan options as independent variables, indicated no statistically significant differences among

groups at the .05 level regarding either variable. The school level variable had an F value of 2.082, and the professional growth plan option had an F value of .938. For example, this suggests that elementary and high school teachers were likely to agree that they found attendance at professional educational conferences to be helpful in improving their classroom performance.

The table of mean scores for factor six indicates that elementary teachers on the structured growth plan option responded more frequently in agreement with the value of educational conferences construct than did teachers at any other grade level or plan option; however, there was no significant difference between any of the responses by school level or plan option. The mean scores for all cells fell between 2.7 and 3.1, suggesting that responses were predominantly in the “agree” range for the educational conference factor.

7. Peer Support and Interaction

Teachers are encouraged to get input from peers in developing the self evaluation component of the professional growth plan. The collegial partnership and peer observation plans require teachers to share ideas and strategies throughout the development and implementation of the plan.

Analysis of variance on factor seven using school levels and professional growth plan options as the independent variables indicated that there was a statistically significant difference for the plan option variable at the .05 level, but not for the school level variable. The school level variable had an F value of 1.335. The plan option variable had an F value of 3.724 and a significance of .025. This analysis indicates that, on the whole, teachers were more satisfied with the structured and collegial options than with the individual option, regardless of their school level, as related to peer support and interaction. For example, this finding suggests that middle and high school teachers who participated in the structured and collegial options analyzed their performance by consulting with peers more frequently than did individuals who participated in the structured option.

An examination of the table of mean scores for factor seven shows that the mean score including responses for all school levels combined was highest for the structured option (3.1318), followed by the collegial option (3.1301), and lowest for the individual option (2.9951). Teachers on the structured growth plan at the elementary level (3.1163) and high school level (3.0434) had the highest mean scores for all plan options. Also, with the exception of

teachers' responses on the individual option at the middle school level (2.9293) and high school level (2.9932), all mean score responses were above 3.0, between the "agree" and "strongly agree" ranges, thereby suggesting that teachers generally responded more positively regarding peer support and interaction.

Teachers' Satisfaction and Commitment - Regression Analysis

Satisfaction

The Satisfaction with Opportunities for Growth in Instructional Planning factor was identified as a dependent variable with each of the six remaining factors as independent variables. By the end of step six, all six factors had been included in the regression equation with a multiple R of .67534 and an F value of 78.86584 at the significance level of .000. The R Square value was .45609 which indicates that 45% of the variance in the Satisfaction with Growth Opportunities is explained by the six factors.

An examination of the Beta (standardized regression) coefficients indicates that, of the six factors, specific staff development activities contributed the most and educational conferences the least to teachers' satisfaction. The factors are listed below in order of the degree of satisfaction.

Factors	T	B	Sig.
3. Specific staff development activities	7.784	.284	.0000
2. Role of and interaction with principal	5.871	.202	.0000
5. Commitment to the profession	5.379	.180	.0000
4. Increase in knowledge base	4.639	.160	.0000
7. Peer support and interaction	4.555	.158	.0000
6. Educational conferences	2.475	.081	.0136
Constant	1.901		.0579

This analysis suggests that specific staff development activities and the role of principal were the best predictors of satisfaction with professional growth plans. However, the school district devotes significant resources to the other factors. For example, the school district allocates \$700 per year for each teacher to take colleges course or attend educational conferences which support their professional growth plans. College courses are the primary focus of survey items included in the Increase in Knowledge Base factor. Additionally, teachers are encouraged to share ideas with their peers in a variety of ways including interdisciplinary training and planning activities, grade level sessions, and mentor programs. In order to support these professional development activities, the district calendar includes instructional training days throughout the school year. Regardless of the time, funds, and effort put forth to provide these activities, the district must realize that teachers

are more satisfied with specific staff development activities and the role of the principal as they relate to their professional development. As a result, these two factors must be primary considerations in developing and enhancing professional development opportunities.

Commitment

Commitment to the Profession was identified as another dependent variable with each of the six remaining factors as independent variables. Only three factors were included in the regression equation before the default criteria were met for entering and removing variables. At the end of the third step, the multiple R was .40682 with an F value of 36.55808 at the significance level of .0000. The R Square Factor of .16550 indicates that 17% of the variance in commitment is explained by the three factors. Furthermore, the standardized regression coefficients indicate that, of the three factors, satisfaction for growth opportunities contribute most and educational conferences contribute least to the teachers' commitment to stay in teaching. The factors are listed below in the order of contribution.

Factors	T	B	Sig.
1. Satisfaction for growth opportunities	6.496	.303	.0000

3. Specific staff development activities	2.526	.115	.0118
6. Educational conferences	2.007	.080	.0452
Constant	11.097		.0000

A fundamental reason for professional growth plans is to promote professional development which is supported and encouraged through specific staff development activities. Teacher commitment to the profession is influenced significantly by the aforementioned factors, and as a result, they should be considered high priority in the development of each Professional Growth Plan. As principals review plans with teachers, they should look for evidence of and suggest activities that will provide growth opportunities, including specific staff development activities.

The full report of the regression procedures related to teacher satisfaction and commitment can be found in Appendix F.

Summary

Chapter IV reported the development of constructs including logical and Exploratory Analysis procedures. Analysis of Variance procedures were run and interpreted on all factors examined. A summary, discussion, and recommendations of the study are presented in Chapter V.

CHAPTER V

Summary of Findings, Conclusions, and Recommendations for Further Study

Summary

According to Stiggins and Duke (1988), teacher evaluation systems should support the professional development of teachers and provide information on their strengths and weaknesses. Information regarding strengths and weaknesses should form the basis for staff development activities and personnel management decisions, including dismissal and promotion. As indicated in the 1983 report by the National Commission on Excellence in Education entitled, A Nation at Risk: The Imperative for Educational Reform, there has been increased demand for accountability at the local, state, and national levels for improved public schools; this call for accountability also provides rationale for the study of teacher evaluation systems.

Traditional teacher evaluation systems incorporate ranking and rating processes by administrators who observe teachers for a specified period of time. The observation usually is followed by a conference with the teacher in

which the administrator ranks the teacher on specific performance categories approved by the school board. At the end of the school year, a final review which provides the teacher with the administrator's final ranking of teacher competencies for the school year is completed and usually shared in a conference with the teacher. A review of literature indicates that such teacher evaluation systems have led neither to professional development activities nor the professional development of teachers. According to Levine (1979), the entire field of teacher evaluation literature suffers from a surplus of opinions and a shortage of empirical research which supports the reliability, validity, or positive effects of most techniques used in teacher evaluations.

Teacher evaluation systems that utilize professional development as a means for improvement became increasingly prevalent in the 1990s. Such systems allow teachers to make decisions regarding the development of plans for improvement and frequently allow for input from peers as well as principals. Duke (1993) found that empowering teachers to make decisions about their own professional development was evident in teacher evaluation systems that focused on professional development based on individual goals, thereby permitting teachers to grow in meaningful ways. Karst (1987) found

that the successes of professional development programs depended heavily on the teachers' ability to have input on staff development activities that would have an impact on their attitudes and skills. The Henrico County Public Schools Professional Growth Plan, implemented in 1995, is a growth oriented evaluation system that was designed to provide four plan options to assist teachers in determining their strengths and weaknesses and in targeting professional development activities.

The purpose of this study is to examine the differences in the views of teachers under the four different options (individual, structured, collegial, and peer observation) of the Henrico County Professional Growth Plan. A summary of the findings, conclusions, and implications for future research are presented.

The sample of this study consisted of teachers from 58 schools (39 elementary schools, 9 middle schools, and 10 high schools). From the total population of 2,443 teachers, 712 were selected for participation, based on an equal number of teachers from each of the three primary Professional Growth Plan options (structured growth, individual growth, and collegial growth). For each of the primary options, a proportionate sample of teachers was drawn

from each level, i.e., elementary (kindergarten through grade five), middle (grades six through eight), and secondary (grades nine through twelve), with the sample proportion being equal to the proportion of the total group. Within each of the plan options identified at each level, the SAS software system random number function was used to select randomly the percentage of teachers needed. The actual sample consisted of 574 teachers who returned the completed survey instrument used in the analysis; this number represented a response rate of 80.6 percent.

The primary source of data collection was a survey (Appendix A) developed from information provided by teacher and administrator focus groups and literature review. Field tests of the survey, which were completed in Caroline County Public Schools in Virginia, resulted in revisions. Survey responses were recorded on scan answer sheets and analyzed using SAS.

The summary of findings for the major factors considered in the study follows. The four research questions guided the study. On the whole, teachers' responses indicated that they were satisfied with the HCPGP. For each of the factors examined, teachers generally responded in the "agree" or "strongly agree" range, as indicated by the mean scores.

Continuous Growth Opportunities

The analyses indicated that there were no significant differences in teachers' views of the professional growth plan options in providing satisfaction with opportunities for continuous growth. The mean scores, however, were slightly higher for the structured and collegial options than for the individual option. In fact, the mean scores for the collegial and structured options were almost identical.

Teachers at the elementary level expressed significantly higher satisfaction with continuous growth opportunities than did middle and high school teachers. In fact, throughout the analysis of the different factors, elementary teachers nearly always responded more favorably than middle or secondary teachers. In general, elementary teachers are assigned to teach many subjects, including, e.g., reading, writing, mathematics, social studies, science, and health, a situation which requires them to focus attention on professional development opportunities to support their understanding and integration of different subject areas. Elementary teachers also are challenged with developmental concerns related to how children learn at different ages. It can

be hypothesized that these factors contribute to the need for a wide array of staff development activities that many elementary teachers welcome.

Secondary teachers generally focus more on specific subject content, and in many cases teach only one subject. As a result, they might have little desire to participate in staff development opportunities beyond their content specialties.

Instructional Planning

The analyses of the instructional planning factor indicated no significant differences among teachers' views, regardless of their professional growth plan option. The mean scores on the whole, however, showed that teachers generally agreed that their professional growth plans assisted them with instructional planning, regardless of the plan option. Teachers at the elementary level expressed significantly higher satisfaction with instructional planning than middle and high school teachers. It is important to note that elementary teachers frequently have several planning preparations due to the number of different subjects taught, particularly in a self-contained classroom. Middle and high school teachers might have many different classes with different abilities, but the overall content is often within the same subject. In

fact, they frequently are endorsed to teach only a few subjects at the secondary level. The differences in the necessary subject preparations among elementary, middle, and high school are substantial enough to suggest that elementary teachers would be more receptive to professional development activities to support the many instructional preparations for which they are responsible.

The seven factors developed from Exploratory Factor Analysis, including satisfaction with opportunities for growth in instructional planning, the role and interaction with the principal, increase in knowledge base, commitment to the profession, input provided by peers and the principal, instructional conferences, and specific staff development activities, all enhance the opportunities for teachers to be successful in teaching and for being responsible for their own professional development. These factors support both the continuous growth of teachers and their instructional planning. Findings suggest that elementary teachers were more satisfied with growth opportunities than were middle or high school teachers. Further, teachers, overall, were more satisfied with the collegial option than with other options in terms of growth opportunities. Teachers in the collegial option have opportunities to plan together, share ideas, and learn from their peers.

Approximately a third (32.5 percent) of the teachers who participated in the collegial option were elementary school teachers and approximately a third (34 percent) were middle school teachers. Elementary teachers frequently plan in grade level teams and team teach or share teaching and planning responsibilities for more than one class of students. The middle school concept focuses on team teaching, and teacher schedules are frequently arranged to allow teachers to have common planning times. As a result of the teaming possibilities at both the elementary and middle school levels, it can be hypothesized that the collegial option is a viable plan to enhance professional development and instructional planning for groups of teachers serving the same students.

Analysis of the Role of and Interaction with the Principal factor revealed that elementary teachers, compared to middle and high school teachers, expressed significantly higher satisfaction with the role of the principal with regard to their professional growth plans. Teachers were more satisfied with the collegial option compared to the individual and structured options.

Regardless of grade level teaching responsibilities, the principal must review and ultimately approve professional development plans. In this study,

the principal's role was viewed more favorably at the elementary level. On the whole, elementary schools in Henrico County are smaller than the middle and high schools, thereby allowing teachers more contact with the principal or, in many cases, the assistant principals. Principals are encouraged by the superintendent to visit classes each day and provide frequent feedback regarding instruction and classroom management. In the smaller environment of elementary schools, with enrollments ranging from 251 to 764, daily classroom visitations by principals are routine. This fact suggests that teachers are able to seek advice regularly from the principal, as well as their peers, regarding instructional planning and professional development activities. In larger middle and secondary schools, with enrollments ranging from 700 to 1,600 students, principals are less likely to visit each classroom as frequently, thereby creating fewer opportunities to discuss instructional planning and professional development activities.

The Specific Staff Development Activities play an essential part in the support of continuous growth and instructional planning. Although no significant differences were found by plan option regarding specific staff development activities, elementary teachers did express significantly higher

satisfaction with specific staff development activities as related to their professional growth plans.

Specific staff development activities offered by the school district on topics such as computers as instructional tools, critical thinking skills, and cooperative learning, are tied directly to the district curriculum and the Virginia Standards of Learning. They are usually taught by teachers and administrators in the school district. These circumstances may provide motivation for teachers to include these activities more frequently than college courses in their professional growth plans.

The Increase in Knowledge Base factor developed through exploratory analysis consisted of survey questions related to college courses often used for teacher license renewal. Teachers also take college courses to receive credit toward advanced degrees and to gain additional teacher certifications. There was no significant difference in the views of teachers related to their participation in college courses, regardless of their professional growth plan option or their school level. On the whole, teachers were satisfied that their plans provided opportunities to increase their knowledge base, as indicated by mean scores in the “agree” range.

When teachers take college courses for license renewal or to work toward advanced degrees, they may not necessarily link the courses to their professional development plans. The specific purpose may be to maintain a teaching license or receive a postgraduate degree to create opportunities for promotion and/or salary increases. Teachers in most school districts in Virginia are eligible for higher salaries upon completion of postgraduate degrees. Although Henrico County allocates \$700 per year for each teacher to take courses and/or attend conferences, there was greater satisfaction expressed for specific staff development activities, as indicated by the mean scores for the two factors.

Continuous growth of teachers is further emphasized in the Commitment to the Profession factor. This factor consisted of survey items focusing on teachers' views of the district's efforts to provide resources to assist in professional development activities, as well as their desire to stay in the profession. While there were no significant differences in the views of teachers with regard to commitment, the mean scores indicated that teachers did "agree" or "strongly agree" that they were committed to the profession. Regardless of the professional growth plan option selected or the school level

taught, teachers more frequently responded positively to items related to staying in the profession and the school system.

As mentioned previously, the district allocates resources for numerous professional development activities. These include a Summer Institute, through which teachers are paid to participate in workshops presented by teachers and administrators; college courses leading to postgraduate degrees, offered each semester; tuition reimbursement for college courses; stipends for conferences; and staff development days dedicated to specific training initiatives planned throughout the district calendar. Educational conferences offer teachers an excellent opportunity to learn from educational leaders and to exchange ideas with fellow teachers. Upon returning from conferences, teachers frequently are asked to share with staff members ideas that might support school improvement plans or biennial school plans, which are two-year plans that include the major goals and strategies of the school. Teachers may also receive recertification points toward license renewal for conference attendance.

The Educational Conference factor revealed no significant difference in the views of teachers regardless of the professional growth plan option or the

school level with which they were associated. Overall, the mean scores indicated that teachers believed educational conferences were beneficial as they related to their professional growth plans. Elementary teachers on the structured growth plan option indicated the greatest satisfaction with educational conferences. Teachers on the structured growth plan usually had from zero to three years of experience, a finding which may imply that they had not had as many opportunities to attend educational conferences as teachers with more years of experience. This suggests that new teachers might value conference experiences more than experienced teachers because of their relatively few opportunities to learn from experts and to share with peers.

As indicated in the regression analysis, educational conferences appeared to be the factor least related to satisfaction with professional growth plans. The Henrico school district pays for most teacher conference expenses through the \$700 per year allocated to teachers for college courses and conferences. This finding implies that perhaps the school district should consider allocating these resource to specific staff development activities, a factor that created greater satisfaction in the view of teachers.

Peer relationships among teachers represent an essential aspect of professional development. Boyd (1996) pointed out that teachers should be encouraged to “break out of their isolation” and create a “community of learners.” This type of activity is essential for teachers who participate in the collegial option of the professional growth plan. Peer Support and Interaction is a factor that supports continuous growth and instructional planning. On the whole, teachers who participated in the collegial and structured options responded more positively regarding Peer Support and Interaction than those who participated in the individual option, regardless of school level. The collegial option by design requires teachers to work together with peers which is not always the case with the individual option. Showers and Joyce (1996) have observed that collaborative planning is essential if teachers are to share responsibilities for developing new units and organizing them in proper sequences. It should also be noted that first year teachers are required to participate in the structured option and are assigned a mentor in Henrico County, thereby creating additional opportunities for peer support and interaction.

As factors that support continuous growth are examined, it is important to note that Specific Staff Development Activities predicted the most satisfaction with the professional growth plan. Specific staff development activities are designed around the needs of teachers within the district as well as district-wide initiatives such as the implementation of new textbooks. One of the primary factors included in successful professional development programs is the teacher's ability to have input about staff development activities that will have an impact on their skills (Duke, 1993; Karst, 1987). In Henrico, a minimum of one teacher per school has the specific responsibility of staff development planning. Those teachers collect ideas for staff development from teachers, provide leadership in the development and implementation of school based staff development plans, and work with the Office of Staff Development to develop district-wide staff development offerings. In most cases, the staff development activities are planned and led by teachers and administrators. Staff development activities offered in the Summer Institute provide teachers the opportunity to select from over 200 offerings. The fact that teachers are provided financial resources such as

payment for participation in the Summer Institute may create high satisfaction for many individuals.

Teacher Empowerment for Performance

Empowering teachers to analyze their own performance is a primary goal of the Henrico County Professional Growth Plan. Duke (1993) emphasized the importance of empowering teachers to plan their own professional development based on individual needs, permitting teachers to grow in meaningful ways. The analysis of the Teacher Empowerment for Performance factor indicated that the views of elementary teachers on this factor were significantly more positive than the views of middle and high school teachers. It was also interesting to note that teachers who participated in the structured option were more satisfied that their plans allowed them to be empowered to analyze their own performance than were teachers who participated in the collegial or individual options. Although the structured option allows teachers to develop plans and specific strategies for improvement, it requires the principal to observe teachers a minimum of four times formally. Additionally, teachers are observed by the principal informally throughout the school year. It seems a bit unusual that individuals

participating in this option viewed themselves as being empowered more frequently than did teachers who participated in the individual and collegial options, which do not require as many formal observations by the principal.

Facilitation of Own Learning

An examination of the mean scores included in Facilitation of Own Learning indicated that most respondents thought their plans allowed them opportunities to facilitate their own learning; however, the mean scores were lower than those for the other factors included in the study, regardless of the plan option or school level. There were no significant differences in the views of teachers by school level or plan option regarding their opportunities to facilitate their own learning. This analysis, along with the relatively low mean scores, implies that teachers had relatively lower perceptions of the freedom to facilitate their own learning.

The recent emphasis placed on student performance for school accreditation included in the Virginia Standards of Learning encourages principals and teachers to develop goals targeted for improvement on Standards of Learning tests. Because of this, it is likely that teachers were limited in their abilities to target goals they might have chosen for themselves

if such accountability factors had not been in place. Additionally, the fact that principals must approve each teacher's professional growth plan implies a level of administrative control over the plan.

Implications

In this section, suggestions for revisions and implementation of professional growth plans are presented. Determining how professional growth plans will ultimately improve the professional development of teachers and their instructional planning is more important than the selection of the plan option. It is important to realize that individual schools are being held accountable for the successful implementation of the Virginia Standards of Learning, and that school accreditation will depend on student performance on Standards of Learning tests. The planning and implementation of professional growth plans in lieu of traditional evaluations cannot be done without consideration of the influence that such plans might have on instructional planning. Specific suggestions for improvement are listed below:

1. The fact that few teachers participate in the peer observation plan implies that it should be eliminated. This option is duplicated by the district's peer mentor program that has many of the same strategies.

New teachers are assigned a mentor, whether or not they choose the peer observation option.

2. All professional development plans should be examined by individual schools to determine staff development plans to be included in the school biennial plan or school improvement plan. The Office of Staff Development should examine school biennial plans or school improvement plans to determine consistent staff development activities that can be offered centrally, thus reducing the expense and time of each school's duplicating training efforts.
3. Requiring teachers who do not have tenure in the school district to participate in the structured option should continue; however, they should be encouraged to participate in the collegial option with peers from whom they can learn, as well. The analyses indicated that teachers with fewer than four years of experience, on the structured option, valued peer support and interaction, which are provided in the collegial option.
4. The Professional Growth Plan should be evaluated annually to ensure that it continues to meet the changing needs of teachers as new

challenges emerge. As an example, recent revisions to the Virginia Standards of Learning have major implications for future school accreditation. These implications will obviously influence the opinions of administrators who must approve teacher professional growth plans.

5. The findings of this study suggest that teachers value the interaction and support of their peers. They should have opportunities to view the professional development plans of teachers from other schools. This practice would provide teachers opportunities to see the team work involved in collegial plans.
6. Teachers viewed individual staff development activities with more satisfaction than they viewed college courses and conferences. The district should consider allowing teachers to use their \$700 allocation for college courses and conferences to travel to schools, perhaps in other school districts, to observe and participate in their local staff development activities.
7. Focus group discussions including teachers on each of the plan options should be considered. This would allow teachers to evaluate for themselves the different plan options.

8. In developing professional development plans, the principal should encourage teachers who are working on postgraduate degrees to include those courses in their professional growth plans. They should indicate, where possible, how their studies impact their instructional planning.
9. Teachers in middle and secondary schools, who have more than ten years of experience, usually chose to participate in the individual option. Opportunities should be provided to allow them to review and discuss plans with individuals who participated in the collegial plan option.

Recommendations for Further Study

1. A case study approach employing qualitative methods should be used to examine the Professional Growth Plan. Such a study lends itself to a more in depth study of fewer teachers. The study could include a teacher on each of the plans from each school level (elementary, middle and high).
2. Elementary teachers, in general, were more positive about professional growth plans than were middle or high school teachers. It is recommended that an investigation with a similar sample be completed

to determine why differences exist among teachers at different levels regarding their satisfaction with staff development activities.

3. Elementary teachers, on the whole, were very positive in their responses to all factors examined in this study. It is recommended that a study be completed at the elementary level to determine specific professional growth activities that might have created significantly higher satisfaction.
4. A study of high school teachers should be conducted to determine specific staff development activities that are beneficial beyond specific content area training.
5. A study to determine ways that the current reform and accountability issues have influenced professional growth opportunities in other school districts would be helpful.
6. Replicating this study and including a qualitative component, including interviews of teachers on each plan option and school level, would provide valuable data.
7. A study of the perceptions of administrators of the Professional Growth Plan would provide a different but important perspective. A comparison

of teachers' views with those of administrators would be beneficial and interesting.

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Appendix A. Survey Instrument

Dear Colleague,

The issue of professional development is very important in our school division. Educators throughout the state are interested in the professional development of employees and the comparison between different professional development plans.

The enclosed survey is being conducted to gather data about teacher evaluation options of the Henrico County Professional Growth Plan (Structured Growth Plan, Individual Growth Plan, Peer Observation Plan, and Collegial Partnership Plan). This research project is not an official function of the school system. Participation is both completely voluntary and confidential. Your opinions and perceptions will be very valuable in the evaluation and improvement of the Professional Growth Plan.

I hope that you will take the time to fill out the survey and return it to your school staff development planner. An envelope which can be sealed has been provided for you. Your school staff development planner will forward the surveys to me once they have been completed.

Please know that your participation is appreciated.

Sincerely,

Lyle E. Evans

TEACHER SURVEY INSTRUMENT

DIRECTIONS: Please answer in pencil each question in the corresponding space on the enclosed answer sheet. Your responses to this survey are anonymous. Do not put your name on this survey. Mark **M or F** in the column labeled **SEX**.

On the accompanying scan sheet under the heading **GRADE OR EDUC** mark the circle that indicates the grade level you currently teach. Mark circle 0 for grades pre-kindergarten or kindergarten. If you teach more than one grade, mark the grade that represents the greatest proportion of your time.

Under the heading **IDENTIFICATION NUMBER** mark your answers for the next four questions.

Mark in **columns A and B** the number of years of experience you have in your **teaching career** including this school year. If your experience is a one digit number, use column B only.

Mark in **columns C and D** the number of years of teaching experience you have in this **school district** including this school year. If your experience is a one digit number, use column D only.

Mark in **columns E and F** the number of years of teaching experience you have in your **current school** including this school year. If your experience is a one digit number, use column F only.

Mark in **column G** the circle that best describes your highest earned degree.

0. BA/BS Degree
1. BA/BS Degree + 15 semester hours
2. Master's Degree
3. Educational Specialist Certificate
4. Doctorate

Under the heading **SPECIAL CODES** use **column K** to indicate the subject that best represents the greatest proportion of your instructional day.

0. Subjects in Grades Preschool, Kindergarten, 1, 2, 3, 4, or 5
1. Mathematics
2. Social Studies/History
3. English/Language Arts
4. Vocational/Technical Education
5. Fine Arts
6. Physical Education/Health
7. Family Life Education
8. Foreign Language
9. Science

Under heading **SPECIAL CODES** use **column L** to indicate your current Professional Growth Plan option.

- 0. Structured Growth Plan
- 1. Individual Growth Plan
- 2. Collegial Partnership Plan
- 3. Peer Development Plan

MANY EXPERIENCES MAY HAVE ASSISTED YOU IN COMPLETING YOUR PROFESSIONAL GROWTH PLAN ALTHOUGH THEY WERE NOT INCLUDED IN YOUR ORIGINAL PLAN STRATEGIES. PLEASE RESPOND TO THE FOLLOWING QUESTIONS USING ALL EXPERIENCES THAT MAY HAVE HAD AN INFLUENCE ON YOUR CHOICE OF PLAN DURING THIS SCHOOL YEAR. FOR EACH STATEMENT BELOW, DECIDE WHICH OF THE FOLLOWING ANSWERS BEST APPLIES TO YOU FOR THE PROFESSIONAL GROWTH PLAN YOU SELECTED. PLEASE MARK YOUR ANSWERS ON THE ANSWER SHEET FOR EACH CORRESPONDING QUESTION.

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A	B	C	D	E
	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
1. My Professional Growth Plan provides me with extensive opportunities for continuous growth.	A	B	C	D	E
The following three items are related to opportunities you may have had for continuous growth.					
2. My Professional Growth Plan provides me with opportunities to learn new instructional strategies.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
3. My Professional Growth Plan provides me with opportunities to stay abreast of current effective instructional practices.	A	B	C	D	E
4. My Professional Growth Plan provides opportunities for me to increase my knowledge in subjects that I teach.	A	B	C	D	E
5. My Professional Growth Plan has provided opportunities for me to gain information about the new Standards of Learning.	A	B	C	D	E
6. My Professional Growth Plan helps me to become self-directed in my planning for classroom instruction.	A	B	C	D	E
7. Staff development activities focusing on classroom management have helped me to become a better teacher.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
8. Staff development activities related to the use of computer technology in instruction have helped me to integrate technology in my classroom.	A	B	C	D	E
9. Staff development activities involving productivity software such as word processing, data base management, or grade reporting have helped me to manage my work more efficiently.	A	B	C	D	E
10. As a result of staff development activities involving writing, I am providing more direct instruction in writing to my classes.	A	B	C	D	E
11. Staff development activities focusing on cooperative learning strategies have led me to use cooperative techniques more extensively in my classes.	A	B	C	D	E
12. Staff development activities focusing on differentiated instruction have been beneficial to my instruction.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
13. Staff development activities focusing on manipulative based instruction have made me more knowledgeable in this area.	A	B	C	D	E
14. Staff development activities focusing on content area reading have improved my instruction.	A	B	C	D	E
15. Staff development activities related to critical thinking skills have helped me make my classroom instruction more oriented to developing critical thinking.	A	B	C	D	E
16. Staff development activities focusing on Socratic questioning techniques have helped me to use these strategies.	A	B	C	D	E
17. I have used instructional techniques presented in staff development sessions in my classes.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
18. I have ample time to discuss classroom successes and problems with my peers.	A	B	C	D	E
19. My principal assisted me in developing instructional goals or strategies for my Professional Growth Plan this school year.	A	B	C	D	E
20. My principal monitors progress toward my instructional goals through observations.	A	B	C	D	E
21. My principal monitors progress toward my instructional goals through individual conferences.	A	B	C	D	E
22. My Professional Growth Plan assists me in developing specific classroom lesson plans.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
23. My Professional Growth Plan assists me in planning lessons which have a positive influence on the achievement of my students.	A	B	C	D	E
24. My principal encourages me to try new instructional strategies.	A	B	C	D	E
25. My principal has been a major influence in my professional improvement.	A	B	C	D	E
26. Indicate the number of times you have sought the guidance and opinion of your peers in solving instructional problems.	A 0-3	B 4-7	C 8-11	D 12-15	E 16 or more
27. As a result of my Professional Growth Plan, the performance of my students is improving.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
28. My professional Growth Plan assists me in gaining adequate knowledge to make better classroom instructional decisions.	A	B	C	D	E
29. I find college courses included in my Professional Growth Plan to be helpful in improving my classroom effectiveness.	A	B	C	D	E
30. I find that college courses help me to grow professionally.	A	B	C	D	E
31. Indicate the number of college courses you have completed since June 15, 1997.	A 0	B 1	C 2	D 3	E 4 or more
32. My Professional Growth Plan allows me to choose college courses.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
33. My professional Growth Plan has provided opportunities for self-assessment, leading to professional growth.	A	B	C	D	E
34. I often discuss professional growth strategies with my peers.	A	B	C	D	E
35. Indicate the approximate number of articles in professional journals you have read since June 15, 1997.	A 0-5	B 6-11	C 12-17	D 18-23	E 23 or more
36. I am frustrated by a lack of time to try new strategies in my classroom.	A	B	C	D	E
37. When I find something that works, I tell other teachers about it.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
38. Mark your first choice of the most beneficial time for staff development activities to be offered.	A Release time during the school day.	B After school	C Teacher training/ staff development days included in the calendar during the regular school year. (Students are not scheduled to attend.)	D During the summer months when regular school is not in session.	
39. Mark your second choice of the most beneficial time for staff development activities to be offered.	A Release time during the school day.	B After school	C Teacher training/ staff development days included in the calendar during the regular school year. (Students are not scheduled to attend.)	D During the summer months when regular school is not in session.	

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
40. Staff development activities offered by the school division have made me more competent in dealing with behavior and classroom management problems.	A	B	C	D	E
41. Staff development activities offered by the school division help me to motivate students by increasing their interest in subjects I teach.	A	B	C	D	E
42. Staff development activities offered by the school division are helpful in assisting me to grow professionally.	A	B	C	D	E
43. Indicate the number of local staff development activities offered by this school division that you have completed since June 15, 1997, or have been scheduled for later this school year.	A 0-2	B 3-4	C 5-6	D 7-8	E 9 or more
44. I find attendance at professional educational conferences helpful in improving my classroom performance.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
45. I find attendance at professional educational conferences helpful in assisting me to grow professionally.	A	B	C	D	E
46. Indicate the number of professional education conferences outside Henrico County Schools you have attended since June 15, 1997, or are scheduled to attend later this school year.	A 0	B 1	C 2	D 3	E 4 or more
The next four items refer to ways that your Professional Growth Plan may empower you to be responsible for your own performance.					
47. I analyze my own performance by examining the performance of my students on standardized tests.	A	B	C	D	E
48. I analyze my own performance by listening to my principal's comments regarding his/her observations of my lessons.	A	B	C	D	E
49. I analyze my own performance by examining the overall behavior of students in my class.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
50. I analyze my own performance by consulting with my peers.	A	B	C	D	E
51. My self-assessment has helped me define the areas where my Professional Growth Plan can be helpful.	A	B	C	D	E
52. I had opportunities to design my own professional development activities included in my Professional Growth Plan.	A	B	C	D	E
53. The school division provides adequate funds for me to participate in staff development activities such as courses offered by colleges.	A	B	C	D	E
54. I have opportunities to develop my Professional Growth Plan based on my perception of my professional growth needs.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM.

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
55. I extensively analyzed student performance data to assist me in developing my Professional Growth Plan.	A	B	C	D	E
56. I used feedback from my principal in developing my Professional Growth Plan.	A	B	C	D	E
57. I find that professional educational conferences are a waste of my time.	A	B	C	D	E
58. I used feedback from teachers in developing my Professional Growth Plan.	A	B	C	D	E
59. I had opportunities to review the Professional Growth Plans of teachers who teach similar subjects.	A	B	C	D	E

UNLESS INDICATED OTHERWISE, CHOOSE ONE OF THE FOLLOWING FOR EACH ITEM

	A Strongly Disagree	B Disagree	C Agree	D Strongly Agree	E N/A
60. Overall, I am satisfied with my Professional Growth Plan.	A	B	C	D	E
61. Availability of professional development opportunities has increased my commitment to the school system.	A	B	C	D	E
62. I plan to stay in this school system.	A	B	C	D	E
63. I plan to stay in teaching.	A	B	C	D	E

Appendix B. Factor Analysis -Four Factors - Analysis of Variance and Mean Score Tables

Factor 1 of 4 - Continuous Growth

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	3.2205	3.0883	3.0703	3.1586
	0.3468	0.3399	0.315	0.3432
Individual	88	49	47	184
	3.1742	3.0375	3.0089	3.0956
	0.3081	0.3444	0.4543	0.3659
Collegial	81	34	30	145
	3.2302	3.031	3.0832	3.1531
	0.368	0.3558	0.353	0.3705
Total	241	110	106	457
	3.2068	3.048	3.0467	3.1315
	0.3402	0.3445	0.3904	0.3616

*** ANALYSIS OF VARIANCE ***

Factor: Continuous Growth By School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	3.144	4	.786	6.244	.000
B - SCH LEVEL	2.745	2	1.372	10.903	.000
E - PLAN	.246	2	.123	.977	.377
2-way Interactions	.088	4	.022	.175	.951
B E	.088	4	.022	.175	.951
Explained	3.232	8	.404	3.209	.001
Residual	56.390	448	.126		
Total	59.621	456	.131		

Factor 2 of 4 - Instructional Planning

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	3.1123	3.0219	3.0074	3.0695
	0.3893	0.3588	0.4034	0.3865
Individual	88	49	47	184
	3.1627	2.9113	2.8686	3.0206
	0.3702	0.4203	0.5075	0.4417
Collegial	81	34	30	145
	3.1924	2.9511	2.9579	3.0873
	0.4137	0.3929	0.3795	0.4166
Total	241	110	106	457
	3.1576	2.9507	2.9318	3.0554
	0.3906	0.3965	0.4467	0.419

***** ANALYSIS OF VARIANCE *****

Factor: Instructional Planning by School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	5.546	4	1.386	8.408	.000
B - SCH LEVEL	5.150	2	2.575	15.616	.000
E - PLAN	.205	2	.102	.621	.538
2-way Interactions	.631	4	.158	.956	.431
B E	.631	4	.158	.956	.431
Explained	6.176	8	.772	4.682	.000
Residual	73.875	448	.165		
Total	80.051	456	.176		

Factor 3 of 4 - Teacher Empowerment for Performance

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	3.0787	3.0176	3.0245	3.0535
	0.3251	0.3143	0.2749	0.3111
Individual	88	49	47	184
	3.0097	2.8663	2.8642	2.9344
	0.3053	0.2893	0.4207	0.3406
Collegial	81	34	30	145
	3.0488	2.9304	2.9217	2.9948
	0.3568	0.3903	0.3751	0.3711
Total	241	110	106	457
	3.0435	2.9233	2.9243	2.9869
	0.3291	0.332	0.3754	0.3455

*** ANALYSIS OF VARIANCE ***

Factor: Empower Own Performance by School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	2.538	4	.635	5.493	.000
B - SCH LEVEL	1.453	2	.726	6.289	.002
E - PLAN	.907	2	.453	3.924	.020
2-way Interactions	.147	4	.037	.319	.865
B E	.147	4	.037	.319	.865
Explained	2.685	8	.336	2.906	.004
Residual	51.747	448	.116		
Total	54.432	456	.119		

Factor 4 of 4 - Facilitation of Own Learning

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	2.7678	2.7065	2.8406	2.7714
	0.3738	0.3317	0.3868	0.3683
Individual	88	49	47	184
	2.7729	2.7626	2.7181	2.7561
	0.371	0.3998	0.412	0.388
Collegial	81	34	30	145
	2.7918	2.7629	2.7557	2.7775
	0.3295	0.3376	0.4083	0.3468
Total	241	110	106	457
	2.7777	2.7489	2.7623	2.7672
	0.3571	0.3629	0.4036	0.3691

***** ANALYSIS OF VARIANCE *****
 Factor: Facilitate Own Learning by School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	.100	4	.025	.181	.948
B - SCH LEVEL	.059	2	.030	.216	.806
E - PLAN	.034	2	.017	.122	.885
2-way Interactions	.327	4	.082	.594	.667
B E	.327	4	.082	.594	.667
Explained	.427	8	.053	.387	.927
Residual	61.710	448	.138		
Total	62.136	456	.136		

Appendix C. Factor Analysis - Seven Factors - Analysis of Variance and Mean Score Tables

Factor 1 of 7 - Satisfaction with Opportunities for Growth in Instructional Planning

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	3.1046	3.0375	3.0252	3.0725
	0.4319	0.3571	0.4564	0.4215
Individual	88	49	47	184
	3.2454	3.0916	3.0054	3.1431
	0.41	0.4983	0.5807	0.4903
Collegial	81	34	30	145
	3.2802	3.1233	3.1301	3.2123
	0.4649	0.4005	0.423	0.4458
Total	241	110	106	457
	3.215	3.0881	3.0461	3.1453
	0.44	0.4351	0.5055	0.4601

*** ANALYSIS OF VARIANCE ***

FACTOR 1 OF 7 BY SCH LEVEL and PLAN

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	3.907	4	.977	4.745	.001
B - SCH LEVEL	2.576	2	1.288	6.256	.002
E - PLAN	1.333	2	.666	3.237	.040
2-way Interactions	.385	4	.096	.467	.760
B E	.385	4	.096	.467	.760
Explained	4.292	8	.537	2.606	.009
Residual	92.223	448	.206		
Total	96.515	456	.212		

Factor 2 of 7 - The Role and Interaction with the Principal

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	3.22	3.1397	2.9369	3.0725
	0.6157	0.4785	0.4892	0.4215
Individual	88	49	47	184
	2.9916	2.7764	2.7654	3.1431
	0.4939	0.5699	0.7307	0.4903
Collegial	81	34	30	145
	3.0768	2.7195	2.8508	3.2123
	0.6168	0.6033	0.6867	0.4458
Total	241	110	106	457
	3.0885	2.8172	2.8365	2.9722
	0.5797	0.5371	0.6581	0.61

*** ANALYSIS OF VARIANCE ***

FACTOR 2 OF 7 BY School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	11.582	4	2.895	8.258	.000
B	6.241	2	3.120	8.900	.000
E	4.673	2	2.336	6.664	.001
2-way Interactions	1.056	4	.264	.753	.557
B E	1.056	4	.264	.753	.557
Explained	12.637	8	1.580	4.506	.000
Residual	157.068	448	.351		
Total	169.705	456	.372		

Factor 3 of 7 - Specific Staff Development Activities

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	2.8468	2.7592	2.8629	2.832
	0.4206	0.5379	0.4163	0.4447
Individual	88	49	47	184
	2.7902	2.654	2.6065	2.707
	0.4499	0.4541	0.5592	0.4854
Collegial	81	34	30	145
	2.8668	2.6611	2.653	2.7743
	0.4067	0.4676	0.4168	0.4335
Total	241	110	106	457
	2.8328	2.682	2.6898	2.7634
	0.4266	0.4775	0.4929	0.46

*** ANALYSIS OF VARIANCE ***

FACTOR 3 OF 7 BY SCH LEVEL and PLAN

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	3.434	4	.858	4.166	.003
B - SCH LEVEL	2.230	2	1.115	5.411	.005
E - PLAN	.969	2	.484	2.350	.097
2-way Interactions	.748	4	.187	.908	.459
B E	.748	4	.187	.908	.459
Explained	4.182	8	.523	2.537	.010
Residual	92.315	448	.206		
Total	96.496	456	.212		

Factor 4 of 7 - Increase in Knowledge Base

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	2.7981	2.6623	2.858	2.7831
	0.4447	0.6304	0.6082	0.5273
Individual	88	49	47	184
	2.8072	2.7718	2.7404	2.7807
	0.4039	0.4977	0.4787	0.4482
Collegial	81	34	30	145
	2.8173	2.7377	2.7344	2.7815
	0.4819	0.3729	0.3618	0.4346
Total	241	110	106	457
	2.8079	2.7344	2.7709	2.7816
	0.4417	0.4979	0.4879	0.4666

*** ANALYSIS OF VARIANCE ***

Factor 4 of 7 by School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	.425	4	.106	.484	.748
B - SCH LEVEL	.424	2	.212	.967	.381
E - PLAN	.001	2	.001	.002	.998
2-way Interactions	.526	4	.131	.599	.664
B E	.526	4	.131	.599	.664
Explained	.950	8	.119	.541	.825
Residual	98.325	448	.219		
Total	99.276	456	.218		

Factor 5 of 7 - Commitment to the Profession

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	26	29	127
	3.3519	3.3526	3.2874	3.3373
	0.5341	0.5818	0.4247	0.5184
Individual	88	49	47	184
	3.4508	3.3537	3.4113	3.4149
	0.4633	0.575	0.4925	0.5014
Collegial	80	34	30	144
	3.4521	3.3775	2.4333	3.4306
	0.5171	0.5793	0.439	0.5149
Total	240	109	106	455
	3.4215	3.3609	3.3836	3.3982
	0.5033	0.5727	0.4596	0.5108

***** ANALYSIS OF VARIANCE *****

Factor 5 of 7 by School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	1.022	4	.255	.972	.423
B - SCH LEVEL	.349	2	.174	.663	.516
E - PLAN	.717	2	.358	1.364	.257
2-way Interactions	.175	4	.044	.167	.955
B E	.175	4	.044	.167	.955
Explained	1.197	8	.150	.569	.803
Residual	117.251	446	.263		
Total	118.448	454	.261		

Factor 6 of 7 - Educational Conferences

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	3.1016	2.721	2.9132	2.9786
	0.642	0.7102	0.556	0.6523
Individual	88	49	47	184
	2.9818	2.869	2.8539	2.9191
	0.6243	0.7625	0.6934	0.6799
Collegial	80	34	30	144
	2.8537	2.8642	2.9294	2.872
	0.6057	0.462	0.477	0.5468
Total	240	110	106	456
	2.9751	2.8312	2.8915	2.9209
	0.6288	0.667	0.5976	0.6328

***** ANALYSIS OF VARIANCE *****

Factor 6 of 7 by School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	2.426	4	.607	1.527	.193
B - SCH LEVEL	1.654	2	.827	2.082	.126
E - PLAN	.745	2	.373	.938	.392
2-way Interactions	2.148	4	.537	1.351	.250
B * E	2.148	4	.537	1.351	.250
Explained	4.574	8	.572	1.439	.178
Residual	177.597	447	.397		
Total	182.170	455	.400		

Factor 7 of 7 - Peer Support and Interaction

Count				
Mean				
Std.Dev.	Elem	Mid	High	Total
Structured	72	27	29	128
	3.1296	3.1049	3.1621	3.1318
	0.4883	0.4296	0.3948	0.4537
Individual	88	49	47	184
	3.0511	2.9293	2.9589	2.9951
	0.5024	0.4845	0.5274	0.5044
Collegial	81	34	30	145
	3.1753	3.0833	3.0611	3.1301
	0.5577	0.4328	0.4983	0.5181
Total	241	110	106	457
	3.1163	3.0	3.0434	3.0762
	0.5182	0.4592	0.489	0.4986

*** ANALYSIS OF VARIANCE ***

Factor 7 of 7 by School Level and Plan

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	2.685	4	.671	2.724	.029
B - SCH LEVEL	.658	2	.329	1.335	.264
E - PLAN	1.835	2	.918	3.724	.025
2-way Interactions	.322	4	.080	.327	.860
B E	.322	4	.080	.327	.860
Explained	3.006	8	.376	1.525	.146
Residual	110.371	448	.246		
Total	113.377	456	.249		

Appendix D. Reliability Analysis
Continuous Growth
Instructional Planning
Empowering Teachers for Performance Analysis
Facilitate Own Learning

VARIABLE LABELS F 'ITEM1' G 'ITEM2' H 'ITEM3' I 'ITEM4' J 'ITEM5' L 'ITEM7'
R 'ITEM13' X 'ITEM19' Y 'ITEM20' Z 'ITEM21' AD 'ITEM25' AI 'ITEM30'
AP 'ITEM37' AS 'ITEM42' AV 'ITEM45' BB 'ITEM51' BD 'ITEM53' BH 'ITEM57'
BI 'ITEM58' BK 'ITEM60' BL 'ITEM61' BM 'ITEM62' BN 'ITEM63'.

RELIABILITY VARIABLES F G H I J L R X Y Z AD AI AP AS AV BB BD BH BI BK
BL BM BN

/MODEL=ALPHA
/SCALE(CONTGROW)=F TO BN
/SUMMARY=MEANS CORR TOTAL
/STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (CONTINUOUS
GROWTH)

			MEAN	STD DEV	CASES
1.	F	ITEM1	3.3045	.7026	243.0
2.	G	ITEM2	3.3292	.6670	243.0
3.	H	ITEM3	3.2181	.7084	243.0
4.	I	ITEM4	3.2675	.7318	243.0
5.	J	ITEM5	3.0658	.8306	243.0
6.	L	ITEM7	2.9630	.7120	243.0
7.	R	ITEM13	2.8642	.7231	243.0
8.	X	ITEM19	2.8477	.8513	243.0
9.	Y	ITEM20	2.9547	.7886	243.0
10.	Z	ITEM21	3.0741	.7624	243.0
11.	AD	ITEM25	2.8107	.9029	243.0
12.	AI	ITEM30	3.2551	.6748	243.0
13.	AP	ITEM37	3.4239	.5580	243.0
14.	AS	ITEM42	3.1481	.5984	243.0
15.	AV	ITEM45	3.2798	.6893	243.0
16.	BB	ITEM51	3.1811	.5224	243.0
17.	BD	ITEM53	3.2675	.6971	243.0
18.	BH	ITEM57	3.2469	.7638	243.0
19.	BI	ITEM58	2.8601	.7476	243.0
20.	BK	ITEM60	3.1728	.6765	243.0
21.	BL	ITEM61	2.9712	.6887	243.0
22.	BM	ITEM62	3.4979	.6323	243.0
23.	BN	ITEM63	3.4774	.6253	243.0

RELIABILITY ANALYSIS - SCALE (CONTGROW)

CORRELATION MATRIX

		F	G	H	I	J	L	R	X
F ITEM	1	1.0000							
G ITEM	2	.7728	1.0000						
H ITEM	3	.7294	.7394	1.0000					
I ITEM	4	.7088	.6992	.7558	1.0000				
J ITEM	5	.5815	.5574	.6638	.6779	1.0000			
L ITEM	7	.3118	.3129	.3274	.4156	.3605	1.0000		
R ITEM	13	.2526	.2473	.2840	.3110	.3865	.4317	1.0000	
X ITEM	19	.1469	.1905	.2129	.2182	.2714	.2020	.3489	1.0000
Y ITEM	20	.1891	.2563	.2988	.3003	.3137	.1884	.3008	.6976
Z ITEM	21	.2200	.2363	.2837	.2680	.3251	.1117	.2507	.6414
ADITEM	25	.2736	.2617	.3103	.3271	.3693	.2269	.3782	.6129
AI ITEM	30	.1928	.2441	.2289	.2378	.2206	.1144	.1052	.1111
API ITEM	37	.2491	.1898	.2565	.2474	.2962	.1437	.1433	.1625
ASITEM	42	.4230	.3846	.3816	.4564	.3960	.5076	.4000	.1580
AVITEM	45	.2585	.2572	.2553	.2934	.2275	.1896	.0932	.1011
BBITEM	51	.3783	.3619	.3730	.3376	.2581	.2626	.2951	.1924
BDITEM	53	.1705	.2186	.2830	.2884	.2692	.2532	.1134	.2012
BHITEM	57	.0749	.0750	.1292	.0883	.0915	.0169	.0984	.0581
BI ITEM	58	.2781	.2502	.2217	.2349	.1347	.0834	.0717	.1742
BKITEM	60	.5930	.4870	.5074	.4738	.3915	.2536	.2256	.1535
BLITEM	61	.4025	.3625	.3856	.4662	.3501	.3433	.3240	.2885
BMITEM	62	.2805	.2270	.2732	.3182	.2048	.2155	.1576	.0570
BNITEM	63	.1474	.1170	.1558	.1442	.1143	.1513	.0617	.0362

CORRELATION MATRIX (continued)

	Y	Z	AD	AI	AP	AS	AV	BB
Y ITEM20	1.0000							
Z ITEM21	.7066	1.0000						
AD ITEM25	.5740	.5247	1.0000					
AI ITEM30	.1849	.1639	.1542	1.0000				
AP ITEM37	.1001	.1687	.1435	.2164	1.0000			
AS ITEM42	.2332	.1660	.3045	.2028	.1205	1.0000		
AV ITEM45	.1678	.2120	.1386	.3079	.1308	.2497	1.0000	
BB ITEM51	.2306	.2360	.2832	.1849	.2034	.3501	.1800	1.0000
BD ITEM53	.2401	.2036	.2318	.1881	.0898	.2612	.1016	.2409
BH ITEM57	.0941	.0820	.0381	.1579	.1122	.0643	.4647	.0014
BI ITEM58	.1574	.0690	.2300	.1038	.1626	.1112	.0202	.3509
BK ITEM60	.1851	.1674	.2567	.2017	.2211	.3652	.1440	.3671
BL ITEM61	.3628	.2952	.2902	.3004	.1717	.4315	.2695	.3706
BM ITEM62	.0951	.1203	.2454	.1368	.1372	.3175	.1436	.1638
BN ITEM63	.0608	.0642	.1973	.0627	.1283	.2298	.1394	.1644

RELIABILITY ANALYSIS - SCALE (CONTGROW)

CORRELATION MATRIX (continued)

	BD	BH	BI	BK	BL	BM
BD ITEM 53	1.0000					
BH ITEM 57	.0074	1.0000				
BI ITEM 58	.1197	-.0695	1.0000			
BK ITEM 60	.2871	-.0270	.3095	1.0000		
BL ITEM 61	.3345	.0843	.2169	.4453	1.0000	
BM ITEM 62	.1934	.0182	.1130	.3486	.3082	1.0000
BN ITEM 63	.2462	.0204	.1346	.2828	.2240	.7654

OF CASES = 243.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/ MIN	VARIANCE
	3.1514	2.8107	3.4979	.6872	1.2445	.0418

INTER-ITEM CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/ MIN	VARIANCE
	.2549	-.0695	.7728	.8423	-11.1172	.0248

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
F ITEM 1	69.1770	68.6752	.6465	.7298	.8772
G ITEM2	69.1523	69.2040	.6351	.6848	.8778
H ITEM3	69.2634	68.1204	.6905	.7130	.8760
I ITEM4	69.2140	67.6234	.7093	.7138	.8752
J ITEM5	69.4156	67.2852	.6401	.5806	.8768
L ITEM7	69.5185	70.7713	.4524	.3816	.8825
R ITEM13	69.6173	70.6835	.4516	.3772	.8825
X ITEM19	69.6337	69.3984	.4635	.6140	.8825
Y ITEM20	69.5267	69.1594	.5272	.6447	.8804
Z ITEM21	69.4074	69.8953	.4880	.5903	.8815
AD ITEM25	69.6708	67.6350	.5553	.5126	.8796
AI ITEM30	69.2263	72.4238	.3324	.2061	.8855
AP ITEM37	69.0576	73.3603	.3165	.1751	.8855
AS ITEM42	69.3333	70.8099	.5490	.4397	.8804
AV ITEM45	69.2016	71.9881	.3620	.3680	.8848
BB ITEM51	69.3004	72.1119	.4861	.3409	.8822
BD ITEM53	69.2140	71.7309	.3794	.2497	.8844
BH ITEM57	69.2346	74.3043	.1374	.2660	.8914
BI ITEM58	69.6214	72.5255	.2837	.2369	.8872
BK ITEM60	69.3086	69.9663	.5543	.4698	.8798
BL ITEM61	69.5103	69.3914	.5953	.4302	.8787
BM ITEM62	68.9835	72.0576	.3949	.6581	.8839
BN ITEM63	69.0041	73.1777	.2924	.6350	.8863

RELIABILITY COEFFICIENTS 23 ITEMS

ALPHA = .8865 STANDARDIZED ITEM ALPHA = .8872

VARIABLE LABELS I 'ITEM4' J 'ITEM5' K 'ITEM6' L 'ITEM7' M 'ITEM8' O 'ITEM10'
 P 'ITEM11' Q 'ITEM12' R 'ITEM13' S 'ITEM14' T 'ITEM15' U 'ITEM16'
 V 'ITEM17' Y 'ITEM20' Z 'ITEM21' AA 'ITEM22' AB 'ITEM23' AF 'ITEM27'
 AG 'ITEM28' AH 'ITEM29' AU 'ITEM44'.

RELIABILITY VARIABLES I J K L M O P Q R S T U V Y Z AA AB AF AG AH AU
 /MODEL=ALPHA
 /SCALE(INSTPLAN)=I TO AU
 /SUMMARY=MEANS CORR TOTAL
 /STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (INSTPLAN)

		MEAN	STD DEV	CASES
1.	I ITEM4	3.2834	.7183	187.0
2.	J ITEM5	3.0481	.7984	187.0
3.	K ITEM6	3.3636	.6528	187.0
4.	L ITEM7	2.9572	.7171	187.0
5.	M ITEM8	3.2620	.7834	187.0
6.	O ITEM10	2.7968	.8174	187.0
7.	P ITEM11	2.9626	.7504	187.0
8.	Q ITEM12	2.8235	.7228	187.0
9.	R ITEM13	2.8449	.7351	187.0
10.	S ITEM14	2.7540	.6982	187.0
11.	T ITEM15	3.1604	.6010	187.0
12.	U ITEM16	2.8503	.7325	187.0
13.	V ITEM17	3.3743	.5948	187.0
14.	Y ITEM20	3.0267	.7859	187.0
15.	Z ITEM21	3.1016	.7444	187.0
16.	AA ITEM22	3.1604	.7228	187.0
17.	AB ITEM23	3.2086	.7217	187.0
18.	AF ITEM27	3.1497	.7026	187.0
19.	AG ITEM28	3.1390	.6736	187.0
20.	AH ITEM29	3.0481	.7426	187.0
21.	AU ITEM44	3.2460	.6251	187.0

RELIABILITY ANALYSIS - SCALE (INSTPLAN)

CORRELATION MATRIX

	I	J	K	L	M	O	P	Q	R
I ITEM4	1.0000								
J ITEM5	.6417	1.0000							
K ITEM6	.6045	.5129	1.0000						
L ITEM7	.3368	.3510	.2860	1.0000					
M ITEM8	.4023	.4353	.3593	.4028	1.0000				
O ITEM10	.3825	.4270	.3508	.4253	.5370	1.0000			
P ITEM11	.4088	.3620	.3462	.3567	.3186	.3732	1.0000		
Q ITEM12	.4489	.3595	.4102	.4521	.3289	.4577	.5428	1.0000	
R ITEM13	.2568	.3792	.2414	.4361	.4070	.5378	.3965	.5351	1.0000
S ITEM14	.3756	.3492	.3152	.3761	.2757	.5242	.3415	.4248	.5433
T ITEM15	.2926	.4096	.3027	.3777	.3327	.3403	.4545	.3997	.3852
U ITEM16	.2956	.3985	.2831	.2436	.3404	.3889	.4690	.4372	.3760
V ITEM17	.3544	.3694	.3537	.4033	.3999	.4448	.4532	.3921	.3917
Y ITEM20	.3103	.3321	.3477	.2215	.2156	.3851	.2114	.3018	.2771
Z ITEM21	.2676	.3445	.3218	.1089	.2214	.3434	.2186	.2833	.2648
AA ITEM22	.4918	.4337	.5821	.2933	.3906	.3921	.4175	.5072	.3304
AB ITEM23	.5802	.5237	.5571	.2978	.3498	.3821	.4215	.5141	.3349
AF ITEM27	.5440	.4472	.5019	.2689	.3386	.4371	.4492	.3911	.2846
AG ITEM28	.6293	.5673	.5691	.3574	.3687	.4324	.4252	.4593	.4021
AH ITEM29	.2464	.2500	.2964	.2260	.2739	.2288	.2155	.2864	.3191
AU ITEM44	.2630	.2131	.1749	.1076	.1202	.1825	.1458	.1799	.1069

CORRELATION MATRIX (continued)

	S	T	U	V	Y	Z	AA	AB	AF
S ITEM14	1.0000								
T ITEM15	.3508	1.0000							
U ITEM16	.4006	.6044	1.0000						
V ITEM17	.3524	.5079	.4132	1.0000					
Y ITEM20	.3550	.1161	.1658	.2200	1.0000				
Z ITEM21	.3173	.1917	.2154	.2658	.7214	1.0000			
AA ITEM22	.3023	.4231	.4213	.4098	.4846	.4092	1.0000		
AB ITEM23	.2837	.4307	.3950	.4184	.3883	.3006	.6982	1.0000	
AF ITEM27	.3385	.3502	.3468	.4313	.3530	.2997	.5982	.6167	1.0000
AG ITEM28	.4275	.4493	.4020	.5001	.5008	.4220	.6275	.7806	.6602
AH ITEM29	.2718	.2115	.2406	.2877	.2834	.1954	.3762	.2821	.2747
AU ITEM44	.1147	.0089	-.0013	.1414	.2054	.1886	.1740	.0763	.1115

CORRELATION MATRIX (continued)

	AG	AH
AG ITEM28	1.0000	
AH ITEM29	.3413	1.0000
AU ITEM44	.1482	.1944

OF CASES = 187.0

RELIABILITY ANALYSIS - SCALE (INSTRUCTIONAL PLANING)

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/ MIN	VARIANCE
	3.0744	2.7540	3.3743	.6203	1.2252	.0350

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MIN	VARIANCE
	.3604	-.0013	.7806	.7820	-592.0688	.0171

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
I ITEM4	61.2781	79.9438	.6523	.6303	.9166
J ITEM5	61.5134	78.9823	.6496	.5534	.9166
K ITEM6	61.1979	81.1381	.6185	.5035	.9175
L ITEM7	61.6043	81.8103	.5021	.3982	.9197
M ITEM8	61.2995	80.5658	.5446	.4250	.9190
O ITEM10	61.7647	78.8583	.6415	.5432	.9168
P ITEM11	61.5989	80.4781	.5792	.4404	.9181
Q ITEM12	61.7380	79.9041	.6510	.5566	.9166
R ITEM13	61.7166	80.6988	.5754	.5217	.9182
S ITEM14	61.8075	81.2531	.5639	.4751	.9184
T ITEM15	61.4011	82.4566	.5516	.5218	.9188
U ITEM16	61.7112	81.1527	.5417	.4944	.9189
V ITEM17	61.1872	82.0347	.5987	.4439	.9180
Y ITEM20	61.5348	80.9921	.5111	.6365	.9197
Z ITEM21	61.4599	81.9379	.4710	.5743	.9204
AA ITEM22	61.4011	79.2415	.7052	.6488	.9155
AB ITEM23	61.3529	79.4016	.6933	.7255	.9158
AF ITEM27	61.4118	80.2328	.6446	.5509	.9168
AG ITEM28	61.4225	79.2023	.7660	.7502	.9145
AH ITEM29	61.5134	82.6598	.4168	.2407	.9215
AU ITEM44	61.3155	85.8408	.2251	.1678	.9244

RELIABILITY COEFFICIENTS 21 ITEMS

ALPHA = .9218 STANDARDIZED ITEM ALPHA = .9221

VARIABLE LABELS M 'ITEM8' N 'ITEM9' W 'ITEM18' AA 'ITEM22' AB 'ITEM23'
 AE 'ITEM26' AF 'ITEM27' AL 'ITEM33' AO 'ITEM36' AQ 'ITEM40' AR 'ITEM41'
 AX 'ITEM47' AY 'ITEM48' AZ 'ITEM49' BA 'ITEM50' BF 'ITEM55' BG 'ITEM56'
 BI 'ITEM58'.

RELIABILITY VARIABLES M N W AA AB AE AF AL AO AQ AR AX AY AZ BA BF
 BG BI

/MODEL=ALPHA
 /SCALE(PERFEMPW)=M TO BI
 /SUMMARY=MEANS CORR TOTAL
 /STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (PERFORMANCE
 EMPOWERMENT)

		MEAN	STD DEV	CASES
1.	M ITEM8	3.2832	.7256	286.0
2.	N ITEM9	3.0944	.8045	286.0
3.	W ITEM18	2.0769	.9183	286.0
4.	AA ITEM22	3.1189	.7302	286.0
5.	AB ITEM23	3.2028	.7114	286.0
6.	AE ITEM26	3.2692	1.2653	286.0
7.	AF ITEM27	3.0804	.6987	286.0
8.	AL ITEM33	3.2273	.6105	286.0
9.	AO ITEM36	3.0105	.8765	286.0
10.	AQ ITEM40	2.6049	.6917	286.0
11.	AR ITEM41	2.8671	.6727	286.0
12.	AX ITEM47	2.6469	.8151	286.0
13.	AY ITEM48	3.0944	.7020	286.0
14.	AZ ITEM49	3.2343	.6788	286.0
15.	BA ITEM50	2.9685	.6720	286.0
16.	BF ITEM55	2.7378	.7383	286.0
17.	BG ITEM56	2.9545	.7313	286.0
18.	BI ITEM58	2.8636	.7198	286.0

RELIABILITY ANALYSIS -SCALE (PERFORMANCE
MPOWER.)

E

CORRELATION MATRIX

	M	N	W	AA	AB	AE	AF	AL	AO
M ITEM8	1.0000								
N ITEM9	.5190	1.0000							
W ITEM18	.1673	.1136	1.0000						
AA ITEM22	.3534	.2675	.2375	1.0000					
AB ITEM23	.3166	.2546	.1479	.6964	1.0000				
AE ITEM26	.0581	-.0664	.0214	.1513	.1184	1.0000			
AF ITEM27	.3286	.2299	.1544	.5932	.6235	.2016	1.0000		
AL ITEM33	.3453	.2705	.1502	.4587	.5156	.0977	.4341	1.0000	
AO ITEM36	-.1150	-.0213	-.3803	-.0403	-.0203	.1588	-.0300	-.0897	1.0000
AQ ITEM40	.2098	.1682	.2579	.3712	.3559	.1019	.3636	.1885	-.0684
AR ITEM41	.3434	.2243	.1984	.4109	.3865	.1782	.3886	.1934	.0143
AX ITEM47	.0748	.0671	.0880	.1356	.1603	.0517	.1486	.2324	-.0586
AY ITEM48	.1402	.1395	.0921	.3134	.3269	.1609	.3207	.1954	.0953
AZ ITEM49	.1070	.0686	.1005	.1560	.1992	.1061	.2857	.1674	.0018
BA ITEM50	.0399	-.0140	.0722	.1292	.2042	.3649	.1997	.2056	.0542
BF ITEM55	.1981	.0182	.1179	.2273	.2018	-.0030	.2315	.2183	-.0554
BG ITEM56	.0772	.0312	.1359	.2007	.2134	.1384	.1857	.1804	.0226
BI ITEM58	.0876	.0162	.0690	.1711	.1570	.2446	.1963	.2464	-.0923

CORRELATION MATRIX (continued)

	AQ	AR	AX	AY	AZ	BA	BF	BG
AQ ITEM40	1.0000							
AR ITEM41	.6108	1.0000						
AX ITEM47	.1375	.1189	1.0000					
AY ITEM48	.2722	.2496	.2915	1.0000				
AZ ITEM49	.2053	.1991	.2262	.2995	1.0000			
BA ITEM50	.1241	.1615	.1974	.1551	.2777	1.0000		
BF ITEM55	.1125	.1486	.1954	.1698	.1510	.0752	1.0000	
BG ITEM56	.2627	.2659	.2026	.5483	.1346	.1613	.3418	1.0000
BI ITEM58	.1451	.2523	.1269	-.0022	.0010	.3320	.1900	-.1082

OF CASES = 286.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/ MIN	VARIANCE
	2.9631	2.0769	3.2832	1.2063	1.5808	.0915

INTER-ITEM CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/ MIN	VARIANCE
	.1799	-.3803	.6964	1.0767	-1.8314	.0231

RELIABILITY ANALYSIS-SCALE (PERFORMANCE
EMPOWERMENT)

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
M	50.0524	36.4779	.3921	.3990	.7608
N	50.2413	37.2433	.2598	.3201	.7704
W	51.2587	37.4205	.1938	.2379	.7774
AA	50.2168	34.7528	.5988	.5728	.7460
AB	50.1329	34.9297	.5953	.5976	.7468
AE	50.0664	35.0938	.2499	.2287	.7814
AF	50.2552	34.9627	.6039	.5022	.7466
AL	50.1084	36.4479	.4912	.3863	.7561
AO	50.3252	40.4448	-.0692	.2204	.7967
AQ	50.7308	36.0852	.4666	.4295	.7561
AR	50.4685	35.6323	.5425	.4902	.7514
AX	50.6888	36.9870	.2814	.1672	.7689
AY	50.2413	35.9942	.4694	.4428	.7557
AZ	50.1014	37.2844	.3253	.2223	.7654
BA	50.3671	37.0823	.3552	.2884	.7636
BF	50.5979	37.2167	.2975	.2330	.7673
BG	50.3811	36.4262	.3943	.4071	.7606
BI	50.4720	37.4641	.2790	.2579	.7685

RELIABILITY COEFFICIENTS 18 ITEMS

ALPHA = .7738 STANDARDIZED ITEM ALPHA = .7979

TRANSLATE FROM='C:\LYLE3\LIST7.WK1'.

Data written to the active file.
69 variables and 577 cases written.

VARIABLE LABELS N 'ITEM9' W 'ITEM18' AC 'ITEM24' AJ 'ITEM31' AK 'ITEM32'
AM 'ITEM34' AN 'ITEM35' AT 'ITEM43' AW 'ITEM46' BB 'ITEM51' BC 'ITEM52'
BD 'ITEM53' BE 'ITEM54' BJ 'ITEM59' BL 'ITEM61'.

RELIABILITY VARIABLES N W AC AJ AK AM AN AT AW BB BC BD BE BJ BL
/MODEL=ALPHA
/SCALE(FACILERN)=N TO BL
/SUMMARY=MEANS CORR TOTAL
/STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACIL. LEARNING)

		MEAN	STD DEV	CASES
1.	N ITEM9	3.1433	.8049	363.0
2.	W ITEM18	2.0441	.9273	363.0
3.	AC ITEM24	3.1791	.7713	363.0
4.	AJ ITEM31	1.7658	1.1212	363.0
5.	AK ITEM32	3.0579	.7429	363.0
6.	AM ITEM34	2.7879	.7878	363.0
7.	AN ITEM35	2.5344	1.3300	363.0
8.	AT ITEM43	3.0909	1.1539	363.0
9.	AW ITEM46	2.0606	1.1451	363.0
10.	BB ITEM51	3.1460	.5443	363.0
11.	BC ITEM52	3.2645	.6905	363.0
12.	BD ITEM53	3.2948	.6882	363.0
13.	BE ITEM54	3.2700	.6639	363.0
14.	BJ ITEM59	2.1983	.8853	363.0
15.	BL ITEM61	3.0083	.6627	363.0

RELIABILITY ANALYSIS - SCALE (FACI LEARNING)

CORRELATION MATRIX

	N	W	AC	AJ	AK	AM	AN
N ITEM9	1.0000						
W ITEM18	.1840	1.0000					
AC ITEM24	.2433	.1009	1.0000				
AJ ITEM31	.0373	-.0246	.0486	1.0000			
AK ITEM32	.2448	.0043	.2422	.1689	1.0000		
AM ITEM34	.1918	.1414	.1945	-.0095	.1201	1.0000	
AN ITEM35	.0392	.0480	.1165	.0879	.0833	.1032	1.0000
AT ITEM43	.0424	-.0141	.1648	-.0540	.1163	.0061	.1213
AW ITEM46	.0235	.0131	.0753	.1638	.1582	.0174	.2127
BB ITEM51	.2232	.1186	.1613	.0516	.1362	.2786	.0980
BC ITEM52	.2100	.0335	.1857	.0731	.2447	.2659	.0382
BD ITEM53	.2178	.0965	.2177	-.0177	.0962	.1360	-.0247
BE ITEM54	.2376	.0793	.1697	.0035	.2483	.1573	-.0106
BJ ITEM59	.0802	.2484	.1380	-.0449	.0497	.2546	.0200
BL ITEM61	.2722	.1163	.2835	.0770	.2908	.2044	.1230

CORRELATION MATRIX

	AT	AW	BB	BC	BD	BE	BJ
AT ITEM43	1.0000						
AW ITEM46	.0962	1.0000					
BB ITEM51	.1064	.1542	1.0000				
BC ITEM52	.0911	.0111	.3085	1.0000			
BD ITEM53	.1505	-.0438	.1650	.2831	1.0000		
BE ITEM54	.0941	.0148	.3187	.6332	.4058	1.0000	
BJ ITEM59	.0283	.0126	.1232	.1037	.1894	.0966	1.0000
BL ITEM61	.1471	.1049	.2494	.3272	.2854	.3089	.1997

OF CASES = 363.0

					MAX/	
ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MIN	VARIANCE
	2.7897	1.7658	3.2948	1.5289	1.8658	.2768
INTER-ITEM						
CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MIN	VARIANCE
	.1354	-.0540	.6332	.6872	-11.7349	.0124

RELIABILITY ANALYSIS - SCALE (FACILITATE LEARNING)

ITEM-TOTAL STATISTICS

		SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM TOTAL CORRELATION	SQUARED MULTIPLE CORREL.	ALPHA IF ITEM DELETED
N	ITEM9	38.7025	26.1433	.3299	.1855	.6153
W	ITEM18	39.8017	27.0158	.1692	.1042	.6387
AC	ITEM24	38.6667	25.9853	.3721	.1730	.6103
AJ	ITEM31	40.0799	27.1621	.0930	.0711	.6568
AK	ITEM32	38.7879	26.2670	.3529	.1964	.6135
AM	ITEM34	39.0579	26.4082	.3060	.1909	.6188
AN	ITEM35	39.3113	25.2260	.1880	.0850	.6464
AT	ITEM43	38.7548	26.1911	.1680	.0819	.6442
AW	ITEM46	39.7851	26.0200	.1862	.1096	.6406
BB	ITEM51	38.6997	26.9952	.3916	.2096	.6158
BC	ITEM52	38.5813	26.1612	.4061	.4552	.6086
BD	ITEM53	38.5510	26.8392	.3076	.2434	.6203
BE	ITEM54	38.5758	26.4107	.3891	.4867	.6115
BJ	ITEM59	39.6474	26.7261	.2181	.1474	.6308
BL	ITEM61	38.8375	25.8879	.4715	.2634	.6021

RELIABILITY COEFFICIENTS 15 ITEMS

ALPHA = .6410 STANDARDIZED ITEM ALPHA = .7014

Appendix E. Reliability Analysis

**Factor 1-Satisfaction with Opportunities for Growth In
Instructional Planning**

Factor 2-The Role and Interaction with the Principal

Factor 3-Specific Staff Development Activities

Factor 4-Increase in Knowledge Base

Factor 5-Commitment to the Profession

Factor 6-Educational Conferences

Factor 7-Peer Support and Interaction

Factor 8- (deleted)

SPSS/PC+ The Statistical Package for IBM PC
TRANSLATE FROM='C:\LYLE3\LIST7.WK1'.

Data written to the active file.
69 variables and 577 cases written.

MISSING VALUES F TO BN (9).

VARIABLE LABELS G 'ITEM2' F 'ITEM1' H 'ITEM3' I 'ITEM4' K 'ITEM6' AB 'ITEM23'
J 'ITEM5' AG 'ITEM28' AL 'ITEM33' AA 'ITEM22' BK 'ITEM60' AF 'ITEM27'
BC 'ITEM52' T 'ITEM15' BE 'ITEM54' BF 'ITEM55' V 'ITEM17' AK 'ITEM32'.

RELIABILITY VARIABLES G F H I K AB J AG AL AA BK AF BC T BE BF V AK
/MODEL=ALPHA
/SCALE(FACTR1.8)=G TO AK
/SUMMARY=MEANS CORR TOTAL
/STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACTR1.8)

		MEAN	STD DEV	CASES
1.	G ITEM2	3.2776	.6926	317.0
2.	F ITEM1	3.2871	.6677	317.0
3.	H ITEM3	3.1924	.6873	317.0
4.	I ITEM4	3.2902	.7010	317.0
5.	K ITEM6	3.3312	.6895	317.0
6.	AB ITEM23	3.2177	.6703	317.0
7.	J ITEM5	3.0284	.8010	317.0
8.	AG ITEM28	3.0599	.6361	317.0
9.	AL ITEM33	3.2303	.6064	317.0
10.	AA ITEM22	3.1009	.7265	317.0
11.	BK ITEM60	3.1956	.6108	317.0
12.	AF ITEM27	3.0568	.6866	317.0
13.	BC ITEM52	3.2808	.6656	317.0
14.	T ITEM15	3.1230	.5959	317.0
15.	BE ITEM54	3.2839	.6376	317.0
16.	BF ITEM55	2.7508	.7320	317.0
17.	V ITEM17	3.2871	.6082	317.0
18.	AK ITEM32	3.0599	.6978	317.0

RELIABILITY ANALYSIS - SCALE (FACTR1.8)

CORRELATION MATRIX

	G	F	H	I	K	AB	J	AG
G ITEM2	1.0000							
F ITEM1	.7715	1.0000						
H ITEM3	.7517	.6930	1.0000					
I ITEM4	.6874	.6598	.7047	1.0000				
K ITEM6	.6485	.6589	.5997	.6189	1.0000			
AB ITEM23	.4693	.5105	.5270	.5386	.5556	1.0000		
J ITEM5	.4877	.5172	.5476	.5601	.4642	.5130	1.0000	
AG ITEM28	.4721	.4809	.5020	.5499	.5030	.7041	.4811	1.0000
AL ITEM33	.4351	.4615	.4704	.4676	.4604	.5381	.3905	.5794
AA ITEM22	.4599	.4555	.4934	.5140	.5396	.7281	.4084	.6306
BK ITEM60	.4697	.5448	.5132	.5248	.4844	.5450	.4091	.5644
AF ITEM27	.4991	.5165	.4864	.5113	.5350	.6675	.4516	.6370
BC ITEM52	.4345	.4589	.4003	.3741	.4311	.3733	.3352	.3861
T ITEM15	.3694	.3882	.3825	.3158	.3781	.4715	.4170	.4480
BE ITEM54	.3585	.3878	.3660	.3744	.4405	.4177	.2754	.4183
BF ITEM55	.2056	.2440	.2466	.2524	.2205	.2593	.2712	.2429
V ITEM17	.3361	.3731	.3823	.3607	.3612	.4440	.3535	.5198
AK ITEM32	.3125	.3297	.3520	.3525	.2612	.3509	.2687	.3484

CORRELATION MATRIX (continued)

	AL	AA	BK	AF	BC	T	BE	BF	V
AL ITEM33	1.0000								
AA ITEM22	.4787	1.0000							
BK ITEM60	.4761	.4760	1.0000						
AF ITEM27	.4777	.6039	.4715	1.0000					
BC ITEM52	.3333	.3862	.5028	.3666	1.0000				
T ITEM15	.3330	.4318	.4119	.3928	.3674	1.0000			
BE ITEM54	.3706	.4094	.6371	.3679	.6020	.3742	1.0000		
BF ITEM55	.2010	.2438	.3005	.2864	.2155	.1866	.2267	1.0000	
V ITEM17	.4466	.4284	.4192	.4383	.3006	.5048	.2870	.2039	1.0000
AK ITEM32	.3861	.3189	.3066	.3429	.2157	.1801	.2177	.1718	.3098

RELIABILITY ANALYSIS - SCALE (FACTR1.8)

OF CASES = 317.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	3.1696	2.7508	3.3312	.5804	1.2110	.0207

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	.4316	.1718	.7715	.5997	4.4898	.0167

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
G ITEM2	53.7760	59.7693	.7120	.7152	.9253
F ITEM1	53.7666	59.8061	.7380	.6875	.9248
H ITEM3	53.8612	59.5946	.7357	.6685	.9248
I ITEM4	53.7634	59.4723	.7315	.6388	.9248
K ITEM6	53.7224	59.8278	.7098	.5765	.9254
AB ITEM23	53.8360	59.6566	.7502	.6896	.9245
J ITEM5	54.0252	59.6006	.6171	.4455	.9278
AG ITEM28	53.9937	60.2151	.7348	.6352	.9250
AL ITEM33	53.8233	61.5257	.6287	.4433	.9273
AA ITEM22	53.9527	59.5832	.6922	.5974	.9257
BK ITEM60	53.8580	60.8690	.6959	.5866	.9259
AF ITEM27	53.9968	59.9715	.6987	.5555	.9256
BC ITEM52	53.7729	61.6508	.5529	.4438	.9289
T ITEM15	53.9306	62.4129	.5423	.4012	.9290
BE ITEM54	53.7697	61.8930	.5557	.5357	.9288
BF ITEM55	54.3028	63.4270	.3354	.1376	.9342
V ITEM17	53.7666	62.2175	.5510	.4070	.9288
AK ITEM32	53.9937	62.6835	.4257	.2271	.9318

RELIABILITY COEFFICIENTS 18 ITEMS

ALPHA = .9309 STANDARDIZED ITEM ALPHA = .9318

VARIABLE LABELS AD 'ITEM25' X 'ITEM19' BG 'ITEM56' Y 'ITEM20' Z 'ITEM21'
 AC 'ITEM24' AY 'ITEM48' O 'ITEM10'.

RELIABILITY VARIABLES AD X BG Y Z AC AY O
 /MODEL=ALPHA
 /SCALE(FACTR2.8)=AD TO O
 /SUMMARY=MEANS CORR TOTAL
 /STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACTR2.8)

		MEAN	STD DEV	CASES
1.	AD ITEM25	2.8394	.8795	355.0
2.	X ITEM19	2.8873	.8429	355.0
3.	BG ITEM56	3.0028	.7268	355.0
4.	Y ITEM20	3.0085	.7646	355.0
5.	Z ITEM21	3.1211	.7127	355.0
6.	AC ITEM24	3.2620	.7377	355.0
7.	AY ITEM48	3.1662	.6954	355.0
8.	O ITEM10	2.8169	.8287	355.0

RELIABILITY ANALYSIS - SCALE (FACTR2.8)

CORRELATION MATRIX

	AD	X	BG	Y	Z			
AD ITEM25	1.0000							
X ITEM19	.6271	1.0000						
BG ITEM56	.5796	.5861	1.0000					
Y ITEM20	.5565	.6458	.4778	1.0000				
Z ITEM21	.5359	.5871	.4302	.6876	1.0000			
AC ITEM24	.5962	.4656	.4043	.4969	.5198	1.0000		
AY ITEM48	.5472	.5429	.5189	.5605	.4894	.4380	1.0000	
O ITEM10	.3045	.2980	.3057	.3145	.3007	.2913	.2294	1.0000

RELIABILITY ANALYSIS - SCALE (FACTR2.8)

OF CASES = 355.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	3.0130	2.8169	3.2620	.4451	1.1580	.0259

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	.4763	.2294	.6876	.4582	2.9970	.0156

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
AD ITEM25	21.2648	14.9975	.7307	.5712	.8519
X ITEM19	21.2169	15.2212	.7325	.5754	.8517
BG ITEM56	21.1014	16.4586	.6380	.4518	.8625
Y ITEM20	21.0958	15.7479	.7277	.5960	.8529
Z ITEM21	20.9831	16.2822	.6883	.5420	.8577
AC ITEM24	20.8423	16.5061	.6171	.4254	.8645
AY ITEM48	20.9380	16.6402	.6390	.4394	.8627
O ITEM10	21.2873	17.4596	.3758	.1510	.8905

RELIABILITY COEFFICIENTS 8 ITEMS

ALPHA = .8774 STANDARDIZED ITEM ALPHA = .8792

RELIABILITY VARIABLES AQ W U AR Q S P L AS AO
 /MODEL=ALPHA
 /SCALE(FACTR3.8)=AQ TO AO
 /SUMMARY MEANS CORR TOTAL
 /STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACTR3.8)

		MEAN	STD DEV	CASES
1.	AQ ITEM40	2.6514	.6842	284.0
2.	W ITEM18	2.0317	.9261	284.0
3.	U ITEM16	2.7746	.7603	284.0
4.	AR ITEM41	2.9014	.6758	284.0
5.	Q ITEM12	2.7641	.7261	284.0
6.	S ITEM14	2.7113	.7480	284.0
7.	P ITEM11	2.9225	.7479	284.0
8.	L ITEM7	2.9261	.7267	284.0
9.	AS ITEM42	3.1303	.5890	284.0
10.	AO ITEM36	2.9965	.8428	284.0

CORRELATION MATRIX

	AQ	W	U	AR	Q	S	P	L	S
AQ ITEM40	1.0000								
W ITEM18	.2796	1.0000							
U ITEM16	.3647	.1306	1.0000						
AR ITEM41	.4756	.1970	.3418	1.0000					
Q ITEM12	.3673	.2581	.4731	.4133	1.0000				
S ITEM14	.4240	.2428	.4320	.4678	.5248	1.0000			
P ITEM11	.2923	.2076	.4912	.3134	.5389	.4210	1.0000		
L ITEM7	.4241	.2608	.3407	.3809	.5227	.4547	.4380	1.0000	
AS ITEM42	.4287	.1479	.3420	.5739	.4357	.4065	.3759	.4684	1.0000
AO ITEM3	-.0450	-.2941	-.0950	.0118	-.0245	-.0969	-.1070	.0342	-.0916

RELIABILITY ANALYSIS - SCALE (FACTR3.8)

OF CASES = 284.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	2.7810	2.0317	3.1303	1.0986	1.5407	.0897

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	.2878	-.2941	.5739	.8681	-1.9511	.0452

ITEM-TOTAL STATISTICS

	SCALE	SCALE	CORRECTED		
	MEAN	VARIANCE	ITEM- SQUARED	ALPHA	
	IF ITEM	IF ITEM	TOTAL	MULTIPLE	IF ITEM
	DELETED	DELETED	CORRELATION	CORRELATION	DELETED
AQ ITEM40	25.1585	15.3776	.5567	.3569	.7502
W ITEM18	25.7782	16.1662	.2429	.2144	.7956
U ITEM16	25.0352	15.2072	.5140	.3563	.7541
AR ITEM41	24.9085	15.2990	.5821	.4428	.7474
Q ITEM12	25.0458	14.6163	.6646	.4840	.7352
S ITEM14	25.0986	14.7676	.6099	.4175	.7416
P ITEM11	24.8873	15.0827	.5493	.3997	.7496
L ITEM7	24.8838	14.8168	.6235	.4203	.7405
AS ITEM42	24.6796	15.8440	.5635	.4435	.7526
AO ITEM36	24.8134	19.0781	-.1298	.1434	.8371

RELIABILITY COEFFICIENTS 10 ITEMS

ALPHA = .7812 STANDARDIZED ITEM ALPHA = .8016

VARIABLE LABELS AH 'ITEM29' AI 'ITEM30' AP 'ITEM37' R 'ITEM13' AJ 'ITEM31'
 AX 'ITEM47'.

RELIABILITY VARIABLES AH AI AP R AJ AX

/MODEL=ALPHA
 /SCALE(FACTR4.8)=AH TO AX
 /SUMMARY=MEANS CORR TOTAL
 /STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACTR4.8)

		MEAN	STD DEV	CASES
1.	AH ITEM29	3.0543	.7668	221.0
2.	AI ITEM30	3.1855	.7242	221.0
3.	AP ITEM37	3.4072	.5774	221.0
4.	R ITEM13	2.7964	.7800	221.0
5.	AJ ITEM31	1.9005	1.1751	221.0
6.	AX ITEM47	2.6968	.8546	221.0

CORRELATION MATRIX

	AH	AI	AP	R	AJ
AH ITEM29	1.0000				
AI ITEM30	.5384	1.0000			
AP ITEM37	.1346	.1989	1.0000		
R ITEM13	.3150	.1557	.1951	1.0000	
AJ ITEM31	.3087	.1393	-.0539	.1464	1.0000
AX ITEM47	.2333	.2528	.1408	.1115	.0784

OF CASES = 221.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	2.8401	1.9005	3.4072	1.5068	1.7929	.2784

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	.1930	-.0539	.5384	.5922	-9.9950	.0170

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
AH ITEM29	13.9864	5.2862	.5548	.3935	.4040
AI ITEM30	13.8552	5.8153	.4267	.3216	.4674
AP ITEM37	13.6335	6.9696	.1729	.0853	.5627
R ITEM13	14.2443	6.0764	.2979	.1297	.5182
AJ ITEM31	15.1403	5.3030	.2118	.1098	.5936
AX ITEM47	14.3439	6.0357	.2534	.0862	.5386

RELIABILITY COEFFICIENTS 6 ITEMS

ALPHA = .5616 STANDARDIZED ITEM ALPHA = .5893

VARIABLE LABELS BN 'ITEM63' BM 'ITEM62' BD 'ITEM53' M 'ITEM8'.

RELIABILITY VARIABLES BN BM BD M

/MODEL=ALPHA

/SCALE(FACTR5.8)=BN TO M

/SUMMARY=MEANS CORR TOTAL

/STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACTR5.8)

		MEAN	STD DEV	CASES
1.	BN ITEM63	3.4836	.6309	488.0
2.	BM ITEM62	3.4918	.6472	488.0
3.	BD ITEM53	3.2910	.7059	488.0
4.	M ITEM8	3.2971	.7334	488.0

CORRELATION MATRIX

	BN	BM	BD	M
BN ITEM63	1.0000			
BM ITEM62	.7741	1.0000		
BD ITEM53	.1905	.1446	1.0000	
M ITEM8	.1193	.1587	.1658	1.0000

OF CASES = 488.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	3.3909	3.2910	3.4918	.2008	1.0610	.0125

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	.2588	.1193	.7741	.6548	6.4902	.0584

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
BN ITEM63	10.0799	1.9094	.5232	.6058	.3570
BM ITEM62	10.0717	1.8860	.5147	.6039	.3593
BD ITEM53	10.2725	2.2480	.2237	.0575	.5960
M ITEM8	10.2664	2.2492	.1967	.0466	.6229

RELIABILITY COEFFICIENTS 4 ITEMS

ALPHA = .5660 STANDARDIZED ITEM ALPHA = .5828

VARIABLE LABELS AU 'ITEM44' AV 'ITEM45' AW 'ITEM46' BL 'ITEM61' BH
ITEM57'.

RELIABILITY VARIABLES AU AV AW BL BH

/MODEL=ALPHA

/SCALE(FACTR6.8)=AU TO BH

/SUMMARY=MEANS CORR TOTAL

/STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACTR6.8)

		MEAN	STD DEV	CASES
1.	AU ITEM44	3.3362	.6383	458.0
2.	AV ITEM45	3.3734	.6501	458.0
3.	AW ITEM46	2.1681	1.1497	458.0
4.	BL ITEM61	3.0197	.6662	458.0
5.	BH ITEM57	3.3668	.7252	458.0

CORRELATION MATRIX

	AU	AV	AW	BL	BH
AU ITEM44	1.0000				
AV ITEM45	.8041	1.0000			
AW ITEM46	.3581	.3198	1.0000		
BL ITEM61	.2880	.2609	.1100	1.0000	
BH ITEM57	.4656	.4422	.2329	.1436	1.0000

OF CASES = 458.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	3.0528	2.1681	3.3734	1.2052	1.5559	.2664

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	.3425	.1100	.8041	.6941	7.3130	.0373

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
AU ITEM44	11.9279	4.5309	.6878	.6760	.5346
AV ITEM45	11.8908	4.5964	.6416	.6541	.5504
AW ITEM46	13.0961	3.9251	.3426	.1358	.7219
BL ITEM61	12.2445	5.5856	.2471	.0854	.6941
BH ITEM57	11.8974	4.9063	.4280	.2340	.6279

RELIABILITY COEFFICIENTS 5 ITEMS

ALPHA = .6768 STANDARDIZED ITEM ALPHA = .7226

VARIABLE LABELS BA 'ITEM50' BI 'ITEM58' AE 'ITEM26' BB 'ITEM51' AZ
ITEM49' AM 'ITEM34' N 'ITEM9'.

RELIABILITY VARIABLES BA BI AE BB AZ AM N
/MODEL=ALPHA
/SCALE(FACTR7.8)=BA TO N
/SUMMARY=MEANS CORR TOTAL
/STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACTR7.8)

		MEAN	STD DEV	CASES
1.	BA ITEM50	3.0248	.6775	484.0
2.	BI ITEM58	2.8678	.7387	484.0
3.	AE ITEM26	3.3554	1.3226	484.0
4.	BB ITEM51	3.1591	.5474	484.0
5.	AZ ITEM49	3.2851	.6604	484.0
6.	AM ITEM34	2.7975	.8039	484.0
7.	N ITEM9	3.1157	.8184	484.0

CORRELATION MATRIX

	BA	BI	AE	BB	AZ	AM
BA ITEM50	1.0000					
BI ITEM58	.3499	1.0000				
AE ITEM26	.3159	.2283	1.0000			
BB ITEM51	.3243	.2877	.0905	1.0000		
AZ ITEM49	.3451	.0902	.1066	.2751	1.0000	
AM ITEM34	.3552	.3070	.2664	.2945	.0349	1.0000
N ITEM9	.0695	.0870	-.0476	.2407	.1036	.1647

RELIABILITY ANALYSIS - SCALE (FACTR7.8)

OF CASES = 484.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	3.0865	2.7975	3.3554	.5579	1.1994	.0422

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	.2043	-.0476	.3552	.4028	-7.4567	.0146

ITEM-TOTAL STATISTICS

	SCALE	SCALE	CORRECTED		ALPHA
	MEAN	VARIANCE	ITEM- SQUARED		
	IF ITEM	IF ITEM	TOTAL	MULTIPLE	IF ITEM
	DELETED	DELETED	CORRELATION	CORRELATION	DELETED
BA ITEM50	18.5806	7.4034	.5234	.3276	.4954
BI ITEM58	18.7376	7.6598	.3881	.1948	.5326
AE ITEM26	18.2500	6.2500	.2711	.1487	.6131
BB ITEM51	18.4463	8.2145	.4073	.2330	.5417
AZ ITEM49	18.3202	8.4252	.2428	.1725	.5776
AM ITEM34	18.8079	7.3150	.4210	.2360	.5176
N ITEM9	18.4897	8.4989	.1307	.0813	.6160

RELIABILITY COEFFICIENTS 7 ITEMS

ALPHA = .5941 STANDARDIZED ITEM ALPHA = .6424

VARIABLE LABELS AT 'ITEM43' AN 'ITEM35' BJ 'ITEM59'.

RELIABILITY VARIABLES AT AN BJ

/MODEL=ALPHA

/SCALE(FACTR8.8)=AT AN BJ

/SUMMARY=MEANS CORR TOTAL

/STATISTICS=DESC CORR.

RELIABILITY ANALYSIS - SCALE (FACTR8.8)

		MEAN	STD DEV	CASES
1.	AT ITEM43	3.0568	1.1850	546.0
2.	AN ITEM35	2.4542	1.3030	546.0
3.	BJ ITEM59	2.2289	.9010	546.0

CORRELATION MATRIX

	AT	AN	BJ
AT ITEM43	1.0000		
AN ITEM35	.1092	1.0000	
BJ ITEM59	.0497	-.0168	1.0000

OF CASES = 546.0

ITEM MEANS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	2.5800	2.2289	3.0568	.8278	1.3714	.1832

INTER-ITEM

CORRELATIONS	MEAN	MINIMUM	MAXIMUM	RANGE	MAX/MIN	VARIANCE
	.0474	-.0168	.1092	.1261	-6.4853	.0032

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
AT ITEM43	4.6832	2.4701	.1190	.0146	-.0320
AN ITEM35	5.2857	2.3219	.0750	.0124	.0914
BJ ITEM59	5.5110	3.4393	.0199	.0030	.1962

RELIABILITY COEFFICIENTS 3 ITEMS

ALPHA = .1403 STANDARDIZED ITEM ALPHA = .1298

Appendix F. Regression for Satisfaction and Commitment

SPSS/PC+ The Statistical Package for IBM PC

TRANSLATE FROM='C:\LYLE3\LIST10.WK1'.

Data written to the active file.
20 variables and 562 cases written.

MISSING VALUES B, E (9).

VARIABLE LABELS B 'SCH LEVEL' E 'PLAN' F 'FACTOR8.1' I 'FACTOR8.4'
K 'FACTOR8.6' N 'FACTOR8.2' O 'FACTOR8.3' P 'FACTOR8.5' Q 'FACTOR8.7'.

REGRESSION VARIABLES=F I K N O P Q
/DEPENDENT=F/STEPWISE.

*** MULTIPLE REGRESSION ***

Listwise Deletion of Missing Data

Equation Number 1 Dependent Variable.. F FACTOR8.1

Block Number 1. Method: Stepwise Criteria PIN .0500 POUT .1000

Variable(s) Entered on Step Number
1.. O FACTOR8.3

Multiple R .52908
R Square .27992
Adjusted R Square .27862
Standard Error .39489

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	33.64418	33.64418
Residual	555	86.54713	.15594

F = 215.74969 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
O FACTOR8.3	.528094	.035953	.529076	14.688	.0000
(Constant)	1.676393	.100717		16.645	.0000

----- Variables not in the Equation -----

Variable	Beta In	Partial	Min Toler	T	Sig T
I FACTOR8.4	.242715	.269238	.886050	6.580	.0000
K FACTOR8.6	.173731	.201488	.968558	4.842	.0000
N FACTOR8.2	.279583	.308711	.877931	7.639	.0000
P FACTOR8.5	.253675	.286029	.915474	7.026	.0000
Q FACTOR8.7	.259098	.287606	.887258	7.068	.0000

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. F FACTOR8.1

Variable(s) Entered on Step Number

2.. N FACTOR8.2
 Multiple R .59038
 R Square .34855
 Adjusted R Square .34620
 Standard Error .37594

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	41.89232	20.94616
Residual	554	78.29899	.14133

F = 148.20334 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
O FACTOR8.3	.430594	.036530	.431394	11.787	.0000
N FACTOR8.2	.212480	.027814	.279583	7.639	.0000
(Constant)	1.317629	.106767		12.341	.0000

----- Variables not in the Equation -----

Variable	Beta In	Partial	Min Toler	T	Sig T
I FACTOR8.4	.216633	.251334	.804543	6.106	.0000
K FACTOR8.6	.147670	.179084	.862617	4.281	.0000
P FACTOR8.5	.220334	.258737	.830437	6.299	.0000
Q FACTOR8.7	.218299	.251091	.814561	6.100	.0000

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. F FACTOR8.1

Variable(s) Entered on Step Number

3.. P FACTOR8.5

Multiple R .62623
 R Square .39216
 Adjusted R Square .38886
 Standard Error .36347

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	47.13401	15.71134
Residual	553	73.05730	.13211

F = 118.92541 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
O FACTOR8.3	.377391	.036314	.378093	10.392	.0000
N FACTOR8.2	.189080	.027146	.248794	6.965	.0000
P FACTOR8.5	.197439	.031345	.220334	6.299	.0000
(Constant)	.864528	.125816		6.871	.0000

----- Variables not in the Equation -----

Variable	Beta In	Partial	Min Toler	T	Sig T
I FACTOR8.4	.200771	.240438	.771345	5.820	.0000
K FACTOR8.6	.122907	.153096	.822003	3.640	.0003
Q FACTOR8.7	.196154	.232188	.782525	5.608	.0000

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. F FACTOR8.1

Variable(s) Entered on Step Number

4.. I FACTOR8.4

Multiple R .65368
 R Square .42730
 Adjusted R Square .42315
 Standard Error .35313

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	4	51.35748	12.83937
Residual	552	68.83383	.12470

F = 102.96291 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
O FACTOR8.3	.320562	.036607	.321158	8.757	.0000
N FACTOR8.2	.175087	.026483	.230381	6.611	.0000
P FACTOR8.5	.183863	.030542	.205184	6.020	.0000
I FACTOR8.4	.198625	.034130	.200771	5.820	.0000
(Constant)	.555474	.133273		4.168	.0000

----- Variables not in the Equation -----

Variable	Beta In	Partial	Min Toler	T	Sig T
K FACTOR8.6	.094837	.120180	.768910	2.842	.0047
Q FACTOR8.7	.165896	.199235	.743051	4.772	.0000

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. F FACTOR8.1

Variable(s) Entered on Step Number

5.. Q FACTOR8.7

Multiple R .67084
 R Square .45003
 Adjusted R Square .44504
 Standard Error .34636

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	5	54.08981	10.81796
Residual	551	66.10150	.11997

F = 90.17492 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
O FACTOR8.3	.287124	.036583	.287658	7.849	.0000
N FACTOR8.2	.157507	.026236	.207250	6.004	.0000
P FACTOR8.5	.169951	.030098	.189658	5.647	.0000
I FACTOR8.4	.170468	.033992	.172310	5.015	.0000
Q FACTOR8.7	.156857	.032868	.165896	4.772	.0000
(Constant)	.343277	.138075		2.486	.0132

----- Variables not in the Equation -----

Variable	Beta In	Partial	Min Toler	T	Sig T
K FACTOR8.6	.081485	.104954	.741961	2.475	.0136

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. F FACTOR8.1

Variable(s) Entered on Step Number

6.. K FACTOR8.6

Multiple R .67534
 R Square .45609
 Adjusted R Square .45016
 Standard Error .34476

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	6	54.81795	9.13632
Residual	550	65.37336	.11886

F = 76.86584 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
O FACTOR8.3	.283669	.036441	.284196	7.784	.0000
N FACTOR8.2	.153609	.026162	.202121	5.871	.0000
P FACTOR8.5	.162065	.030128	.180857	5.379	.0000
I FACTOR8.4	.158551	.034176	.160263	4.639	.0000
Q FACTOR8.7	.149619	.032846	.158241	4.555	.0000
K FACTOR8.6	.060649	.024504	.081485	2.475	.0136
(Constant)	.267608	.140796		1.901	.0579

End Block Number 1 POUT = .100 Limits reached.

REGRESSION VARIABLES=F I K N O P Q
 /DEPENDENT=P/STEPWISE.

***** MULTIPLE REGRESSION *****

Listwise Deletion of Missing Data

Equation Number 1 Dependent Variable.. P FACTOR8.5

Variable(s) Entered on Step Number

1.. F FACTOR8.1

Multiple R .38605
 R Square .14904
 Adjusted R Square .14750
 Standard Error .47906

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	22.30812	22.30812
Residual	555	127.37373	.22950

F = 97.20220 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
F FACTOR8.1	.430819	.043698	.386053	9.859	.0000
(Constant)	2.038880	.138496		14.722	.0000

----- Variables not in the Equation -----

Variable	Beta In	Partial	Min Toler	T	Sig T
I FACTOR8.4	.031362	.031253	.845036	.736	.4621
K FACTOR8.6	.085687	.089641	.931312	2.118	.0346
N FACTOR8.2	.071351	.069820	.814837	1.647	.1000
O FACTOR8.3	.120101	.110480	.720078	2.616	.0091
Q FACTOR8.7	.068175	.067489	.833916	1.592	.1119

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. P FACTOR8.5

Variable(s) Entered on Step Number

2.. O FACTOR8.3

Multiple R .39928
 R Square .15942
 Adjusted R Square .15639
 Standard Error .47656

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	23.86281	11.93141
Residual	554	125.81903	.22711

F = 52.53576 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
F FACTOR8.1	.359908	.051226	.322510	7.026	.0000
O FACTOR8.3	.133779	.051131	.120101	2.616	.0091
(Constant)	1.891648	.148822		12.711	.0000

----- Variables not in the Equation -----

Variable	Beta In	Partial	Min Toler	T	Sig T
I FACTOR8.4	.013353	.013204	.667881	.311	.7563
K FACTOR8.6	.080882	.085040	.690845	2.007	.0452
N FACTOR8.2	.054794	.053263	.651453	1.254	.2103
Q FACTOR8.7	.052123	.051289	.660515	1.208	.2277

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. P FACTOR8.5

Variable(s) Entered on Step Number

3.. K FACTOR8.6

Multiple R .40682
 R Square .16550
 Adjusted R Square .16098
 Standard Error .47526

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	24.77272	8.25757
Residual	553	124.90913	.22588

F = 36.55808 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
F FACTOR8.1	.338816	.052156	.303610	6.496	.0000
O FACTOR8.3	.128943	.051049	.115759	2.526	.0118
K FACTOR8.6	.067181	.033472	.080882	2.007	.0452
(Constant)	1.772946	.159766		11.097	.0000

----- Variables not in the Equation -----

Variable	Beta In	Partial	Min Toler	T	Sig T
I FACTOR8.4	.002447	.002408	.650140	.057	.9549
N FACTOR8.2	.050981	.049687	.630560	1.169	.2430
Q FACTOR8.7	.044818	.044086	.641491	1.037	.3003

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. P FACTOR8.5

End Block Number 1 PIN = .050 Limits reached.

VITAE
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Education

- Ed.D. Educational Leadership, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1998.
- C.A.S. Educational Leadership, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1997.
- M.S. School Administration, University of Virginia, Charlottesville, Virginia, 1987.
- B.A. Elementary Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1980.

Experience

- 1997-
Present Assistant Superintendent For Administrative Services,
Henrico County Public Schools, Henrico County, Virginia.
- 1995-1997 Assistant Superintendent for Human Resource Services and
Staff Development, Danville Public Schools, Danville, Virginia.
- 1993-1995 Director of Personnel and Staff Development, Danville Public
Schools, Danville, Virginia.
- 1990-1993 Administrative Assistant to the Superintendent, Danville Public
Schools, Danville, Virginia.

- 1987-1990 Coordinator of Middle School Education, Danville Public Schools, Danville, Virginia.
- 1981-1987 Mathematics and Science Teacher, Danville Public Schools, Danville, Virginia.
- 1980-1981 Area Foreman, Radford Army Ammunition Plant, Radford, Virginia.