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ABSTRACT

Project WATCH! (Writing Across the Curriculum Hawks!) was the 1999-2000 schoolwide action research project at the A.D. Henderson University School grades K-8. The study question, "How can teachers build schoolwide capacity to support improved student writing across the curriculum?", examined whole-school collaboration where all teachers understand and are able to support the writing curriculum. The study was conducted through several phases: (1) the overall design of the project action plan; (2) implementation of three action research study groups who collaboratively supported the writing curriculum through actions and activities; (3) professional development to support teachers in changing instructional practices; (4) support data-driven decisions through the collection and analysis of data; and (5) coordinate the findings of the study and implement new actions to support schoolwide high-level writing performance. Data were gathered using four major evaluation measures: Pre/Post Writing Support Questions, Pre/Post Writing Assessment, Implementation logs recording FCAT Writes! Poster and Proofreading Marks Guide Use; teacher observations and reflections, the Florida Comprehension Assessment Test administered to fourth and eighth grade students, and observations and reflections by the FAU liaison and on-site coordinator. Teacher's findings indicate a general improvement in writing performance of students in kindergarten through eighth grade. Exemplary teaching practices included increased vocabulary development, use of the FCAT Writes! rubrics for modeling and/or grading, definitions of the types of writing, focus on the 5 paragraph essay format, ongoing review of literary devices, linking examples of quality literature to student writing, use of a student/teacher feedback format, use of peer conferencing, and the use of a NCS Staff Development/"Florida Writes!" CD-ROM program. The analysis of teacher reflections and observations, collected throughout the year, supported the accomplishment of one of the major goals of this study--to develop a collaborative learning organization. In conclusion, student writing was improved by implementing the schoolwide focus on improving writing performance. Contains 16 references and 6 unnumbered tables of data. (RS)

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Moving From I to Us: The Power of Action Research to Improve Students' Writing Performance.

by

A. Christine Miller and Lorraine Cross

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**American Educational Research Association
2001 Conference Seattle
Paper Presentation**

Moving From I to Us

**The Power of Action Research to Improve
Students' Writing Performance**

A study conducted at A.D. Henderson School through a Professional Development School Partnership between Florida Atlantic University/A.D. Henderson University School and the School Districts of Martin, Palm Beach, and St. Lucie Counties, Florida

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**Project WATCH! Writing Across the Curriculum Hawks
1999-2000**

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Abstract

Project WATCH! (Writing Across the Curriculum Hawks!) was the 1999-2000 schoolwide action research project. This project involved all classroom and specialist teachers at the A.D. Henderson University School grades K-8. The study question, *How can teachers build schoolwide capacity to support improved student writing across the curriculum?*, examined whole-school collaboration where all teachers understand and are able to support the writing curriculum and each other's efforts to provide the best possible writing instruction for all students.

The study was conducted through several phases: Phase I included the overall design of the project action plan. The second phase was the implementation of three action research study groups who collaboratively supported the writing curriculum through actions and activities. The third phase involved professional development to support teachers in changing instructional practices. The fourth phase was to support data-driven decisions through the collection and analysis of data. The final phase was to coordinate the findings of the study and implement new actions to support schoolwide high-level writing performance.

The collection of data sources provided a comprehensive picture of how students were performing and of what students and teachers were experiencing as instructional practices were changing as measured by four major evaluation measures: Pre/Post Writing Support Questions, Pre/Post Writing Assessment, Implementation logs recording FCAT Writes! Poster and Proofreading Marks Guide Use; teacher observations and reflections, the Florida Comprehension Assessment Test administered to fourth and eighth grade students, and observations and reflections by the FAU liaison and on-site coordinator.

Teacher's findings indicate a general improvement in writing performance of students in kindergarten through eighth grade. Exemplary teaching practices included increased vocabulary development, use of the FCAT Writes! rubrics for modeling and/or grading, definitions of the types of writing, focus on the 5 paragraph essay format, ongoing review of literary devices, linking examples of quality literature to student writing, use of a student/teacher feedback format, use of peer conferencing, and the use of a NCS Staff Development/*Florida Writes!* CD-ROM program. The FCAT Writes! indicated an increase in combined scores in the fourth grade expository writing from 3.2 to 3.4 and from 3.9 to 4.5 in the eighth grade.

The analysis of teacher reflections and observations, collected throughout the year, supported the accomplishment of one of the major goals of this study to develop a collaborative learning organization where all teachers understand and are able to support the writing curriculum and each other's efforts to provide the best possible writing instruction for all students.

In conclusion, student writing was improved by implementing a schoolwide focus on improving writing performance using exemplary teacher practices, teacher collaboration, action research study groups, professional development, and consistent expectations of writing in both content and language arts classes, and use of FCAT Writes! Poster and Proofreading Marks Guide.

With a joint effort between the content and language arts teachers, the students are well prepared in what is expected in writing. I do believe that proper writing conventions have been embedded into their brain from this schoolwide effort to improve writing.

(ADHUS Teacher, Daphne Panzer)

Problem Formation

Alexander D. Henderson University School, established in 1968, is a public school district functioning as a laboratory school located on the campus of Florida Atlantic University in Boca Raton, Florida. This developmental research school (DRS) is structured to provide a safe and secure environment that encourages and develops the full potential of the student academically, intellectually, emotionally, socially, and physically. The 464 kindergarten through eighth grade students who attend ADUS mirror the demographics of the surrounding school districts with attendance determined through lottery. The 28-member faculty supports an exemplary educational program for the student and promotes the schools engagement in educational research and curriculum development, and provides service to public experiences, student teaching and field-testing. The master teachers serve as mentors in this model school environment. The research and development function supports the mission, philosophy, vision and the ADHUS School Improvement Plan for 1999-2000.

ADHUS was selected in January of 1997, as the eighth professional development school in the GATE program. A teacher was selected to be the on-site Coordinator and in the fall a professor was assigned as the University Liaison. A GATE committee comprised of faculty representative, a parent representative and administrators was formed to determine areas in student achievement in which to focus an action research project. Mathematics, reading, and writing were suggested as they were areas of student performance concern as noted in the school improvement plan.

Although the *Florida Writes!* (currently called FCAT Writes!) Statewide assessment scores had been number one in the state for 1996 in fourth and eighth grade, the combined scores for 1997, still ranking as one of the highest in the state, had decreased in the fourth grade from 3.4 to 3.3 and in eighth grade from 4.0 to 3.6. Thus in 1997, the GATE committee decided to implement, Project WATCH! an acronym for "Writing Across the Curriculum Hawks"! The study was based on the question: Will providing staff development schoolwide, K-8 in *FCAT Writes!!* Rubrics (Focus, Organization, Support and Conventions) improve student achievement in writing if these rubrics are implemented in classroom instruction and evaluation? The overall results of this study showed that through increased efforts in staff development, student performance in writing increased. In 1997 the combined scored improved from a 3.3 to 3.8 in 1998 and in the eighth grade from 3.6 to 3.8. Although the majority of the teachers continued to utilize strategies learned through research in 1997-1998, Project WATCH! was not continued as a formal action research initiative for the 1998-1999 school year. However, in the beginning of 1999-2000 school year,

teachers decided that they wanted to continue a more formal, concentrated, schoolwide action research study to continue to improve students' writing performance by continuing Project WATCH!

The project began by considering the implications from the 1997-1998 study that provided a focus for the continuation of Project WATCH! for the 1999-2000 school year: improve student writing in all classrooms schoolwide, develop additional strategies for teaching support and conventions, incorporate graphic organizers in writing strategies, devote more time to writing, utilize the "peer conferencing" model, use the FCAT Writes posters in all classrooms, use of technology to support the recording of data in an authentic and meaningful way, and begin study groups by grade level or divisions to learn more about the writing process, work with content and specialists' teachers about writing forms to support writing curriculum.

Chris Miller, the University Liaison and Lorraine Cross the On-Site GATE Coordinator worked with the ADHUS faculty to frame the research to address a school need to provide high-quality writing instruction for all students. The focus for this study, that examined whole-school collaboration in support of the writing curriculum, sought to answer the question **How can teachers build schoolwide capacity to support improved student writing across the curriculum?** Thus, this study provides valuable data by looking at what happens in teaching and learning when a school implements whole-school reform that supports job-embedded staff development, schoolwide improvement in an academic area, collaborative inquiry, and a data-based driven curriculum.

Review of the Literature

This study on implementing the schoolwide action research framework at ADHUS was largely based on the work by Calhoun (1994) who shares that building schools of inquiry through schoolwide action research is school improvement in three ways. First the problem-solving capabilities of the organization improve through repeated cycles of research as a collegial group. The second implies improvement in equity for all students, not just a few. The third implication of schoolwide action research is that the whole school community studies the academic area of concern in-depth.

As suggested by Calhoun, the Schoolwide Action Research Framework is designed for continuous confrontation with data on the health of the school community. The processes of action research involve movement through phases of collective inquiry: faculty members choose a focus area, collect and analyze data, study professional literature and best practices, and take action. The researcher completes the cycle over and over until changes in student learning become realized or questions within the focus area are exhausted.

Collective inquiry is nurtured by the formation of study groups. A characteristic of high performing schools is that they have been able to break down barriers of isolation to form collaborative learning organizations (Fullan, 1996; Glickman, 1993; Sagor, 1992). As educators begin the hard work of examining and changing teaching practices through the process of action research, they need to know that they are not alone – that other educators are experiencing similar joys, concerns, and frustrations as they perform the job of

educating students. The study group serves as an integral element of the action research process in which the researcher is able to draw from the collective expertise of peers and other professionals to promote motivation, shared instructional strategies, tangible support, peer trust, experimentation, professional development, accountability, and celebration.

The origin of formal action research concept of action research as an initiative was largely based on the work of Kurt Lewin and his colleagues in their development of a collective problem-solving cycle for improving life in organizations (1947, 1948). Lewin and others who developed the action research concept emphasized collective rather than individualistic problem solving and study. Lewin (1947) advocated group work as part of the action research process because of the power of group discussion and interaction in producing commitment and because of the support for changes in individual attitudes and behavior provided by group interaction. As defined by Lewin action research is a three-step process of (1) planning, which involves "reconnaissance or fact-finding"; (2) taking actions; and (3) fact-finding about the results of the action (1948). The failure of the organization to measure the effects of actions designed to lead to improved conditions deprives workers (teachers, administrators, general educators, and students) "of their legitimate desire for satisfaction on a realistic basis" (Lewin, 1948, p. 202).

Corey (1949, 1953) was one of the first to officially promote action research in the field of education. His definition of action research was the "process by which practitioners attempt to study their problems scientifically in order to guide, correct, and evaluate their decisions and actions" (1953, p.6). His thesis was that school practitioners would make better decisions and implement more effective practices if they conducted research as part of their decision-making process and used the results of such research as a guide to selection or modification of their practice. The value of action research for Corey was "determined by the extent to which findings lead to improvement in the practices of the people engaged in the research? (p. 13). Through the involvement of teachers, administrators, and supervisors in studying their work (teaching) and in applying these findings to their school setting, changes would be more likely to occur.

Today, scholars such as Glickman and Goodlad have promoted the benefits of action research in school improvement. Glickman in support of the use of schoolwide action research for school renewal describes a framework of democratic governance, educational focus, and action research as integral dimensions of renewing education (1990, 1993). Within this framework, the principles that guide shared decision making within the organization are expressed in a school "charter," the focus on teaching and learning is expressed in a school "covenant," and the school faculty uses the "critical study process" of action research to assess the results of its current programs on commonly valued goals. Glickman found that effective schools demonstrate improved achievement over time; they regularly collect and use data to assess student performance (1990, p. 253). Goodlad observed that the action research process of identifying problem areas and ideas worth pursuing, gathering relevant data, discussing these data, formulating solutions, determining actions, and assessing the effects

of these actions is a capacity currently "lacking in most schools" (1984, p. 276).

Study Procedures

This 1999-2000 focus for Project WATCH! study was a schoolwide effort to continue to improve writing skills through all subjects and to develop a spiral writing curriculum supported by all teachers. The faculty moved through the cyclic process of planning, data gathering, data analysis, taking action, assessing those actions and making changes through job-embedded staff development and collaborative study groups that encompassed all faculty.

Since this was a continuation of the 1997-1998 Project WATCH! Study, the current inquiry began with a review of the previous study findings and recommendations: work on improving student writing in all classroom schoolwide; develop additional strategies for teaching support and conventions; incorporate graphic organizers in writing strategies; devote more time to writing; utilize the "peer conferencing" model; use *FCAT Writes!!* posters in all classrooms; use technology to support the recording of data and; begin study groups to learn more about the writing process.

Evident was the need to work on a schoolwide effort to build capacity for teachers to collaboratively support the writing curriculum both in the language arts and content areas. *A major goal of this study was to develop a collaborative learning organization to break down barriers of teacher isolation, to create an environment where all teachers understand and are able to support the writing curriculum and each other's efforts to provide the best possible writing instruction for all students.*

The study was conducted through several phases: Phase I included the overall design of the project action plan. The second phase was the implementation of three action research study groups who collaboratively supported the schoolwide writing curriculum through actions and activities. The third phase involved professional development to support teachers in changing instructional practices. The fourth phase was to support data-driven decisions through the collection and analysis of data. The final phase was to coordinate the findings of the study and implement new actions to support schoolwide high-level writing performance.

Phase I was completed in September by the on-site coordinator and the FAU University liaison to provide an overall action plan for conducting the study. The following chart gives an overview of the initial action plan of the year activities to support the collective inquiry:

1999-2000 Project WATCH/ Activities		
Date	Activity	Participants
September	Review of previous study findings and recommendations	Coordinator and Liaison
September – May	Three Collaborative Study Groups	Language Arts, Kindergarten, Content Teachers
September	<i>Professional Development 1: 9/16/99</i> Pre Writing Support Questions (Identifying issues that need to be addressed to support the writing curriculum??) Action Research Overview	All teachers, Interns, Administrators
September	<i>Pre Writing Assessment</i>	Language Arts, Kindergarten
October - March	<i>Professional Development 2:</i> <i>ACEE Center</i> 10/08/99 FCAT I, II 10/29/99 FCAT III and FCAT Writes! 3/29/00 FCAT IV	Language Arts Study Group, Liaison, On-Site Coordinator
October	<i>Professional Development 3: 10/5/99</i> Study group structure Understanding Personal Group Work Styles Analyzing Baseline Question Data	
October	Action Plans Written	All Study Groups
September - May	Collaborative Study Groups Ongoing throughout the year worked on action plans Teaching Strategies Data Collection and Analysis Pre/Post Writing Questions FCAT Poster & Proofreading Guide Pre/Post Using <i>FL Writes!</i> Rubric Job-embedded Staff Development	All Study Groups
November	<i>Professional Development 4: 11/99</i> Effective writing strategies to support the writing curriculum	Content Teachers
April	<i>Professional Development 5: 4/20/00</i> Post Writing Question Data Implementation Log Action Research Progress Schoolwide Writing Scope & Sequence Content supported Writing Activities Schoolwide MLA Style Confidential Student Articulation Folder Student Profile Components Literacy Folder Writing Portfolio	All Teachers, Administrator
May	<i>Post Writing Assessment</i>	Language Arts, Kindergarten
May-June	<i>Final Summary of Study</i>	FAU Liaison, On-Site Coordinator

The second phase of the study established three study groups, Language Arts, Kindergarten, and Content Area Teachers, that served as collective sharing and centers of inquiry where the discussion was focused on studying teaching practices and student performance in writing. Throughout the year, the groups collectively developed action or work plans to guide the following activities and tasks to be accomplished: collecting, classifying, and analyzing data on the students and on the learning environment; locating and using outside information about student standards, teaching practices and how students learn best; designing instructional strategies to support writing; developing a spiral writing curriculum; participating in staff development; understanding changes in student performance; articulating findings schoolwide.

Each group worked both individually in their area of expertise and as a total school group throughout the year as findings were shared and collaboration needed to design the total school writing curriculum to be supported by all teachers. Study groups worked in a cyclic process to conduct actions and activities that were revised throughout the year in light of the ever changing, collection of information on teaching and learning to target the specific needs and concerns of each study group and eventually to promote schoolwide collaboration.

The actions of the Kindergarten study group as shown in the following chart were focused on studying how to provide a curriculum that supports a foundation for writing skills for all students.

1999-2000 Project WATCH! Action Plan		
Kindergarten Action Research Study Group		
Actions		Date Completed
1	Conduct and analyze a pre writing assessment in narrative and expository writing	September - January
2	Evaluate current writing teaching practices	September
2	Develop effective instructional strategies	September - October
3	Implement effective writing strategies into classroom practices, revise if necessary based on student performance.	September - February
4	Develop 10 writing lessons each on Narrative and expository writing including a broad view of how the kindergarten teachers set the foundation for writing and share with the staff	October - February
5	Review Writing Scope & Sequence related to Sunshine State Standards Grade Level Expectancies and the Kindergarten curriculum	January - April
6	Infuse technology strategies into writing instruction	September - May
7	Conduct and analyze a post writing test	May
8	Record pre and post test results on data disks	May - June
9	Select student writing samples to place in writing portfolios to be passed on to the first grade teachers	June

The focus of the Language Arts study group was to examine the practices of how Language Arts teachers are teaching narrative, expository, persuasive, and descriptive writing. The following chart shows the action plan for the Language Arts study group.

1999-2000 Project WATCH! Action Plan		
Language Arts Action Research Study Group		
Actions		Date Completed
1	Learn and implement collaborative group facilitation leadership skills	September - May
2	Summarize Fall 1999 base-line data and share with team/grade level teachers.	September
3	Conduct and analyze a pre writing assessment in narrative and expository writing	September
4	Design and implement a schoolwide spiral Writing Scope & Sequence	September - April
5	Record use of FCAT Writing Poster and Proofreading Marks with writing assignments	Three time periods in the year
6	Develop and implement a Confidential Student Articulation Folder including: Student Profile Components; Literacy Folder and Writing Portfolio	January - May
7	Continually readdressed pre writing support questions	September - May
8	Develop a writing resources tool	February - May
9	Develop a grade level glossary of Literary Terms	September - March
10	Supplemental Reading Materials to Support the Writing Curriculum	January - May
11	Conduct and analyze a post writing assessment in narrative and expository writing	May
12	Record pre and post test results on data disks	May - June
13	Select student writing samples to place in writing portfolios to be passed on to the first grade teachers	June

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The third study group, curriculum or content teachers completed the following actions to support the schoolwide writing curriculum:

1999-2000 Project WATCH! Action Plan		
Content Teachers Action Research Study Group		
Actions		Date Completed
1	Learn and implement collaborative group facilitation leadership skills	September - May
2	Design and implement lessons to support the schoolwide spiral Writing Scope & Sequence	September - April
3	Record use of FCAT Writing Poster and Proofreading Marks with writing assignments	Three time periods in the year
4	Continually readdressed pre writing support questions	September - May
5	Schoolwide MLA format for writing and submitting research papers grades 3-8	January to be continued in 2000-2001

The third phase of the study was to embed staff development into the everyday instructional practices of the teachers. Five staff development inservices were conducted during the year at the school site by the liaison and the coordinator and three off-site sessions in four areas were offered by the Area Center for Educational Enhancement (ACEE).

The first school site staff development session offered to all teachers was conducted in September and provided the focus and baseline data for the year study. Project overviews were shared for the schoolwide focus for writing: *Project WATCH!* as well as an overview for a continuing program in reading. Teachers were asked for their input on the Pre Writing Questions that provided baseline data for actions and activities of each study group. An overview of utilizing Action Research as a framework for this study was presented along with the definition, three types, and phases of the process. The commitments and focus for each study group was discussed (see Appendix A).

Understanding the dynamics of study groups, working styles of the members, and facilitative leadership was the focus of the second schoolwide site staff development (see Appendix B). A session was offered in November for content area teachers to begin gathering effective writing strategies to support the writing curriculum. The April session for all teachers provided an opportunity for teachers to complete to the Post Writing Questions, as well as, share with other what discoveries each study group had made along the way. The findings shared were based on the year-long activities of completing the schoolwide Writing Scope & Sequence, content supported writing activities, data from recording use of FCAT Writing Poster and Proofreading Marks, a grade level glossary of literary terms, supplemental reading materials to support the writing curriculum, and the Confidential Student Articulation Folder containing Student Profile Components of Literacy Folder, and Writing Portfolio. The schoolwide

MLA Style guide was discussed and the decision made to complete next school year.

The Language Arts Study Group, Liaison, and On-Site Coordinator attended five sessions offered throughout the year by the Region V Area Center for Educational Enhancement (ACEE). This staff development was embedded into the work that the ADHUS teachers were accomplishing in changing teaching practices to encompass higher-order thinking skills as measured by the FCAT Writes! Florida Comprehension Assessment Test.

Methods Of Inquiry

Action research is a formative study of progress, requiring regular and frequent data collection so that changes and trends can be seen. The research method used in this study was both qualitative and quantitative collecting data from multiple sources that served the three major purposes: to provide baseline information on students' skills and attitudes; to guide immediate action at the school, classroom, and student level; and to assess progress over time. The collection of data sources provided a comprehensive picture of how students were performing and of what students and teachers were experiencing as instructional practices were changing as measured by four major evaluation measures: Pre/Post Writing Support Questions, Pre/Post Writing Assessment, Implementation logs recording *FCAT Writing!* Poster and Proofreading Marks Guide Use; teacher observations and reflections, the Florida Comprehension Assessment Test administered to fourth and eighth grade students, and observations and reflections by the FAU liaison and on-site coordinator. The following chart indicates the time-line and data collected in each for each of the studies evaluation measures.

Evaluation Measures	Date Completed
Evaluation Measure I: All Staff Pre/Post Writing Support Questions	September & April
Evaluation Measure II: K-8 Language Arts Teachers Pre/Post Writing Assessment: K-4 Narrative & Expository Prompts 5-8 Expository & Persuasive Prompts	September & May
Evaluation Measure III: Content and Specialists Teachers Implementation Log recording <i>FCAT Writing!</i> Poster Use Implementation Log recording Proofreading Marks Guide Use Implementation Log recording use of narrative, expository, descriptive, or persuasive writing prompts and activities by content area teachers	November, January, & April week
Evaluation Measure IV: FCAT Writes: 4 th and 8 th Grade Students	February
Evaluation Measure V: Teacher Observations and Reflections on the Action Research Process Project Coordinators' Observations and Reflections	Ongoing Reflected in Final Report

Data Analysis and Findings

Evaluation Measure I: Pre/Post Writing Support Questions

Henderson staff responded to the Writing Support Questions in September and in April. Teachers drew from this year's experiences to tell the story of how they utilized the components of the *FCAT Writes!!* rubrics (focus, organization, support, and conventions) in teaching/assessment of students' writing; what they noticed about students' writing abilities; how writing assignments/activities are assessed; what types of writing activities are currently used and what additional writing activities might be possible and; how much time is devoted weekly to writing activities? (see Appendix C). These areas of focus provided a framework to guide all actions of each study group to work collaboratively to support the writing curriculum.

Question 1: How do you utilize the components of the *FCAT Writes!!* rubrics (focus, organization, support, and conventions) in your teaching/assessment of students' writing?

The major finding supported by observations from teachers showed an increase in schoolwide use of the *FCAT Writes!* rubrics by content as well as language arts teachers:

A schoolwide emphasis on conventions was made by using the FCAT poster in each classroom. Teachers reminded students to refer to the poster while completing writing assignments.

Content teachers are beginning to include grading for both content and conventions for writing assignments.

The Proofreading Marks Guide is successfully being used by teachers and students to improve writing performance.

Question 2: Why do you notice about your students' writing abilities?

Students' abilities in writing dramatically improved from September to April as observed by the teachers. Comments on the Pre Writing Support Questions were focused on students' exhibiting low-level vocabulary and little knowledge or application of grammar and spelling mechanics. Observations of improved writing skills were noted in the April teacher comments:

Students are really getting into writing.

The proofreading chart has really helped students to recognize and correct errors.

They are getting better at remembering capital letters and periods.

The most significant observation came as a result of all teachers working to provide consistent writing instruction.

With joint effort between the content and language arts teachers, the students are well prepared in what is expected in writing an essay: introduction, body, and conclusion – 5 paragraphs. As a whole, after reminding them to use proper punctuation, capitalization, spelling and grammar, they stated, "we know". I do believe that it has been embedded into their brain from the schoolwide effort in writing.

Even though post-comments indicated a general overall improved writing performance, some students were observed to continue to make the same writing errors. Thus, a recommendation was made to continue the schoolwide emphasis on using the proper conventions.

Question 3: How do you currently assess writing assignments/activities?

The major writing assessment tool used by teachers was the FCAT Writes!! Rubrics. Some teachers expanded the use of the rubrics to all formal writing assignments that require long and short answers. Teachers raised the expectation level for using correct grammar and spelling as well as accurate content information. Many teachers revised test questions to include essay or short answers.

Question 4: What types of writing activities do you currently use in your subject/grade?

The types and number of writing prompts used schoolwide increased during the study year. The pre-comments to this question were very general mentioning writing activities such as written tests, journals, poems, book reviews, pen pals. Post-comments included specific writing prompts in narrative, expository, descriptive, and persuasive writing as given in the following examples:

Narrative:

Use your own concept map to write about your magic seed.

Write a paragraph on the ending of the musical Brigadoon, but write it in the future on what might happen to the characters.

Expository:

Write an essay of the five school success skills covered in this course.

You have been asked to help write a word problem booklet to help students your age to have more practice with word problems in math.

Write a word problem using a menu or cost list involving money.

Descriptive:

After viewing "Struggle for Freedom" how do you feel about the treatment of slaves?

Florida has a wide variety of ocean and animal life. Write a paragraph about your favorite Florida animal.

Persuasive

Write a letter to Jeb Bush persuading him to build a high school for Henderson.

Convince someone of the importance of eating properly.

Question 5: What might be some additional possibilities for writing activities in your subject/grade?

The following reflect the many suggestions teachers offered for expanding writing activities: pen pals, math journals about math applications and careers, journals, memoirs, novels with chapters, current events, and holiday writing.

Question 6: How much time do you currently devote weekly to writing activities?

This data was difficult to analyze due to the manner that it was requested. Time spent on writing activities appeared to have a slight increase. More significantly, in post-comments teachers noted implementation of writing activities that were of high quality, meaningful to the content, as well as, more directly correlated to supporting the writing curriculum. Teachers were also more specific in noting the type and setting of writing activities. If a more accurate measure of the actual amount of time spent in writing activities is deemed important, a recommendation would be to have the teachers keep a time log for three or four weeks in the year on actual time spent on writing activities.

Evaluation Measure II: Pre/Post Writing Assessment

Eight teachers representing all grade levels, kindergarten through eighth grade, administered pre/post writing assessments (see Appendix D). The kindergartens through fourth grade teachers use narrative and expository writing prompts and the fifth through eighth grade teachers' expository and persuasive prompts.

The purpose of collecting writing samples was to provide information about how the student was currently performing and what writing strategies have proved to be most effective. After collecting the baseline and post-test writing samples, teachers responded to the four questions listed below for applicable writing style of narrative, expository, descriptive, or persuasive.

1. What did I discover about students' writing skills in the baseline writing samples? (concerns as well as positive performance).
2. Did I make any changes in my teaching practices based on my discovery? If so, what were they?
3. What did I discover about my students' writing skills when comparing the baseline and posttest data?
4. Is there anything that I would change in my teaching practice the next time I taught (narrative, expository, descriptive, or persuasive) writing based on discoveries from the baseline and posttest samples?

The findings of the Pre and Post Writing Assessment are reported in the divisions of kindergarten through second, third through fifth, and sixth through eighth grades.

1. What did I discover about students' writing skills in the baseline writing samples? (concerns as well as positive performance).

Kindergarten through Second

- The baseline narrative and expository student writing samples indicated that some students were able to stay focused on the topic but support sentences were very limited.
- Writing contained very little organization or correct conventions, grammar, or punctuation.

Third through Fifth

- Students used basic sentence structure that lacked details or a variety of vocabulary use.
- Conventions were generally poor.
- Students need practice incorporating a problem into their story.

Sixth Through Eighth

- Ideas were communicated in a focused list-like manner.
- The writing lacked an organizational plan or supporting details with low-level vocabulary use and no use of literary devices.

2. Did I make any changes in my teaching practices based on my discovery? If so, what were they?

Kindergarten through Second

- Students were given more opportunities to write.
- The FCAT Writes! Rubric was used to guide reading and writing.
- Modeling good writing strategies was increased.
- Webbing was used as a tool to help organize thoughts.

Third through Fifth

- Increased modeling of good writing techniques.
- Made connections between quality writing in literature and in students' work.
- Emphasized expansion of vocabulary to include more colorful language and elaboration of details.
- Stressed the five paragraph organizational pattern.

Sixth Through Eighth

- Enhanced writing techniques of persuasive writing through extensive arguments and debates.
- Encouraged student editing of papers.
- Increased modeling of pieces of good writing throughout history.
- Expanded ongoing review of literature devices.

3. What did I discover about my students' writing skills when comparing the baseline and posttest data?

Kindergarten through Second

- The complexity of sentence increased from the use of 3-4 words per sentence to sentences containing 8-10 words.
- Writing was better organized.
- The use of supporting details increased.
- Proper use of conventions was slightly improved.

Third through Fifth

- Students generally improved overall writing scores.
- Growth was made in length of sentences and the use of details.
- Conventions continue to be the weakest area.

Sixth Through Eighth

- Slight increase in use of literary devices, particularly simile and repetitions.
- Sentence variation structure improved.
- Higher level vocabulary used.
- Due to conflict in school activities and the post sampling time, students' post writing performance was not as high as class writing indicated.

4. Is there anything that I would change in my teaching practice the next time I taught (narrative, expository, descriptive, or persuasive) writing based on discoveries from the baseline and posttest samples?

Kindergarten through Second

- Introduce examples of good writing as a basis for judging student work as early as possible in the school year.

- Include writing activities in all of the content areas. Write as often as possible.
- Continue writing journals.

Third through Fifth

- Use more one-on-one conference time with students.
- Teach the whole to part rather than part to whole.
- Emphasize building events toward the climax in narrative writing.
- Begin persuasive writing at the beginning of the year to give students more practice in distinguishing between fact and opinion.

Sixth Through Eighth

- Make sure that pre/post samples times are not on conflicting dates with school activities.
- Begin writing activities as soon as possible in the school year.
- Utilize more examples of good essay writing.
- Monitor progress of students and teaching practices through the spiral-writing curriculum.
- Collect more writing samples and have students share their work.

Evaluation Measure III: Implementation Logs

Seventeen content and specialists' teachers kept a log for three weeks out of the year (November, January and April) recording their use of the FCAT *Writing!* Poster, the Proofreading Marks Guide, writing prompts/ activities and reflections on what they discovered about student's writing and teaching practices in the area of conventions (see Appendix E).

The percentage of staff members returning the completed logs went from an 82% in November to a low of 59% in January and back to 76% in the April reporting time. The project coordinators assumed that although teachers increased writing assignments in the preparation of students for the statewide performance assessment may have not have had time to complete the paper work for the implementation logs.

The range of writing assignments per teacher each week was consistent across the year from one to five. The total number of writing assignments for all content and specialists' teachers ranged from 27 to 29 per week. The range of students per writing assignment went from 4 to 56 depending on the way that the numbers of students were reported. It is suspected that one teacher added up the total number of students in each class for all periods to reflect the higher number. The highest use of Proofreading Marks Guide was in the November week with a percentage of 93%.

The highest percentage of writing assignment used with the poster and guide was expository. The next highest were descriptive then narrative with the least frequent type of writing assigned being persuasive. Overall, the proofreading guide was reported to be used more in the beginning of the year, but was continued to be used at least 50% of the time for all assignments

throughout the year. The poster was reported used at a higher percentage during the January week but was used consistently at least 67% of the time throughout the year on writing assignments.

Implementation Log Findings

One finding from the teachers' reflections on what they discovered about student's writing and teaching practices in the area of conventions generally indicated an observed improvement in writing performance that was attributed to a schoolwide emphasis on quality writing performance. The following teacher reflections support this finding:

The schoolwide use of the conventions chart provided a constant visual reminder and helped students to be more careful and aware of errors.

Students improved in self-correction of writing through the schoolwide use of the proofreading marks guide.

Students are beginning to generalize proper writing techniques learned in language arts to writing in content area classes.

Teachers were also more aware of the need for increased modeling of correct writing techniques.

Another finding that has great significance is the change of content teachers' practice to raise expectations for students to use correct writing techniques along with content knowledge.

Evaluation of writing in content classes has changed to include both content and conventions.

The areas that teachers noted that still needed staff development, improvement or investigation include increase modeling of proper writing techniques, a system of self or peer proofing, and a study of the correlation of poor speech and writing habits.

Evaluation Measure IV: FCAT

The FCAT Writes! was administrated in February, 2000 to fourth and eighth grade students. In fourth grade the combined scores increased from 3.2 to 3.4. In eighth grade the combined scores increased from 3.9 to 4.5. Contributing factors to the increase as the schoolwide emphasis on writing performance through teacher collaboration, action research study groups, professional development, consistent expectations of writing in both content and language arts classes, use of FCAT Writes! Poster and proofreading marks guide, and exemplary instructional strategies. Exemplary teaching practices emphasized increased vocabulary development, use of the FCAT Writes! rubrics for modeling and/or grading, definitions of the types of writing, focus on the 5 paragraph essay format, ongoing review of literary devices, linking examples of quality literature to student writing, use of a student/teacher feedback format, use

of peer conferencing, and the use of a NCS Staff Development/Florida Writes! CD-ROM program.

FOURTH GRADE	ADHUS AVERAGE			STATE AVERAGE		
	Writing to Explain	Writing to Tell a Story	Combined Scored	Writing to Explain	Writing to Tell a Story	Combined Scored
1999	2.7	3.7	3.2	2.9	3.2	3.1
2000	3.5	3.3	3.4	3.2	3.2	3.2
EIGHTH GRADE	Writing to Explain	Writing to Convince	Combined Scored	Writing to Explain	Writing to Convince	Combined Scored
1999	3.8	3.9	3.9	3.5	3.4	3.4
2000	4.5	4.6	4.5	3.8	3.5	3.7

Evaluation Measure V: Teacher Observations and Reflections on the Action Research Process

The focus for this study, that examined whole-school collaboration to develop and support the writing curriculum, sought to answer the question, *How can teachers build schoolwide capacity to support improved student writing across the curriculum?* The analysis of teacher reflections and observations, collected throughout the year, supported one of the major goals of this study to develop a collaborative learning organization where all teachers understand and are able to support the writing curriculum and each other's efforts to provide the best possible writing instruction for all students.

Developing teacher collaboration through action research study groups was one of the major study components to accomplish this focus. The three study groups, Language Arts, Kindergarten, and Content Area Teachers, served as collective sharing and centers of inquiry where discussion was focused on studying teaching practices and student performance in writing. Throughout the year, the groups collectively developed action or work plans to guide the following activities and tasks to be accomplished: collecting, classifying, and analyzing data on the students and on the learning environment; locating and using outside information about student standards, teaching practices and how students learn best; designing instructional strategies to support writing; developing a spiral writing curriculum; participating in staff development; understanding changes in student performance; articulating findings schoolwide.

Each group worked both individually in their area of expertise and as a total school group throughout the year as findings were shared and collaboration needed to design the total school writing curriculum to be supported by all teachers. Study groups worked in a cyclic process to conduct actions and activities that were revised throughout the year in light of the ever changing, collection of information on teaching and learning to target the specific needs and

concerns of each study group and eventually to promote schoolwide collaboration.

In the beginning of the year, teachers' reflections were more focused on what they had to do as individuals to promote improved student writing performance. The issue of time was of major concern to the teachers. Comments such as the following were concerned about lacking time to carry out the Project WATCH! Components, as well as time to restructure classroom instruction to meet classroom and individual student needs:

How and when will I be able to teach all the necessary skills for writing it is taking my students so long to understand why a concept map is a good pre-writing tool?

There is too much to be taught and not enough time for students to practice the skills.

I am concerned about having enough time to be able to accomplish the goals of this project.

My teaching needs to be devoted to include more time in lessons to work one-on-one.

Additional whole group interaction needs more time.

I am concerned about how to change my teaching to spend more time on teaching correct conventions.

Can we accomplish all the things we'd like to do by the testing dates?

How to find time to grade writing assignments each time?

Teachers also expressed a need for all teachers would work together to design and support a schoolwide writing curriculum.

There is a need at our school to integrate writing in content areas.

Teaching needs to be based on a spiral curriculum.

All teachers should be committed to support this project.

I am concerned how to support writing in the content areas.

Students need to write more in a variety of experiences.

In addition, teachers shared concerns about the impact of this project and the writing performance of their students.

How can I keep students motivated?

Will this project impact student achievement?

Students in my class have developmentally low skills and use low-level vocabulary.

It is challenging because I have to teach basic writing skills.

How can I be more effective in teaching skills?

Study group member reflections on student achievement and teaching practices near the end of the study reflected schoolwide endeavors rather than individual teacher goals.

It was great that all of the language arts teachers were able to agree on how to develop and improve children's writing. This plan will be helpful not only for the students, but to us as well. The spiraling of skills will assist teachers in focusing on grade level skills.

Our group was able to focus on where we as a team feel would best benefit our students' academically.

Schoolwide use of the conventions chart provided a constant visual reminder and helped students to be more careful and aware of errors.

Students improved in self-correction of writing through the schoolwide use of the proofreading marks guide.

Students are beginning to generalize proper writing techniques learned in language arts to writing in content area classes.

Evaluation of writing in content classes has changed to include both content and conventions.

Students' proper use of conventions improves as high expectations are made by both the language arts and content teachers.

By the end of the study, it was evident, as shown in these comments from study group members on student performance and the action research group process, that the goal to develop schoolwide collaborative inquiry focused on a design and support of the writing curriculum had been accomplished.

With a joint effort between the content and language arts teachers, the students are well prepared in what is expected in writing. I do believe that proper writing conventions have been embedded into their brain from this schoolwide effort to improve writing.

Conclusions

Project WATCH! (Writing Across the Curriculum Hawks!) was the 1999-2000 schoolwide action research project. This project involved all classroom and specialist teachers at the A.D. Henderson University School grades K-8. The study question, *How can teachers build schoolwide capacity to support improved student writing across the curriculum?*, examined whole-school collaboration where all teachers understand and are able to support the writing curriculum and each other's efforts to provide the best possible writing instruction for all students.

The study was conducted through several phases: Phase I included the overall design of the project action plan. The second phase was the implementation of three action research study groups who collaboratively supported the writing curriculum through actions and activities. The third phase involved professional development to support teachers in changing instructional practices. The fourth phase was to support data-driven decisions through the collection and analysis of data. The final phase was to coordinate the findings of the study and implement new actions to support schoolwide high-level writing performance.

The collection of data sources provided a comprehensive picture of how students were performing and of what students and teachers were experiencing as instructional practices were changing as measured by four major evaluation measures: Pre/Post Writing Support Questions, Pre/Post Writing Assessment, Implementation logs recording FCAT Writes! Poster and Proofreading Marks Guide Use; teacher observations and reflections, the Florida Comprehension Assessment Test administered to fourth and eighth grade students, and observations and reflections by the FAU liaison and on-site coordinator.

Teacher's findings indicate a general improvement in writing performance of students in kindergarten through eighth grade. Exemplary teaching practices included increased vocabulary development, use of the FCAT Writes! rubrics for modeling and/or grading, definitions of the types of writing, focus on the 5 paragraph essay format, ongoing review of literary devices, linking examples of quality literature to student writing, use of a student/teacher feedback format, use of peer conferencing, and the use of a NCS Staff Development/*Florida Writes!* CD-ROM program. The FCAT Writes! indicated an increase in combined scores in the fourth grade expository writing from 3.2 to 3.4 and from 3.9 to 4.5 in the eighth grade.

The analysis of teacher reflections and observations, collected throughout the year, supported the accomplishment of one of the major goals of this study to develop a collaborative learning organization where all teachers understand and are able to support the writing curriculum and each other's efforts to provide the best possible writing instruction for all students.

In conclusion, student writing was improved by implementing a schoolwide focus on improving writing performance using exemplary teacher practices, teacher collaboration, action research study groups, professional development, and consistent expectations of writing in both content and language arts classes, and use of FCAT Writes! Poster and Proofreading Marks Guide.

Recommendations

Several strategies to improve students' writing performance are recommended as a result of the findings of this study. They include changes in teaching practices, the offering of staff development and the continuance of collaborative study groups. Continue collaborative study groups to provide vehicle for implementing the schoolwide writing curriculum.

- Provide professional development to enhance teacher collaboration in the provision of a spiraled writing curriculum.
- Teachers should increase emphasize on the process of writing.
- Increase writing activities through the content.
- The grading criteria for writing in content classes should reflect high expectations in both content as well as in conventions.
- Modeling and reminding students to properly use spelling and conventions should continue to be an ongoing part of teaching practices by language arts as well as by content teachers.
- Students should be given an opportunity through peer conferencing or through another identified method to proof all written work before it is submitted to the teacher.
- Provide professional development to emphasize increased modeling and emphasis of the use of proper conventions during writing instruction.
- Promote schoolwide use of the proofreading marks guide and conventions chart to emphasize correct writing techniques.
- Establish high expectations for content and conventions for writing in all classes.
- If a more accurate measure of the actual amount of time spent in writing activities is deemed important, a recommendation would be to have the teachers keep a time log for three or four weeks in the year on actual time spent on writing activities.
- Continue implementation of content supported writing activities, schoolwide MLA Style, and the Confidential Student Articulation Folder

References

- Bogdan, R. & Biklen, S. (3rd ed.) (1998). *Qualitative research for education: An introduction to theory and methods*. Needham Heights, MA: Allyn & Bacon.
- Brunaford, G., Fischer, J. & Hobson, D. (1996). *Teachers doing research: Practical Possibilities*. Mahwah, NJ: Lawrence Erlbaum Assoc.
- Calhoun, Emily. (1994). *How to use action research in the self-renewing school*. Alexandria, VA: ASCD.
- Creswell, J. (1998). *Qualitative inquiry and research design*. Thousand Oaks, CA: Sage.
- Corey, S.M. (1949). Curriculum development through action research. *Educational Leadership* 7, 3: 147-153.
- Corey, S.M. (1953). *Action research to improve school practices*. New York: Teachers College Press.
- Fullan, M. (1996). *What's worth fighting for in your school*. New York: Teachers College Press.
- Glanz, J. (1998). *Action research: An educational leader's guide to school improvement*. Norwood, MA: Christopher-Gordon Publishers, Inc.
- Glickman, C.D. (1990). *Supervision of instruction: A developmental approach*. Boston: Allyn and Bacon.
- Glickman, C.D. (1993). *Renewing America's schools. A guide for school-based action*. San Francisco: Jossey-Bass.
- Goodlad, J.I. (1984). *A place called school*. New York: McGraw-Hill.
- Lewin, K. (1947). Group Decisions and Social change. In T.M. Newcomb & E.L. Hartley (Eds.), *Readings in Social Psychology*, New York: Henry Holt.
- Lewin, K. (1948). *Resolving social conflicts: Selected papers on group dynamics*. New York: Harper and Row.
- Looking at Student Work Protocols:
<http://www.aisr.brown.edu/LSW/protocols.html>
- Patterson, L., Stansel, J. & Lee, S. (1990). *Teacher research: From promise to power*. Katonah, NY: Richard C. Owen.
- Sagor, R. (1992). *How to conduct collaborative action research*. Alexandria, VA: ASCD.



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