

A VYGOTSKY-BASED CURRICULUM FOR TEACHING PERSUASIVE WRITING IN THE ELEMENTARY GRADES

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Persuasive writing is difficult to learn and teach in elementary school, but this research gives us insight into how it can be done.

Many elementary school curricula are based on the cognitive-development model of Piaget. This model suggests that preformal-operational children, that is, those younger than age 11, are not capable of performing tasks requiring formal-operational thinking (Inhelder & Piaget, 1964).

Elementary school curricula usually leave out persuasive writing because it involves the formal-operational skills of formulating, analyzing, and synthesizing reasons—abilities thought to be too difficult for preformal-operational children. In fact, this genre is thought to be so difficult that students have little or no exposure to it until late in high school or even college (Applebee, Langer, & Mullis, 1986).

Recently, however, Vygotsky's social-interactionist approach to education and his theory of the zone of proximal development (1978) have begun to change educators' ideas of when children are "ready" for instruction in formal-operational tasks and how we measure their progress. If given instruction directed at their potential cognitive level, children may very well "achieve cognitively what had seemed beyond them when measured by experimental tests" (Freedman & Pringle, 1984, p. 81).

This study tested the notion that preformal-operational fourth graders would improve their ability to perform a formal-operational task, that is, persuasive writing, with the help of adults and peers.

Vygotsky's "Zone of Proximal Development"

Even though Vygotsky (1962) hypothesizes that higher-level thinking skills do not fully mature until puberty, he still says children should be stimulated

through a sequence of goals that increase in difficulty. A child who is not challenged in this way either fails to reach the highest stages of thinking or "reaches them with great delay" (Vygotsky, 1962, p. 59). By the same token, even though persuasive essays involve the high-level task of problem analysis, he argues that children should be given ample opportunities to read and write in it and all genres (Vygotsky, 1978).

This position is based on the social and educational influences that affect a child's cognitive development. Vygotsky's theory about the connection between learning and development in a child is called the *zone of proximal development*. The zone is defined as:

the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978, p. 86).

Consider, for example, two 7-year-olds who score the same on a particular cognitive task that is beyond their ability. Piaget would say that the abilities of these children are equal. However, let us say that they then receive instruction from an adult and, when retested, show different levels of achievement. According to Vygotsky, these different levels could only be due to their different learning potentials, their zones of proximal development. Without adult assistance, the two children's abilities would probably be seen as almost the same. However, according to Vygotsky, these children, because of their respective zones, will eventually show actual differences in development. When the two children are tested without adult intervention one year later, the child who benefited more from instruction will score higher than the other. In this sense, early learning dramatically affects later development. The differ-

ence between the two children would, according to Vygotsky, be even more dramatic if one of them did not receive any instruction at all.

Vygotsky also says that learning always precedes development; in other words, even though we cannot measure progress in learning today, it will mature developmentally tomorrow. He also states that learning is not mere maturation, but “properly organized learning results in mental development and sets in motion a variety of developmental processes that would be impossible apart from learning” (Vygotsky, 1978, pp. 86, 90).

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Why Persuasive Writing Is So Difficult for Children

Research about how students master different genres has helped us see at least three reasons why persuasive writing is so difficult. First, persuasive writing requires taking a stand and defending it with sound and convincing reasons (Toulmin, Rieke, & Janik, 1984). Narrative, on the other hand, relies more on relating events as they happen in time or in sequence.

Second, children tend to write the way they speak until they learn the proper organizational pattern for the chosen genre (Crowhurst, 1983; White, 1989). This mapping strategy works very well with narrative because oral and written narratives are very similar. Not so with persuasive writing. It is structured quite differently from oral language. To write a good persuasive essay, children must learn a very organized and abstract form (Moffett, 1968), which means learning a very different way of organizing their thoughts (Burkhalter, 1992a).

A third reason why persuasive writing is so difficult is that taking the perspective of the reader is highly demanding for writers of any age. For this kind of writing, writers not only have to come up with good reasons to convince their readers, but they also must consider what objections those readers will have.

Because persuasive writing demands higher-level thinking skills, has a more difficult organization, and calls for increased attention to audience, most persuasive essays are extremely short, almost always shorter than any narrative produced under similar conditions (Freedman & Pringle, 1984; Pringle & Freedman, 1985). Children may find it very difficult to produce an adequate essay until they are old enough to have developed concept formation, which is not until puberty (Vygotsky, 1962), or until they have become formal operational (Inhelder & Piaget, 1964).

If Piaget is correct in his claim that preformal-operational children cannot improve on a task requiring formal-operational thinking, then schools would be wasting their time trying to teach persuasive writing in the elementary grades.

On the other hand, if Vygotsky's view that learning precedes development is correct, then it would seem to follow that the sooner the seeds of these cognitive processes are planted through adult intervention, the sooner they can begin to flower. If children are given the chance to read and write persuasive essays, they may very well advance beyond our expectations and set the stage for subsequent gains in learning.

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Method

In putting these ideas to the test, 153 participants were drawn from an elementary school in western New Hampshire. Students from all 4 fourth-grade classes in the school and all 4 sixth-grade classes participated in this study. Two fourth-grade and 2 sixth-grade classes were in the experimental group; 2 classes of each grade were in the comparison group. (The control groups are referred to as “comparison” groups in this study because no attempt was made to control their curriculum.) The study took place over a 3-week period (not including testing) in the winter.

Of the 153 participants in this study, 42% of the students were girls (N=69), and 58% of them were

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boys (N=95). Eighty students were in the experimental group, while 84 were in the comparison classes. The gender ratio in both classes was comparable, with 31 females and 48 males in the experimental group and 38 females and 47 males in the comparison group.

Although random assignment to treatment groups was preferred, subjects were not randomly assigned for two reasons: (1) The school year had already started, and it would have been disruptive to change students' accustomed way of learning; and (2) there was the possibility that children would have behaved differently had they known they were in a special study. None of the students in the experimental classes were told they were being taught a curriculum different from that of the comparison group, which was not controlled and received no instruction in persuasive writing.

Curriculum Objectives and Practice

Following are examples intended to provide a sense of the kind of instruction used.

Objective #1: To help students recognize a persuasive essay A persuasive essay tries to get readers to agree to a request, a suggestion, or a viewpoint. This kind of essay differs from a factual article, which doesn't take sides or try to convince. Young students often have difficulty telling the two apart.

Sample Practice: Many local newspapers and magazines gladly donate recent issues for a class discussion about factual and persuasive articles. For example, articles on the front page can be compared with letters to the editor and editorials. Class members can try to identify words signaling an opinion.

Objective #2: To help students develop arguments and anticipate a reader's objections One requirement of persuasive writing is to anticipate opposing viewpoints and address them in the text before the reader has a chance to disagree. There must also be sufficient supporting detail (see Objective #6).

Sample Practice: To help students prepare arguments and anticipate possible objections, one teacher drew three columns on the board. In the first column, students listed one reason why the teacher should let them have a gerbil in the classroom: It would be educational. In column 2, the teacher recorded why she might be against such an idea: It would smell. Column 3 listed the students' proposed solution to that problem: The animal would not smell because the cage would be cleaned daily. The teacher pointed out that students needed to mention

the objections (column 2) in their essay, in addition to their solutions to the problems (column 3). This exercise lets them see that the reader will have objections that must always be considered.

In a related exercise, students looked at a persuasive letter written by a fifth grader for a National Assessment of Educational Progress (1977) study. In the letter, Chris Smith tries to convince his landlord to let him keep his puppy by offering several good points about the dog's behavior. The letter was not meant to be a model for them to imitate but rather a composition whose arguments they could analyze. They could also see how the writer anticipated and offered solutions to the reader's counterarguments.

The individual arguments were outlined on the board. Students then brainstormed additional ones, for example, promising always to use a leash, put on a flea collar, and take the dog to a kennel during vacations. Next, students wrote their own essay to their landlord. Finally, they pretended they were the landlord and wrote a response to Chris Smith.

Objective #3: To motivate students to write persuasive essays Knowing that their letters actually will be sent to their principal, a TV station, or school newspaper motivates young writers. Such audiences also offer the opportunity to communicate with someone other than the "default" audience—the teacher.

Sample Practice: "Assignment: The World" is a weekly, 15-minute children's news show produced by PBS. Each broadcast presents current events and has a pop quiz on a particular news item. At the close of the show, viewers are given some background on a current issue and asked to submit essays supporting their viewpoint on the matter. Two weeks later, the results of the survey are shown, including percentages of respondents for and against, as well as excerpts from letters.

Students in this experiment responded to the topic: Should families be allowed to choose the school their children attend? Although discussing school choice was a more difficult topic than the others used in the curriculum, children were given the opportunity to develop their ideas through a debate on the topic presented in the show. (See Objective #4 for explanation of the debate.)

Objective #4: To transfer oral argumentation skills into written ones It is crucial that children feel comfortable with their ideas before putting pen to paper. A debate can help by giving them a live audience and by providing them with a source of ar-

guments they may not have considered. This activity also works very well because it usually allows students to collaborate and pool ideas.

Sample Practice: The debate format used in each of the experimental classes to prepare for their "Assignment: The World" essay was generally the same. After the students watched the program, which presented some background on the issue of school choice, they brainstormed while the teacher wrote preliminary arguments for and against the issue on the board. Then the class was split into opposing teams. Each side was asked to write more arguments supporting their view and choose three students to represent them in a debate. The debate in the sixth grade allowed each side to rebut previous arguments. The fourth-grade debate was kept to only the preliminary round of arguments with no rebuttal. The students' interest became so sparked by the exercise that one sixth-grade class presented its debate to the two fourth-grade classes. The number of arguments presented were surprisingly varied, and those presented by the fourth graders were no less sophisticated or valid than those the sixth graders presented. Arguments from fourth graders included the following:

For

1. Special education children need a good education, so they should be allowed to choose the school they want.
2. Children might not try their hardest if they don't like the school they attend.
3. Some teachers in the school nearest to where a child lives might be inexperienced.

Against

1. All students might choose one particular school if they were allowed to choose.
2. Some teachers would lose their jobs.
3. Students might choose a school on the basis of race or sex (thus encouraging segregation).

Having thought about and refined their ideas in the debate, students can more easily prepare their own essays.

Objective #5: To identify strong and weak arguments Identifying and evaluating arguments is also essential preparation for writing persuasive essays. A good argument is one that is judged stronger, that is, potentially more convincing, than another. Of course there is no completely objective scale for this measurement, but even children know a good argument when they hear one. An argument could be considered weak if it does not really support the claim, or does so only indirectly. For instance, going back to

the gerbil in the classroom idea, the argument that, "It will increase my knowledge about that species of animal" is stronger than, "I like to pet soft, furry animals." Certainly from the perspective of the teacher, the first argument is much stronger and thus more convincing.

Sample Practice: One fourth-grade teacher read an article from a magazine to her students about which pets would be good for the classroom. She then wrote these directions on the board for groups of 4 to consider: (1) Make a list of possible pets and some reasons why each would be good or bad for a classroom; (2) list reasons why the class should have a particular pet; (3) report to the whole class why you have decided on this pet. (One group reasoned that a talking parrot would be good because students would always have someone to talk to if they became lonely.) Students could then evaluate which arguments were the strongest or most convincing.

The sixth-grade teacher had students evaluate each other's arguments in their essays by marking *E* for effective or *I* for ineffective. Partners then suggested to the writer how the ineffective arguments could be made stronger.

Objective #6: To support their viewpoint An argument is usually more believable and persuasive if the writer can justify it with enough evidence.

Sample Practice: During editing conferences, partners helped each other to elaborate on their arguments by supplying more information to convince the reader. Often, editors see "holes" more easily than the creator does; writers tend to fill in information in their minds that is not necessarily written.

Instruction

Instruction in persuasive writing for the experimental groups consisted of 45-minute daily lessons for 16 days. The curriculum asked for three compositions from the students in addition to the pre- and posttest essays. Here are the topics used for testing:

Pretest Topic

Some teachers have suggested that students be required to help clean up the classrooms and playgrounds by doing things such as emptying wastebaskets, washing blackboards, sweeping floors, and picking up trash on the playground. Do you think this is a good idea or a bad one? Write a letter to your principal stating your opinion on the proposal. Remember to take only ONE point of view.

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Organize your arguments carefully and be as convincing as possible.

Posttest Topic

The school's budget is in trouble, and some classes must be eliminated. It has been suggested that either art classes OR gym classes be cut from the program. Which class—art or gym—do YOU favor saving? Why? Write a letter to your principal stating your point of view. Remember to take only ONE point of view. Organize your arguments carefully and be as convincing as possible.

Assessment

Student compositions were graded according to a scale adapted from Connor (1990) and McCann (1989). Modified for use with young writers, the scale measures claims, data, and warrants, which are analogous to thesis statement, topic sentence, and supporting detail. A *claim* is an idea we want the reader to agree to: We need an ant farm in our classroom. *Data* are the support for the claim in the form of facts, experiences, statistics, or occurrences: It will help us learn more about ants and how they arrange their society. A *warrant* is further explanation of the data to show how the data are related to the claim: We will find out what they eat, how they bury their dead, and how they dispose of their garbage. Here is the instrument used in the study.

Instrument for Judging Claims, Data, and Warrants

Claim

Conclusions whose merits we are seeking to establish and assertions put forward for general acceptance:

- 0 No clear position exists on the writer's assertion, preference, or view, and context does not help clarify it.
- 2 Writer's position is poorly formulated, but reader is reasonably sure what the paper is about because of context.
- 4 A topic sentence exists, and the reader is reasonably sure what the paper is about on the strength of the topic sentence alone, regardless of context.
- 6 A very clear, concise position is given as a topic sentence. The reader is very certain what paper is about.

Data

Support in the form of experiences, facts, statistics, or occurrences:

- 0 No data are offered that are relevant to the claim.
- 2 Scant data (one or two pieces) are offered, but what data exist are usually relevant to claim. Irrelevant data are excluded.
- 4 Numerous pieces of data (minimum three) in support of the claim are offered. They are relevant but not necessarily convincing or complete. The writer leaves much for the reader to infer from the data. The writer may offer data which are not complete enough to allow the reader to determine their significance.
- 6 Numerous pieces of data (minimum three) are complete and accurate as well as explicitly and convincingly connected to the claim.

Warrant

Amplification or further explanation of *data* relating it back to claim.

- 0 No warrant is offered.
- 2 An attempt is made to elaborate at least one element of the data, but the reader is left to infer more.
- 4 More than one piece of data is explained, but the explanation is weak or lacks thoroughness.
- 6 The writer explains data in such a way that it is clear how they support the argument. At least one piece of data is convincing and complete. (See Burkhalter [1992a] for a more thorough discussion of how the instrument was used in evaluating compositions.)

Results

Separate ANOVAs were performed to determine whether there were differences in the posttest persuasive essay scores for three dependent variables: claims, data, and warrants. Possible scores for each trait were 0, 2, 4, or 6. The independent variables were gender (male, female); treatment (comparison, experimental); and grade level (4, 6).

Claims

The main effect of gender for claims was significant, with girls, as a group, performing better ($M=3.90$, $sd=9.07$) than the boys ($M=2.43$, $sd=1.93$). The treat-

Table 1
ANOVA for Claims, Data, and Warrants

	df	Sum of Squares	Mean Square	F-Value	P-Value
<i>Claims</i>					
Gender	1	164.72	164.72	4.60	.03
Treatment X Gender	1	94.31	94.31	2.64	.10
<i>Data</i>					
Gender	1	14.93	14.93	4.72	.03
Test time	1	23.52	23.52	15.17	.0001
Test time X Treatment	1	4.11	4.11	2.65	.10
<i>Warrants</i>					
Treatment X Grade	1	13.26	13.26	5.58	.01
Test time X Gender	1	7.08	7.08	5.92	.01
Test time X Grade X Gender	1	5.79	5.79	4.84	.02

ment x gender interaction for claims resulted in a trend. In the control group, girls ($M=4.56$, $sd=12.41$) scored higher overall on the pre- and posttests than the boys ($M=1.98$, $sd=1.79$). Experimental group girls also scored higher: girls ($M=3.18$, $sd=1.89$), boys ($M=2.82$, $sd=1.97$). There were no significant differences by grade level.

Data

The interaction between test time x treatment for data was significant. The experimental groups in both grades did significantly better on the posttest than the comparison groups.

In the main effect of gender for data, girls ($M=3.04$, $sd=1.53$) scored higher than boys ($M=2.59$, $sd=1.56$). The main effect of test time was also significant, with scores on the pretest ($M=2.48$, $sd=1.42$) lower than on the posttest ($M=3.07$, $sd=1.58$).

Warrants

In the three-way interaction for warrants, test time x grade x gender, the fourth-grade males scored lower on the posttest ($M=.72$, $sd=1.11$) on warrants than on the pretest ($M=.93$, $sd=1.40$). All other groups scored higher on the posttest.

Two two-way interactions were significant. In the first, treatment x grade, the fourth-grade comparison group did better ($M=1.13$, $sd=1.54$) than the experimental fourth graders ($M=.85$, $sd=1.25$) on warrants. Sixth-grade comparison students ($M=.48$, $sd=1.05$) performed below sixth-grade experimental students ($M=1.05$, $sd=1.43$).

The other significant two-way interaction for warrants was with test time x gender, where girls had

higher scores on both the pretest ($M=.85$, $sd=1.41$) and posttest ($M=1.42$, $sd=1.56$) compared to boys' pretests ($M=.72$, $sd=1.32$) and posttests ($M=.69$, $sd=1.12$).

Discussion

Three major findings came from this study:

(1) All experimental students scored significantly higher on the posttest than those in the comparison group, who had had no instruction in persuasive writing. In addition, even though fourth-grade experimental students scored below the sixth-grade experimentals, their improvement was significant, thus showing that children as young as 9 can improve their ability to write persuasive essays, even though it is very hard for them.

(2) All girls had higher pre- and posttest scores than boys, which confirms other findings that girls perform better in all genres, as well as in grammar, punctuation, and spelling (NAEP, 1990; also see Burkhalter [1992b] for more discussion about gender differences).

(3) The most difficult aspect of persuasive writing for all students was warrants, that is, adding enough supporting detail and amplification to make the point clear and convincing to the reader (see Objective #6). Why are warrants so difficult for students? The most obvious explanation is that younger children are not as adept at writing when it is considered as either a mental or a physical activity, and they simply cannot develop their essay enough in the time given to include something as sophisticated and detailed as warrants. This seems a satisfactory reason, especially in light of the fact that the sixth-grade experimental group performed better on warrants than

the fourth-grade experimentals. The sixth graders had had 2 more years of practice at writing and developing essays, better motor control, and more advanced cognitive abilities, including formal operations.

In general, the findings in this study support a Vygotskian approach to the teaching of writing. To say that children are able to perform tasks requiring formal operations only after age 11 is to suggest that stages of development are separate and distinct. However, cognitive abilities develop slowly, and knowing exactly when they emerge is impossible. Vygotsky (1956) states:

... instruction is good only when it proceeds ahead of development. It then awakens and rouses to life those functions which are in a stage of maturing, which lie in the zone of proximal development. It is in this way that instruction plays an extremely important role in development. (278)

Therefore, the focus of training in this genre and of education in general should be on *how much* any one child can progress in learning a particular skill with the help of a peer or adult, not on whether a child can meet certain cognitive criteria before instruction begins. Nor should instruction be kept from a child because we think it is too difficult. Just because adults perform a particular skill better does not mean that younger children cannot begin devel-

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oping it. Since no one is completely privy to a child's thinking processes, we can only rely on research like Vygotsky's that shows that children vary in abilities but can grow at individual rates when given help. It does not make sense to deny children access to persuasive writing—or any skill, for that matter. Children merely require that the presentation of information be at their level (Lipman & Sharp, 1978). These findings indicate that we can use a more dynamic approach to learning that triggers children's potential through adult assistance rather than a more rigid one that bases curriculum design on what they are or are not capable of doing.

Persuasive writing is challenging, no matter what age the writer. However, an approach using adult intervention that builds on children's oral argumentation skills and their ability to judge the strength of arguments can help them overcome the inherent difficulties in writing a persuasive essay.

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