ABSTRACT
Noting that the process of making and supporting generalizations and argumentation are two thinking strategies that cut across almost every subject area, this paper presents several class activities designed to improve students' ability to make and support generalizations and produce arguments in a written (or oral) composition. The first activity in the paper helps students begin to understand what a generalization is and how to generate and support it. The next two activities in the paper address urban crime legends. Another activity in the paper involves charts, graphs, and Olympic records. The paper then presents a writing assignment designed to test what students know and do not know about argumentation, and it also presents an activity designed to get students involved in arguing and counter-arguing in an encouraging and non-intimidating environment using cases that present complex problems with no easy solutions. Next an activity is presented involving refutation or counter-arguments—one of the most difficult skills for students to master. The paper concludes that providing a variety of activities that encourage students to practice these strategies in different situations and with a variety of materials will help students learn how these thinking skills apply in a variety of subject areas. An appendix contains reading materials for many of the activities, data on urban crime and Olympic records, and sample student essays. Contains 69 references. (RS)
MAKING THE WRITE CONNECTIONS:
THINKING AND WRITING ACROSS THE CURRICULUM

Multi-District In-Service Program

Larry R. Johannessen
Associate Professor of Education

Education Division
Benedictine University
5700 College Road
Lisle, Illinois 60532
Telephone: (630) 829-6286
Fax: (630) 829-6231
e-mail: ljohannessen@ben.edu

Mailing Address:
1253 Reading Court
Wheaton, Illinois 60187

for

Lake Mills Area School District
Lake Mills, Wisconsin

October 6, 1997

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Larry R. Johannessen
Lake Mills Area School District, Lake Mills, Wisconsin

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INTRODUCTION

Two major thinking strategies that cut across almost every subject area are the processes of making and supporting generalizations and argumentation. In speaking and in writing we ask students to use these thinking strategies all the time. For example, if they are asked to draw conclusions on the best way to bunt for a base hit in baseball based on observing a number of hitters bunt the ball, or describe a well balanced diet, they are making and supporting a generalization; or, if they are asked to defend or attack a school policy that prohibits the wearing of hats in the school building, they are arguing.

The trouble is that most students—even accelerated students—often have difficulty making and supporting generalizations and creating effective arguments. And, since we ask them to use these thinking strategies in class discussions, on tests, and in writing, we ought to be providing instruction that will help them master these important thinking strategies.

What I am going to share with you today are some methods for helping students learn these strategies that I have found are very successful. I have tried to include sample materials that involve a variety of different subject areas to give you some ideas about the kinds of things that work with students at a variety of ability and grade levels.

I am going to explain some of the activities and ask you to do some parts of some so that you get a sense of what goes on in the classroom and so that you will understand what thinking processes the students are engaged in. The activities are designed to improve students' ability to make and support generalizations and produce arguments in a written (or oral) composition.
MAKING AND SUPPORTING GENERALIZATIONS

In most subject areas students are asked to make and support generalizations—whether it be in writing assignments, essay tests, or class discussions. They may have to describe a writer's style, explain the differences between Gothic and Romanesque architecture, draw conclusions based on the results of an experiment, or discuss the reasons teenagers are so influenced by peer pressure.

Most students—even our best ones—often have difficulty doing so. This is not to suggest that students don't make generalizations when they write or speak. Often that's all they do. It's not uncommon for students to write generalization after generalization without appearing even to recognize that they are presenting generalizations (or conclusions) that have to be supported. They frequently make hasty generalizations, overgeneralize, or fail to provide any supporting evidence or explanation.

Here are a few statements (generalizations) without support from student writing:

"In the sixteenth century, people assumed that all unmarried women were pure."
"A teacher at a school of mostly white, upper class students is not apt to force a novel on the students that condemns money and those who have money."
"Before sex education was taught in the school, many teens were having sex without even knowing it."
"Most victims of crime live in large urban areas of the country."

Perhaps one of the reasons that students tend to write generalizations without supporting them adequately is because they're not very aware of when something is a generalization or how valid generalizations are developed. In textbooks, magazines, newspapers, and even class lectures, they may be presented with generalizations but not
see the process that was involved in arriving at them. They may simply see them as "facts" that need no support or explanation, that cannot and need not be questioned.

One way to teach students how to make and support generalizations is to provide models or examples: however, my experience and research seems to confirm that this is not usually enough for most students. The process of making and supporting generalizations involves a number of complex thinking strategies. Here are some that a number of theorists and researchers have identified: Observing, Describing, Comparing, Contrasting, Questioning, Testing, Evaluating, Providing Support, Making Generalizations (See for example, Hillocks 1982 and 1987).

The activities that follow are designed to illustrate how to teach students how to use the complex thinking strategies involved in making and supporting generalizations.

Beer Street and Gin Lane--Introductory Activity

One way to help students begin to understand what a generalization is and how to generate and support them is with an activity that will easily engage students in the thinking strategies involved in making and supporting generalizations. If you will look at the two engravings by British painter and engraver, William Hogarth, 1697-1764 (engravings are not included with this paper), I will show you one way I introduce generalization and support. I tell students to look carefully at the two engravings, as I am asking you to do, and to tell me what conclusions or inferences they note about one or both of the engravings. What is the artist trying to tell us about "Beer Street" and "Gin Lane"? What evidence leads you to your conclusions? For example, one conclusion or generalization one might make about Gin Lane is that most of the people seem to have lost their religion. Notice that the steeple of the church does not contain a cross, and it is remote and appears inaccessible (a statue of George I replaces the cross). What other details could support the conclusion or generalization that the people have lost their religious or faith? What conclusion or inference could you make about the church in Beer Street? What evidence
leads you to your conclusion? What generalization could you make about the people in the engravings? Evidence? What has gin done to the people on Gin Lane? What has beer done to the people on Beer Street? What is the painter trying to tell us about drinking gin? Drinking beer? How do you know?

As you lead the discussion, push students to supply to details from the engravings to support their conclusions, and encourage disagreement. You might want to compile their conclusions or generalizations on the board. After discussing the two engravings, introduce the idea that that their statements are generalizations— they are statements that characterize a set of things—in this case, details in the engravings—and that they describe what is true of the details in general in terms of the engravings. I ask students to explain why it was necessary to point to the details in the engravings to support their generalizations? They almost always say something like, “because otherwise you could just make something up that isn’t there.”

This activity works in a number of ways:

* it captures student interest and attention;
* it increases the amount of student participation in class;
* it introduces the concept of generalizing—making generalizations—in a concrete way;
* it suggests the importance of having support for generalizations;
* it introduces the idea of finding appropriate evidence to support generalizations;

Urban Crime Legends—Opinionnaire

The purpose of the next activity is to help students better understand what an accurate and significant generalization is and how to generate and support them. I pass out the questionnaire you see in your handout (see appendix), and use the following procedures:
1. I ask students to read each of the ten statements and decide if each is true or false.
2. I informally compile and discuss their responses;
3. I indicate that these statements are generalizations—that is, they are statements that characterize a set of thing; they describe what is true of these things in general;
4. I ask students what they would need to do to verify their guesses and/or resolve their disputes.

The answer that they reach on this last point is that they will need to read a number of urban crime legends in order to verify and/or resolve disputes.

This activity works in a number ways:

- it engages students' interest and attention;
- it increases student involvement and participation in class discussion;
- it reinforces and extends the concept of generalizing—making generalizations—in a fairly concrete way;
- it suggests the importance of having support for generalizations;
- and, it raises questions for which they want to find answers—this increasing their involvement in the next activity.

"Urbana Crime Legends"--Data Set

Now that students are interested, want answers to their questions and want to resolve disputes, they are ready for the next step. The next three pages of your handout (see Appendix) contain a definition of urban legends and a set of six urban legends that I put together from three collections of urban legends that focus on urban crime. I begin by
leading the class through these materials orally. Could I ask someone to read the definition of urban legends? The first legend? The second, etc.? Once we have read through the materials, I use the following procedures in doing this activity.

1. As I just indicated, I pass out the data set to students and we read the data over together;
2. I point out to students that they should assume that the legends I have given them are typical of those from the three sources, so I ask students to assume that they represent what they would find if they read these or other sources;
3. I assign students to small groups of three or four, and I ask them to use this information to test the generalizations on the questionnaire--look at the evidence to see if it supports the statements;
4. I sometimes do one statement with the class to make sure they understand;
5. Finally, I then reassemble the class and discuss group findings and conclusions.

   In this activity students are testing the generalizations from the questionnaire, and they are ultimately refining them in the small groups and whole class discussions. In addition, they are searching for and finding evidence to support generalizations. I believe that this activity is effective because it creates a lot of interaction, groups have to work together cooperatively, and there are high levels of student involvement in the small group and whole class discussions. My experience is that some usually “passive” students get quite involved.

   Urban Crime Legends: Moving Toward Independence

   In the previous activity students worked from a set of generalization that they were given. However, most students will need more practice, and they need to move toward more independence--they need to be more on their own. Therefore, I recommend a follow-
up activity in which students either work with a new set of data or continue working with the same set of data.

I use the following procedures for this activity:

1. I tell students they will be working in small groups work on modifying the generalizations from the questionnaire that are not supported by the data and making or creating some additional generalizations besides the ones on the questionnaire; we discuss qualifying words like *most, all, some, few, and many* to make sure students understand how to make generalizations that accurately reflect what the data indicates;

2. I ask them to look for commonalities among two or more, and to look for what is true of some, few, many, most; what categories they fall into; the characteristics of these kinds of legends; the characters involved; and the content or themes;

3. then, I have students work in groups modifying generalizations from the questionnaire that are not supported by the data and making additional generalizations;

4. I sometimes give them one or two additional legends and ask them to test their generalizations to see if they still hold up;

5. Then, I have them meet with another group (or exchange generalizations with another group) and evaluate one another’s generalizations and findings; I have them use the following questions as a guide in evaluating another group’s generalizations:

- Which modified and new generalizations are strong?
- Are there any that are not informative or meaningful (i.e. “All legends tell stories.”)?
• Are the generalizations accurate, clear, and are they supported by the data?

6. I ask them to write comments on the generalizations and return them to the group that wrote them;

7. if students need additional help, or we need to discuss any troubling generalizations or disagreements, we discuss their generalizations and findings in a whole class situation;

8. finally, I have them write a brief composition supporting one of the generalizations they modified or created.

In this activity students have worked more independently on making, supporting, and evaluating and testing generalization. They are creating generalizations that account for or hypothesize about reasons for commonalities. And, as a final step they are actually writing a composition presenting and supporting one (or more if you wish) of their generalizations. Again, I believe that this activity works because it creates a lot of interaction, groups have to work together cooperatively, and there are high levels of student involvement in the small group and whole class discussions, and it builds on the work they have previously done with the statements from the questionnaire.

“Very Little Harm”--Student Essay

The next page of your handout (see Appendix) is an example of a student essay written using this data. Notice that her essay is a modification of the tenth statement on the questionnaire. The student did the activities I have just described to you. The essay begins with a very interesting and effective generalization. In fact, when her group met with another group to discuss their revised and new generalizations; the generalization read, “Most urban crime legends end without serious bodily harm being done to the subjects of
the stories." After a great deal of discussion and debate, they decided that "Most" didn't exactly describe what they found in the data, so they modified it to read "Nearly all" and this also resulted in the carefully worded last sentence of the paragraph that qualifies the generalization that they finally arrived at. The generalization is significant and contains excellent and effective support from the legends. This essay illustrates how doing activities like the ones I am showing you helps students learn important thinking strategies involved in writing that cut across many subject areas. Also, it indicates how to "scaffold" or sequence the instruction so that students learn and practice the thinking and writing skills and strategies, and move toward independence.

Olympic Records--Data Set

On the next page of your handouts you will find another data set on olympic records (see Appendix). Notice that this data set utilizes graphs. The reason why I have included this data set is to show you two things. First, the thinking strategies involved in making and supporting generalizations are used in many subject areas, even in subject areas like math. Also, if you put this data set with the other two I have shown you, I think you can get an idea of the kinds of data sets you can create for your students.

In addition, we often use this third data set in still a different way. In this case, we might simply give students the data set and have them write a composition in which they present two or three generalizations with support. In other words, students would do it entirely on their own.

Generalization and Support--Conclusion

One added benefit of having students work with data sets like these is that they learn more "content" as they work with material to make and support generalizations. Another reason why I have shown you more than one data set and more than one activity is that just doing one of these activities will probably not be enough for many students. They
need repeated practice. That is why I showed you how to structure the activities so that they move from more structure and teacher to control to increasing independence. In the end, students are doing it entirely on their own. Advance students can even find their own data sets--given some ideas, athletic shoe advertisements, automobile commercials, American Indian hero stories, etc. I am suggesting, of course, that for students to really master these thinking strategies requires about a week or more of instruction. In my own classes I set it up one of two ways--I either provide an extended sequence of activities over a period of a week or more; or I repeat and expand the activities (with different data) in each unit I teach or every so often throughout the course.

ARGUMENTATION

In most subject areas, we ask students to give their opinions, defend a proposition, or refute a viewpoint, and yet it is easy to overlook the fact that knowing how to create effective arguments is no easy task. It involves a number of thinking skills. (See, for example, Stephen Toulmin. The Uses of Argument. Cambridge: Cambridge University Press, 1958.)

*making a claim(s);
*giving data, evidence for the claim;
*providing the warrant(s), the link which shows the relation between data and claim;
*anticipating possible objections from the audience and answering them.

The most common way of teaching students the skills involved in argumentation is to have students read and analyze models of effective argumentation and then attempt to imitate the models they have studied. The trouble with this approach is that too many
students never seem to get it. As with the activities I showed you for generalization and support, the activities for argumentation I am going to demonstrate are classroom tested activities designed to teach students the complex thinking skills involved in argumentation.

The '88 Blue Chevy--Writing Assignment

One way to find out what your students know or don't know about argumentation is to give them an assignment that involves argumentation and find out. If you will look at the next page of your handout (see Appendix), you will find an assignment that I have used to find out what our students know and do not know about argumentation.

I would like you take a look at this assignment as we read the directions and examine some of what else is here because I think you will see that this assignment is a little different than most. Most often students are given a topic to write on and nothing else. This particular assignment is what I call a case or case study, and it provides a context and data, data that could be used to support various arguments that this incident is or is not a case of police brutality. This is important because one of the mistakes we often make in designing assignments is that we assume that students have the data at their fingertips or somewhere in their brains to write on the topics we give them; and when we get the results, which are often not very good, we assume, that students do not know how to use data to support a claim. However, they might very well know how to use data to support a claim but they did not happen to have such data at their fingertips. Using this kind of assignment, I think, will enable you to gain a more accurate picture of what your students can and cannot do.

Student Pretests

On the next page of your handout (see Appendix) you will see two examples of student papers written before instruction. These papers were written by eleventh grade students. Notice that these papers contain propositions. In the first paper, the writer
claims that "the police were totally wrong in there [sic] actions with the teenagers"; however, it lacks supportable claims, and the student has only made vague references to the data in the case. While slightly better written, the second paper is not much better. The student offers the proposition that "the officers acted justly." The writer presents a couple of supportable claims such as "the description of the robbers matched the description of the suspects"; however, as with the first paper the writer really only offers vague references to the data in the case. Finally, neither paper anticipates or refutes opposing views. Obviously, these students needs some help in learning how to write effective arguments.

Slip or Trip--Activity

If you will look at the next two pages of your handout (see Appendix), you will find the first activity I want to show you for argumentation. This activity is designed to get students involved in argumentation--get them arguing and counter-arguing, but in a situation that will encourage them and one which will not intimidate them. Specifically, this activity is designed to give students practice in stating a claim or position, finding evidence to support a claim, explaining how evidence supports a claim, and in refuting opposing viewpoint. Notice the visual aspect of this activity: It provides evidence in a very concrete way--most of it is right there in the picture.

If you will please follow along as I read the situation and assignment. Now I am going to ask you to do this activity just as we would have students do it. Usually, I would have students do this in small groups, but because you are so sophisticated and advanced, I am going to ask you to do this on your own. If you would just take about five minutes and list the evidence pointing to murder and accident, and then decide if this is a case of murder or just an accident. Once you finish, then we will discuss your findings and see who has solved this mystery. Are there any questions?
Now, that you have all come up with your solution, let’s see who has the best solution. With students, I use the following questions as a guide in leading the class discussion of the problem:

*Who thinks it was murder, and could you tell us why?
*Who thinks it was an accident, and could you tell us why?
*Is there any other evidence that points to murder (or accident)?
*Could you explain or elaborate on how you evidence points to murder (or accident)?
*Is there anything we may have overlooked here?
*Does anyone see a problem with that argument (or, do you all agree with that argument)?
*Is there any other way to interpret that evidence? What else could it mean?
*Considering all of the evidence, what is the best explanation for what happened? Why?

What you have just demonstrated here in the discussion of this case is exactly what happens with students. Often, when I have run class discussions of this case my biggest problem is keeping control because students so vehemently argue their positions. Notice that I did not tell you that you must have a claim, or you must have data, or you must have a warrant, or even that you must refute opposing viewpoints. The very structure of the activity and discussion encourages students to do these things naturally.

How and why does this activity work? First, in the small group discussions students are able to rehearse their opinions in a non-threatening situation. and once groups have worked through the problem, the students in the groups are often very committed to
the solution worked out by their group. As a result, the level of discussion in the whole class discussion is often very high with most or all students participating. In addition, one of the things that happens in the whole class discussion is that as the class debates the problem, some students change or modify their original positions. As students present and debate the problem, as they hear more arguments and see more evidence, they are often convinced that their original position was weak or wrong. This stands in striking contrast to the view that most students are so egocentric that whenever they are involved in a debate their final answer is, "Well, I don't care what you say, it is just my opinion."

One important element of this activity is that there is no easy answer. This is one important reason why the activity is effective. In fact, even though I have done this activity with students many, many times, students still come up with new and interesting arguments and point to new evidence and different ways to interpret the evidence that I have never thought of before.

In the discussion it is important to use questions that encourage students to clearly present their positions, point to the evidence that supports their positions, and explain how the evidence supports their positions. As a follow-up, you might even end the discussion by having students discuss which arguments seem particularly strong and why? Which evidence is the most effective and why? Which counter-arguments where strongest and why?

Once all students have had a chance to present and debate their viewpoints, you might have students write-up their conclusions on the case. Again, encourage them to point to specific evidence, explain how evidence supports their conclusions, and they must refute major evidence and/or arguments on the other side. When they turn in their compositions, then and only then you might want to give them the author's solution, which, by the way, really isn't all that interesting. Students often come up with much better solutions.
"The '88 Blue Chevy" and "The Powers of Law Enforcement Officers"

One activity I use to teach the skills and strategies involved in argument involves "The '88 Blue Chevy" case which also includes the next page of your handout, "The Powers of Law Enforcement Officers" (see Appendix). Students are given the case and divided into heterogeneous groups of about four. Each group is asked to discuss the case and decide whether the police were justified in their actions toward the teenagers and to be prepared to present evidence and reasoning to support their position. This activity reinforces skills students learned and practiced in the previous activity.

The groups usually begin with disagreement among the members. Soon questions emerge as one student says, for example, that the police should have read the boys "their rights." Another says they don't have to because the boys weren't arrested. Students begin to raise questions: When do the police have to read someone their rights? Don't they have to tell the boys why they're being frisked? Can the police stop a car and search it for no reason? Don't they have to have a warrant to search the car? and so forth.

At this point I give the groups the information on "The Powers of Law Enforcement Officers" to help them in their discussion of the case. After the groups discuss the case in terms of these criteria, they present their analyses to the class. The following excerpt from a class discussion of "regular-level" eleventh-grade students illustrates the nature of the class discussion. (The discussion in small groups is much the same.) As the discussion began, many students were eager to present their ideas. All the teacher had to do was call on students who raised their hands or ask students who were interrupting others to wait for their turn; therefore, the teacher's remarks are not included until later in the discussion when they are more substantive.

Student 1: There's no way the police are justified. They can't even pull the car over unless, uh ... it says here, 'they have reason to believe that someone in the car has committed a crime.' Just because their car is an '88 blue Chevy...
doesn’t mean they committed the crime. There’re lots of ‘88 blue Chevies, and ...

**Student 2:** (interrupting) It isn’t just the car. We say the police have a reason to think that these are the robbers. The car’s the same; the boys fit the description of the robbers.

**Student 1:** (with exasperation) But it’s just a general description.

**Student 3:** Yeah, just because two of these boys happen to be white and one happens to be Hispanic doesn’t mean they robbed the store.

**Student 4:** How could they even tell, if they’re speeding, what the boys are?

**Student 2:** Yeah, but it sure’s suspicious. They just happen to be, it says, ‘three blocks from the scene of the robbery.’

**Student 5:** There’s another reason… uh … We didn’t all agree, but we talked about the fact that the boys were speeding. Why were they speeding only three blocks from the robbery unless they committed the crime?

**Student 1:** (sarcastically) Right, so yeah, they did it. Huh? Like it’s all like coincidences. Lots of teenagers go over the speed limit, but that doesn’t mean they robbed a store. They have a right to pull them over for speeding, but that doesn’t give them the right to do all that other stuff.

**Student 3:** You may be right. I didn’t think of that.

**Student 6:** The police always do that. I was pulled over one time for no reason at all, and they were real snotty to us.

**Teacher:** Okay, let’s get back to this case. You were saying that they have a right to pull them over for speeding but not to frisk them, search the car, what?

**Student 7:** What about … it says the robbers were armed with a shotgun. They may be armed and dangerous. They have a right to defend themselves.

**Teacher:** You mean the police have a right to defend themselves?

**Student 7:** Yeah!
Teacher: Can you talk about that a little more? What do you mean?

The discussion continues as students raise issues concerning the search of the vehicle and the handcuffing of the boys. These students are actively engaged in discussing and debating the case, and they are orally constructing arguments based on the criteria they were given and data from the case. Student #1, for example, points directly to the criteria to construct his argument that just because the boys and the car resemble the robbers and vehicle used in the robbery does not mean that the police have a compelling reason to pull the boys over. In addition, he draws on the evidence, citing the general description of the vehicle and offers the explanation that there are many 1988 blue Chevies, and just because the boys are in one does not mean that they committed the crime.

It is important to note that this is a complex problem with no easy solution. In addition, it is one that students tend to become very engaged in discussing. Perhaps because the problem is made specific and concrete rather than presented abstractly, students are drawn into the situation both cognitively and affectively. In part, their interest may stem from the fact that the boys described in the case are teenagers like themselves, but their interest may also derive from the fact that prior to the class discussion students worked collaboratively in small groups, and therefore they came to the class discussion with a stake in the solution that their group had worked out. This collaboration also seems to give them the confidence to speak up and engage in the class debate. Furthermore, the case and criteria are accessible for the particular students involved. The information on “The Powers of Law Enforcement Officers” was taken from a legal source but rewritten so that it would be clear and understandable to students.

The excerpt illustrates that students are learning complex strategies involved in argument. They are making claims and using evidence to support them. The activity encourages students to make counter-arguments because they are faced with the opposing viewpoints of their peers. In addition, the exchange shows that students are encouraged to
revise and refine their thinking when their views are challenged by others. For instance, student #3 begins to question her position after hearing the argument of student #1 that it was appropriate to pull the boys over for speeding but not for suspicion of robbery.

From Discussion to Writing

As a follow-up step in the activity, I have asked students to write a composition persuading others of their viewpoint on the case; that is, to answer the question, were the police justified in their actions toward the teenagers and why or why not? This follow-up writing is important for several reasons. The discussion usually has to be stopped without everyone agreeing on the case, so the writing becomes an extension of the classroom debate. Second, students now have an opportunity in an independent writing situation to use the strategies they have been practicing orally in the small-group and whole-class discussions of the case. Finally, students approach the task with confidence because they have had an opportunity to rehearse the arguments they might use in writing their compositions. They have heard the views of their "opposition" and see the need to construct arguments that will refute the opposition's arguments. Since there are no simple answers here, students approach the writing task as an inquiry or problem to be solved. As a result, the quality of student writing with problem-centered tasks such as this one are usually quite high (Hillocks 1986). Their written arguments are often quite sophisticated and contain the features that have been the focus of instruction--a clear position/thesis, use of specific supporting evidence, recognition of other viewpoints, refutation, and so forth.

In teaching students how to write an argument and persuade others, I have found that it is most effective to include an activity such as this one, not by itself, but as part of a sequence of similar activities. As students engage in arguing their viewpoints on a series of different cases, they practice and internalize the procedures and strategies involved in effective argument so that they are more likely to be able to perform them independently.
whenever they have to create an argument on their own (Johannessen, Kahn, and Walter 1982; Kahn, Walter, and Johannessen 1984b; and Johannessen and Kahn 1997).

Case 27--Activity

One of the most difficult skills for students to master in argumentation is refutation or counter-arguments. In fact in the two most recent studies of writing by the NAEP, the researchers found that only a little over 5% of the 11th grade students were able to effectively refute opposing viewpoints. If you will look at the activity on the next page of your handout (see Appendix), you will see an activity that focuses on refutation, although it also reinforces skills students learned and practiced in the previous activity.

(Read directions.) After reading the case put students in small groups and have them attempt to reach a consensus on whether Arlene Pfeiffer should be reinstated in the National Honor Society. Then, after 15 minutes or so--after most or all have reached a consensus, some groups may not be able to agree--reform the class. You might want to compile the results of their decisions on the board. We have found that this is an effective way to focus the discussion on the key elements of disagreement. Then, lead a class discussion focusing on the reasoning for their decisions.

This discussion forces them to consider a large audience of their peers--just as they had to do the same thing in their small groups--why, for example, an unwed mother would or would not "lead" others in the wrong direction. In other words, the activity is structured so that students must come up with counter-arguments in order to justify their decisions. For example, in attempting to explain why an unwed mother has not lost her "character," students will have to refute the opposing viewpoint that an unwed mother is not of strong character.

Here are some questions to use as a guide in leading the class discussion or in helping small groups attempt to arrive at a consensus:
*How would you define "good character"?

*What qualities of "character" does Arlene exhibit, if any?

How does she exhibit them? What qualities does she lack?

How does she lack them?

*Does "good character" have anything to do with Arlene's situation? Why or why not?

*What does "leadership" mean?

*Why qualities of "leadership" does Arlene exhibit, if any?

How does she exhibit them? What qualities does she lack?

How does she lack them?

*Has Arlene lost her "character"? Explain.

*Will Arlene "lead" others in the wrong direction? Why or why not?

*What arguments and evidence will the opposing viewpoint to? How might you refute them?

These questions help students focus in on key elements and refine their arguments and counter-arguments.

As with the previous activity there is no one answer. This inevitably leads to lively small group and whole group discussions in which students are actively practicing the thinking skills involved in argumentation.

Here is an example of an exchange that took place in one eleventh grade class:

Student #1: We thought Arlene exhibited strong leadership because instead of doing nothing when she was removed from the Honor Society, she stood up for her rights. She took her case to the Human Relations Commission. She is showing others that it is important to stand up for what you believe in.
Student #2: We thought exactly the opposite. By going to the Human Relations Commission, Arlene is just trying to get out of the mess she got herself into. If she really was a leader she should do something like speak out against having sex before marriage.

Student #1: You're wrong. When most high school girls get pregnant, they usually hide it so that nobody knows. Arlene is just the opposite. She is taking a lot of stuff from other kids in school. It shows a lot of "courage" to stay in school, keep her daughter, and face all the stuff from other kids. She is showing other kids that you can make a mistake and live with that mistake.

Students #3: You just said it: "Mistake"! By getting pregnant she made a mistake that shows she lacks leadership. A true leader would not go crying to the Human Relations Commission.

What this brief example illustrates is how the activity engages students in the skills of argumentation, particularly refutation.

Once all students have had a chance to express their views and rankings, you might want to have students discuss arguments and counter-arguments that seemed particularly strong and what made them strong, as well as those that were weak and why. Also, you might want to discuss how weak arguments and counter-arguments could be improved.

As a follow-up you might have students write a composition explaining why Arlene should or should not be reinstated in the National Honor Society. Students should include counter-arguments to refute the opposing viewpoint.

Post-Test--"The Police Were Right"--Student Essay

Remember the student essay we looked at on the '88 Blue Chevy? If you will look at the next page of your handout (see Appendix), you will see an essay written on that same assignment by an eleventh grade student after doing the activities I have shown you.
If you will follow along while I read the essay; then, we'll have a look at what the student seems to have learned from doing the activities. (Read essay.)

Notice how the student begins with a proposition that he supports with claims, evidence and warrants in subsequent paragraphs. While the student does not do as much with refutation as I would have liked him to, he does attempt to counter the opposing viewpoint. For example, the student recognizes that a weakness in his argument is that while there was a shotgun used in the robbery, no shotgun was found in the automobile. Therefore, in the third paragraph the student presents an argument designed to overcome this weakness in his position. Granted, the student could do a better job of making the explanation clearer, but nevertheless, the essay clearly shows that this student has learned the thinking skills necessary to write an effective argument.

Argument--Conclusion

As "The Police Were Right" essay seems to illustrate, providing activities that engage students in the thinking strategies essential for argumentation is one way to teach students these skills which are so important across the curriculum. In addition, students need more than one of the activities I have shown you if they are going to learn these skills. Providing a variety of activities that encourage students to practice these strategies in different situations and with a variety of materials will help students learn how argumentation applies in various subject areas. In addition, they seem to learn the content more effectively. They are not just learning isolated facts or bits of information, the activities require them to use the information provided, and when they have to use it they learn it better.

Conclusion

What I have tried to show is that the major thinking strategies of making and supporting generalizations and argumentation apply across the curriculum. The activities I
have shown you are concerned with a number of subject areas, and they more than anything illustrate that focusing instruction on these kinds of activities will enable students to learn these important thinking strategies. If we provide activities that interest students, that engage them in using the strategies they need to learn, that provide repeated practice of these strategies in a variety of situations, and that require them to contend with the immediate demands of a real audience in small group and whole class discussions, or provide scaffolding, then students will be able to think and write more effectively across the curriculum.
APPENDIX

INSTITUTE

ACTIVITY SHEETS
URBAN CRIME LEGENDS

1. In most urban crime legends, the participants are acting on mistaken impressions.

2. Most urban crime legends teach that assumptions about others are often incorrect.

3. In urban crime legends, the victims of crime are usually women.

4. Many urban crime legends take place in familiar places where people would feel secure.

5. Urban crime legends frequently make use of common, everyday situations.

6. Nearly all urban crime legends contain a moral that teaches appropriate social behavior.

7. All urban crime legends depend upon a twist of events.

8. The supposed perpetrators of crime in urban crime legends are most often men.

9. Women are generally the supposed victims of crime in urban crime legends.

10. Few urban crime legends actually involve serious harm being done to anyone involved.
Urban Legends: Crime

Urban legends are stories of events that are believed to be true though they cannot be proved. According to the teller, the story is true, it really occurred, and recently, usually to a relative, friend, or "friend of a friend." Urban legends are told both in the course of casual conversation and in such special settings as campfires, slumber parties, and college dormitories. The urban legends that follow have traveled far and wide and have been told and retold with little variation by many different people in many different places. Some of the details change (names, locations, numbers, etc.) but the basic story remains the same.

The Choking Doberman

A weird thing happened to a woman in Las Vegas. She got home one afternoon and her dog, a Doberman, was in convulsions. So she rushed the dog to the vet, then raced home to get ready for a date. As she got back in the door, her phone rang. She answered it and was surprised to discover it was the vet. Even more surprising was his message--"Get out of the house immediately! Go to the neighbor's and call the police!" It seems that when the vet examined her pet, he found that two human fingers had been lodged in the dog's throat. Concerned that the person belonging to the dismembered fingers might still be in the house, he phoned to warn the woman. The police arrived at her house, and they all followed a bloody trail to her bedroom closet, where a young burglar huddled--moaning over his missing thumb and forefinger.

The Elevator Incident

Three women from Rochester recently visited New York City. They were on an elevator, and a black man got on the elevator with a dog.

The elevator door closed.
"Sit!" the man commanded.
The three women sat.
The man apologized and explained to the women that he was talking to his dog.
The women then nervously said that they were new to New York and asked the nice man if he knew of a good restaurant.
The women went to the restaurant recommended by the man. They had a good meal and called for their check. The waiter explained that the check had been paid by Reggie Jackson--the man they had met on the elevator.
The Killer in the Backseat

As the woman walked to her car in a parking lot, she noticed a man following her. She jumped in her car and tore off, only to notice to her dismay that the man was following her in his car. The woman drove through downtown Phoenix trying to elude him, passing stores, houses and bars. When that failed, she drove across town to the home of her brother-in-law, a policeman.

Horn honking, she pulled up and her brother-in-law came running out. She explained that a man was following her and said, "There he is, right there!"

The policeman ran up to the man's car and demanded to know what he was doing. "Take it easy. All I wanted to do was tell her about the guy in her back seat," the man said.

And indeed, there was a man huddled in the woman's back seat.

The Sweet Taste of Revenge?

She was in her seventies. After purchasing her cup of coffee and a chocolate candy bar, she gazed around the crowded cafe looking for a seat. The only table available was near the door, and at it sat a punk rocker with bright orange hair.

After sitting down, she realized she had left her gloves on the counter and got up. On returning, she noticed her candy bar had been unwrapped and a bite had been taken out of it. Without saying a word, she finished her bar and coffee then calmly reached over and broke a piece off the pie that young man was about to eat. He in turn did not say a word.

Finishing the pie, she quietly got up and walked out the door to her bus stop. She opened her purse for her bus ticket and, to her horror, saw a fully wrapped chocolate candy bar sitting there.

The Jogger's Billfold

In New York City's Central Park, a jogger had been running along early one morning at his customary pace, surrounded by streams of others out getting their prework exercise. Suddenly another jogger passed by him on the path and bumped him rather hard. Checking quickly, the jogger discovered that his billfold was missing from his pocket, and he thought, "This can't happen to me; I'm not going to let it happen." So he upped his speed a bit, caught up to the other jogger, and confronted him. "Give me that billfold," he snarled, trying to sound as menacing as possible, and hoping for the best. The other jogger quickly handed it over, and our hero turned back toward his apartment for a shower and a quick change of clothes. But when he got home, there was his own billfold on the dresser, and the one he had in his pocket belonged to someone else.
The Double Theft

A woman customer in a department store goes to the lavatory in the ladies cloakroom there and puts her handbag on the floor beside her. The lavatory partitions are of the sort which leave a gap between wall and floor, and a hand comes through this gap and whips her bag away. Before she can emerge, the thief has escaped, but she reports her loss to the store manager. She returns home. A few hours later her phone rings: "This is Harrods; a bag has been found which may be yours; please come to the manager's office to identify it." But when she reaches the store, there is no bag there, and none of the staff have phoned her. Returning home, she sees her own bunch of keys in the lock and finds the flat burgled and all her jewelry gone.


URBAN CRIME LEGENDS--STUDENT ESSAY

VERY LITTLE HARM

Nearly all urban crime legends end without serious bodily harm being done to the subjects of the stories. In the case of "The Choking Doberman," the woman who appears to be the main subject of the story escapes her predicament without being hurt. The three nervous women who had felt very intimidated by the black man in the elevator left this uncomfortable situation feeling embarrassed but safe. A woman in a car being pursued by a man who is, in her eyes, a threat is saved from harm by the very man she felt threatened by in "The Killer in the Backseat." In the legend "The Sweet taste of Revenge?" an elderly woman "fights back" against a perceived aggressor (a punk rocker) only to find that she has not been the victim of what she imagined to be the punk's lack of respect. In yet another case of a victim "fighting back" for his rights, the man in "The Jogger's Billfold" experiences a false sense of injustice and then feels very self-righteous not at his own expense but at that of his "attacker." Even in the one case which involves the actual crime of theft, the subject of "The Double Theft" is not physically harmed in any way. Therefore, in all six of the cases presented (which represents a large body of urban crime legends), none of the victims or perceived victims had been bodily harmed, although few of them walked away with their pride intact.
Fig. 1. Distances jumped by Olympic gold medalists in the long jump, 1896–1980.

Fig. 2. Olympic records for the men's 100-m, 200-m, 400-m, and 800-m races.

Fig. 3. Olympic records for the 1500-m, 5000-m, and 10,000-m races.

Distance jumped in feet

Year of olympiad

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The '88 Blue Chevy

At 11:00 p.m. on July 31, three youths, all male, two Caucasian and one Hispanic, robbed an all-night liquor and food mart located in a high-crime area of the city. Threatening the proprietor with a shotgun, the boys took several bottles of liquor and cartons of cigarettes as well as the cash from the register before escaping in a 1988 blue Chevy for which witnesses got no license number.

Five minutes later, after receiving news of the robbery via the police radio, Patrol Car 54 spotted an '88 blue Chevy which was exceeding the speed limit on the expressway three blocks from the scene of the robbery. Calling for assistance in apprehending armed-robbery suspects, Patrol Car 54 gave chase. Moments later, five police cars converged on the blue Chevy and forced it to the side of the road.

Officers, with guns raised, ordered three male occupants, two Caucasian teenagers and one Hispanic, out of the car. The police immediately shoved the boys up against the police car and frisked them. As this was happening, one of the boys demanded to know why they had been stopped. The officers made no response. No weapons were found on the boys, who were then handcuffed and put in the back of the police car. Two officers checked via police radio on vehicle registration and on past police records for the boys. One of the boys did have a police record but not for robbery. While this was taking place, other officers were searching the car. All three of the boys objected loudly as the police pulled the seats out of the car and removed items from the trunk. A switch-blade knife was found under the front seat. The police confiscated the knife, but when nothing else was found, the boys were allowed to put the car back together and go on their way.

Question: In this incident, were the police justified in their actions toward the teenagers? Why or why not? What evidence and reasoning leads you to your conclusion?

Adapted from
PRETESTS--THE '88 BLUE CHEVY

The '88 Chevy

I think that the police were totally wrong in their actions with the teenagers. Even if they thought that they had robbed a store. The cars were identical and the boys were alleged to have a gun, but that means the police should have been cautious not brutal.

The police were too brutal about it even if these boys were the robbers it is illegal to harass them. The police had no right to destroy anything in the car either.

The '88 Blue Chevy

In the case of the '88 blue chevy, I believe the officers acted justly. A 1988 chevy is not a common car. It must have looked like too much of a coincidence after hearing the report and seeing the identical care speeding away from the liquor store area. What makes the evidence more incriminating is the fact that the description of the robbers matched the descriptions of the suspects. The treatment the suspects received was fair because the robbers were reported as armed and dangerous. I think I have shown more than enough evidence to support the officers in question.
SLIP OR TRIP*

At five-feet-six, and a hundred and ten pounds, Queenie Volupides was a sight to behold, and to clasp. And when she tore out of the house after a tiff with her husband, Arthur, she went to the country club where there was a party going on. She left the club shortly before one in the morning and invited a few friends to follow her home and have one more drink. They got to the Volupides house about ten minutes after Queenie, who met them at the door and said, "Something terrible happened—Arthur slipped and fell on the stairs. He was coming down for another drink—he still had the glass in his hand—and I think he's dead. Oh, my God—what shall I do?"

The autopsy concluded that Arthur had died from a wound on the head, and confirmed the fact that he'd been drunk. What do you think happened?

You are a member of the investigative team. Your team must determine whether this is a case of accidental death or murder. Analyze the evidence and photograph of the scene of the incident. Decide whether this is a case of accidental death or murder.

Evidence pointing to accident. Evidence pointing to murder.

You examine the evidence and reach your conclusion. But the other members of the team disagree with your assessment. After analyzing the autopsy report, evidence, and photograph of the scene of the incident, you decide you will present a report to the investigative team to convince them to change their minds.

Write a report that you will present to convince the others that your conclusion makes the most sense.

The Powers of Law Enforcement Officers

According to the law, police have the following powers in detaining or arresting suspects. They may stop a car, search it (without a warrant), and detain, frisk, and question the driver and other occupants,

- if they have a reason to believe that someone in the car has committed a crime or that the vehicle contains contraband or the fruits of a crime,

- if they use only the amount of force which they reasonably believe necessary to defend themselves or another from bodily harm,

- if, before questioning any suspects who are detained in a police car or deprived of their freedom in any significant way, they advise them of their constitutional rights (to remain silent and to have an attorney present).
The following is an actual case which occurred in Marion Center, Pennsylvania.

Arlene Pfeiffer, a seventeen-year-old high school senior, was class president for three years, a student council president last year, and a member of the National Honor Society since tenth grade. In August, prior to her senior year, she gave birth to a daughter, Jessica, and decided to keep her. In November, Arlene was kicked out of the honor society by her high school. In January, the school board agreed to her removal. Now Arlene is taking her case to the Human Relations Commission.

What is at issue is not her grades—they have remained high—but rather two other qualities the honor society demands: "leadership" and "character." The question is whether an unwed mother has lost her "character," whether she would "lead" others in the wrong direction.

Should Arlene be reinstated in National Honor Society?
POST-TEST--THE '88 BLUE CHEVY

The Police Were Right

I believe that the police followed the right procedures when they pulled the kids over. From the evidence they had received it was really the only thing they could do.

I found five observations in which I reason with the police. The first is that there were three teenagers, two while and one Hispanic, at the robbery, and three teenagers of the same description were in the car. Second, they were told to look for an eighty-eight blue chevy of the same description as the one the boys were driving. The car was exceeding the speeding limit, which gives one the idea that it could be a get-away car.

Also, even though the police did not find a shotgun, there was a knife in the car, which might not seem like a lot but it is a form of a weapon, and it was under the seat which could mean it was hidden. And the last, is that the three could have taken the liquor and cigarettes elsewhere, dropped it off, and drove on.

These things could give one the impression that the three were guilty, so the police had to treat them cautiously, and as if they were the real robbers. They had to frisk them because it's procedure, and they had to raise their guns because the police thought they were armed with a shotgun and could have had other weapons. They had to be aware of dangers if they had been the real robbers. The police have a right to draw their weapons and protect themselves or others from harm if they believe the suspects are armed and dangers as they thought these robbers were. Also, if they'd been guilty and the boys asked questions, as they did, the police don't have to answer because in a real case, it could be used in court. They had to search the car so they had to take the seats out because that's a possible hiding place.

These things show how the police took the right steps in what they did. After all, if you had these five pieces of evidence to go on wouldn’t you take precautions such as these?
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I. DOCUMENT IDENTIFICATION

Title: Making the Write Connections: Thinking and Writing Across the Curriculum

Author(s): Larry R. Johannesen

Corporate Source (if applicable):

Publication Date: 10/07/97

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