How Do We Decide How to Teach?

"We've planned so many of these integral units that we have our procedure down pretty well, I think," Emmy Perez said as she opened the meeting of the Central Station Middle School staff with her usual optimistic flair.

"I'm glad you're chairing today, Emmy," Ted volunteered as he sat down with his cup of coffee. "Sam led our last planning session like a drill sergeant and nothing makes me more feisty than all that regimentation."

"Well, we got our work done in short order, you must admit," Sam smiled as he joined the group. "Emmy, when you chair you usually strike a note somewhere between Ted's laid-back approach and my pushing for consensus. That's not bad for a second year teacher."

Emmy got the attention of her colleagues. "Everyone's here so let's get started. This way we have of thinking of our students in grades six, seven, eight, and nine as two groups rather than as four was new to me when I came here and it certainly allows for a greater variety of possibilities in instruction. Under Sam's leadership we've completed the initial planning of the integral studies blocks for grades eight and nine this year. Our task today is to begin doing the same for grades six and seven."

"I've had some concern that, in our planning of units, we might have a potpourri effect, teaching those things that interest us rather than making certain the curriculum is informed by what truly matters," Karla Hubbard interjected. "Remember, we agreed that our prime goal in planning is to help the students learn to unwrap their gifts, to share each other's joys and burdens, and to seek God's shalom in every area of life. Second, the topic for each unit will address three dimensions: the students' own concerns, issues that are presently of concern in society, and content that helps students experience and come to know God's world. In that respect, each topic will consist of a problem posed individually, communally, and in the broader creation.

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"Karla, it's funny you should mention the focus that textbooks provide," said Emmy. "In preparation for this meeting I borrowed the social studies textbook being used at Mountain City in grade seven. There are twenty chapters in the book -- listen while I read the topics covered. People and culture, three early civilizations, Greece and Rome, three religions, India and China, early African civilization, the Middle Ages, the rise of Europe, Europe changes the world, lands and people of western Europe, France, eastern Europe, the USSR, North Africa and the Middle East, Egypt, the Ivory Coast, Asia, Japan, Indonesia, Oceania, and Australia."

"Talk about being all over the map!" laughed Sam. "Those poor seventh graders are going to be swamped."

Ted agreed. "I happen to know that the seventh grade teachers over there do as good a job as is possible with that textbook, using cooperative learning and other interactive strategies. Still, there is far too much breadth and very little depth in trying to cover so much material -- and it's depth that we want."

"The Mountain City teachers have asked me for copies of the units we have planned up to this point," Karla said. "I told them we had already agreed that anything we have done we will gladly share with them, provided they are willing to tell us ways they think our units could be improved."

Sam smiled, "I'm glad they think our work might be helpful to them. But you know, it won't really work for them to simply teach the units we have planned. It's the planning itself that really helps us understand what we are doing. Still, maybe it will give them courage to begin when they see our bungling efforts."

"We'd better get on with the work at hand," said Emmy. "I've noticed that when we plan units it seems to work well when we begin with a problem concerning people. For a possible problem or theme for this year what do you think of, 'Can there be ideal cultures?' as our guiding question?"
"How would you work that out?" asked Ted.

Emmy began to sketch a design on the chalkboard. "I've been thinking about the first question we always try to ask when we plan units. 'What is God's intention for the particular area of creation that we are studying?' In answering that we might begin with asking the students to think about what a culture would be like if it were exactly the way God wants people to be. Students might brainstorm concerning how people in such a culture would live. What would government be like? Would there be taxation? How would they care for their sick, for little children, for the elderly? What kind of transportation would they have? What kind of political system would they have? How would they educate their young? Would there be schools? What kind of recreation would they have? What kind of music would they have? Would their society be competitive?"

"This is an interesting idea," said Sam. "After they've finished describing this culture it would be nice if we could think of a book that they could read to follow the theme. Animal Farm is one possibility."

"Perhaps a short story would be appropriate at this point," suggested Karla. "But I agree that the idea has a great deal of merit."

"And after the introductory reading we could study people of specific countries and compare different aspects of their lives with our ideal community," said Emmy.

Ted shook his head. "I'm still concerned that all the students will end up with is a lot of facts that don't mean anything to them. What would happen if we were to show the kids the different large areas of the world, describe some general characteristics of each area, and have them select the area they would like to begin with? Then each group of four or five students would select a country within that area to research. They would work cooperatively and discover and then teach each other information about the people, how they live, their music, art, literature, always comparing and contrasting that culture with their original concept of an ideal society. Then a member from each group would be responsible for teaching that information to one other group. Our group discussion would focus on generalizations the students could make concerning the people of that part of the world and contrasting them with generalizations concerning the ideal society they have described. And, in keeping with our set of three questions that we always ask, they would try to determine what changes might be made if that society were to live according to the way God structured creation."

"I can help a great deal with their research concerning literature and art," said Karla, "and we have such a diverse population in this city that it might be possible to find people from these different countries to work with us. In fact, I suspect the students will be able to get information from the city hall concerning the number of people we have in Mountain City who have origins in the countries we are studying. I know the public library will also be a great source for information."

"We'll want to encourage the teams to do a lot of work with charts and graphs to keep the comparisons with different countries very visual. You know, we're all going to learn a lot from this," laughed Sam. "I can't wait to work with them on finding out about music. But how many of these topics do we hope to study during the year?"

"We're using a two-hour block every day. Why don't we begin with one geographical area and plan for a four week period," suggested Emmy. "We want to keep to our 'depth rather than breadth' policy, but they are only sixth and seventh graders and we will want to watch how long their interest is retained in an area. Let's give all of this some thought and in our next planning session decide exactly how we will begin."

As teachers plan for instruction they will want to first decide what kind of classroom environment they hope will result from the way they choose to interact with students. Palmer (1983, 70-71) describes the effect of teaching on the learning environment as follows:

To sit in a class where the teacher stuffs our minds with information, organizes it with finality, insists on having the answers while being utterly uninterested in our views, and forces us into a grim competition for grades -- to sit in such a class is to experience a lack of space for learning. But to study with a teacher who not only speaks but listens, who not only gives answers but asks questions and welcomes our insights, who provides information and theories that do not close doors but open new ones, who encourages students to help each other learn to study with such a teacher is to know the power of a learning space.
Palmer (1983, 69) believes that to teach is “to create a space in which obedience to truth is practiced”. That kind of space is not one in which the teacher is active and the student is passive. Rather, teacher and students are actively engaged together in learning and leading each other to further learning. If, as we have said, we do not know as individuals in isolation from each other, then it is also true that we do not learn as individuals either. Therefore, the classroom environment should be one in which the students are invited to learn by interacting with the world and with each other.

In some classrooms, interaction is carried on in ineffective ways. At times the questions being raised by the teacher are primarily for exposing ignorance and the questions being raised by students are designed to score points with the teacher or to help the student look more knowledgeable than the others. In fact, research suggests that overall students ask few questions in class (Kooy forthcoming). The majority of the questions they do ask are procedural, along the lines of, "How do you want us to do this?"

Palmer suggests that we must arrange instruction so that the classroom is a hospitable environment for learning. A hospitable learning environment is needed not simply because it makes students feel safe and happy or because it makes learning painless. Rather, it is needed to make the painful learnings possible. Sometimes in teaching it is necessary to expose ignorance and to challenge information that is only partially true. None of this can happen productively in an environment where people feel threatened or judged (Palmer 1983, 74).

How do teachers create a classroom with an environment hospitable to learning? In part, by arranging meaningful learning units so that what is being studied in the classroom is an important part of what is really happening in the world, thus bridging the gap between learning and living. In part, by planning instructional strategies that actively engage students with the study and with each other. And also, by ensuring that the dialogue between teacher and students and among students is as encouraging as possible (and free of sarcasm) as together they learn what it is to be obedient to truth.

Providing a Biblical Framework for Units of Learning

Having selected the area for study, teachers will want to work to identify the significant biblical insights and responses that they will be seeking from their students. How do varying religious perspectives enhance or distort our understanding and acting in this area of life? What is God's intention for this area? How can we work together to bring shalom? In what ways will the varying gifts of students be utilized and developed?

We know that teaching in a way that encourages these insights and responses is difficult for teachers. For example, in one school groups of sixth-grade students were drawing plans for an ideal recreational park. When they were asked whether they thought there were any guidelines from the Bible that might let us know how God wants people to use recreational time, they seemed puzzled. Many of them really did not seem to know what we meant when we asked them how sin had distorted or broken that part of life.

Student: It's hard for me to answer a question like that. We talk about things like that in Bible sometimes, but I don't know what it really has to do with what we're studying now.

The problem may be that teachers too often assume students transfer what they learn in Bible class to their studies in other areas. However, such transfer doesn't usually happen without help from the teacher.

Blomberg (1991, 9) suggests that one way of allowing Scripture to direct our thinking in any area of study is by encouraging students to ask the following guiding questions concerning the topic they are studying:

1. What is God's intention for the particular area of creation that we are studying? What does it mean to treat these creatures with integrity, that is, in accordance with their God-given calling in life?
2. How has this purpose been distorted by the effects of sin, as reflected in human idolatry and the outworkings of God's Word of judgment? Has this part of creation been severed from its interconnections with the rest so that it is thought to stand on its own as an absolute?
3. What are the avenues by which we may hope to bring healing and reconciliation? In what ways does the gospel impel us to action so that the Lord's shalom might be at least partially restored, on the basis of Christ's mighty work of redemption?
These three questions can be related to the biblical rhythm of knowing that we have described, a rhythm of immersion, withdrawal, and return. They can thus also be seen as one specification of the play, problem-posing, and purposeful responding model for curriculum. We need to open ourselves to the Word of God, to listen to God's voice to hear his will, in an attitude of humility and trust. We need to look critically, with spiritual discernment, to see the effects of sin. And we need to recognize that our knowledge brings with it responsibility to act as agents of reconciliation. In this way, we carry out our calling to be conservers, discerners, and transformers.

It is also important to think of the many different ways of knowing in planning, so that our curriculum planning is oriented to unwrapping students' gifts. We should also think of the many ways in which creation functions. One model that is helpful for the purpose has been developed by the authors of Living in Hope (De Moor 1992). They call it the “PERSIATE + G” model. This is an acronym for Political, Ethical, Religious, Social, Intellectual, Aesthetic, Technological, Economic, and Geographic. Another useful tool for keeping the diversity of creation in view is the modal model, adapted from the work of Dooyeweerd (1969) and his colleagues. This model identifies fifteen different created aspects of experience: confessional, ethical, jural, aesthetic, economic, social, lingual, techno-cultural, analytical, sensory, biotic, physical, kinematic, spatial, and numerical.

Within the context of the biblical perspective on creation, the fall into sin, and Christ's redemptive work, and respecting the rich diversity of creational functioning, teachers will plan a range of problems that can serve to deepen students' insights into the area. They must be alert as well to the problems that students might themselves pose. In fact, teachers must encourage students to pose their own problems and will arrange ways for them to seek solutions to these problems.

A curriculum for responsive discipleship will have the promotion of service as its goal. Our wisdom finds its meaning and coherence in Christ not merely intellectually (as critique of secular perspectives and promotion of biblically-informed perspectives) but as bodily service of Christ in all areas of life. This is our spiritual worship. A Christian curriculum will seek to unwrap individual gifts in order that we may bear the burdens of others as we communally seek the coming of the kingdom as shalom.

In unwrapping gifts, we will wish to take account of what is known about children's growth and development. It will be appropriate in each unit to focus on certain skills necessary for exploration of the problems posed. Sometimes it will be necessary to take time out from the problem itself to conscientiously practice such skills. We need to keep in mind, however, ways of relating these skills to the broader problem context.

**Examples of Integral Units**

One area that might be addressed by means of an integral unit is: How should natural resources be developed and used? In the context of broadening students' experience of the range of resources that God has created, the first of the three questions may be explored. In this case we ask, What resources did God place in the world? What was his intention for those resources? How do we use those resources to glorify God and to serve our neighbor? How do we treat each of those resources with integrity, using it according to its unique qualities? To respond to the problem posed by this question, students will need to study Scripture and other sources.

We will want to link this exploration with students' own concerns. We can begin to do this with questions such as: What do you want to buy? What things do you wish your family would buy? What kinds of natural resources does the manufacturing and use of each of these objects require?

In addressing the second of the basic questions, the students will attempt to discover what goes wrong in the way that we use resources. Who uses most of them? At what rate are they used? Answers to these questions will require information from science, social studies, and math. Literature, art, and drama will enrich students' understanding of the issues involved.

Finally, how can we respond to Christ's work of redemption by caring for and using natural resources in keeping with God's intention? What steps can we take locally to do this? What steps could be taken in the broader community and globally? What responsibility do various agencies and groups, such as governments, businesses, and consumers, have in bringing healing to creation?

Another area that might be explored in an integral unit is: What kinds of personal and group conflicts arise from the way that people of a nation relate to each other? Student concerns can surface through questions concerning problems people have with personal relationships.
Next the focus would be on coming to understand how God wants people to relate to each other personally as well as on a national level. What are the biblical guidelines for relationships between people? When addressing how relationships are broken at the national level, the students might study events such as the American Revolution, the Civil War, or equal rights issues. Statistics will be one source of necessary information. The effects of science or technology on relationships would be an important part of the study. And the examples of literature, art, and music that might be part of the unit are numerous.

Then comes the question: How can relationships at the personal level and at the national level be restored? Students are invited to respond purposefully, and to creatively brainstorm ways this might and must occur.

A third area of creation to explore would be that of work. A primary focus could be their own world of work as students. A problem posed early on might be: Why should people work? In exploring the problem, students would discuss what types of jobs they would like to have and why. How do jobs change as society changes? What kinds of work do their parents do? What did their grandparents do? Their great grandparents? What would life be like if no one ever had to work? Visits to different occupational sites and interviews with people of different ages concerning work would be part of their immersion in the topic. Students might read different essays on work and discuss with each other attitudes toward work.

Next, they would be directed into finding out what God's intention is for our work. Again, they would study Scripture and other related readings. Also guided by Scripture, they investigate what goes wrong with work. Why do some people find it very boring? How does greed distort work? In what ways does work sometimes lead to breakdown of relationships? Purposeful responses to the problems raised by these questions will lead groups of students into study of topics which are ordinarily thought of as part of social studies, technology and science, mathematics, literature, art, drama, and music.

Finally, as in every unit of study, the students attempt to find ways that people can work in keeping with God's intention.

Developing an Integral Unit

We are suggesting that, to as great an extent as possible, at every grade level, the curriculum should be organized around integral units. This is a way of helping students see the structure of creation and it is closest to the way they experience life. These units, then, become the centerpiece or core of instruction.

Many teachers at the lower elementary level have found this kind of organization relatively easy to do since they are responsible for teaching all subjects in large blocks of time. However, teachers in grades five through twelve have had far more difficulty. This is in part because of a long tradition of separate disciplines, which encourages teachers at the tipper levels to think of themselves as "music teachers," "science teachers," "math teachers," rather than primarily as teachers.

In order to help teachers over the hurdle of team-planning their first unit, we offer the following guide for planning at any level. The steps of the guide are important but the order in which the steps occur will depend on the topic, the teacher, and the team.

**Step 1.** As a team of teachers, select a topic or a theme for the unit. This should arise in part from personal concerns of students. Students at the middle school and high school level would like answers to a great variety of questions. Some examples are:

With all the different religions in the world, how do we know ours is the right one?
Why does God allow such extremes of wealth and poverty in my community?
What kind of job will I have when I leave school?
Why don't girls go into puberty at the same time boys do?
Why is it that some people are popular and others aren't?
How can I figure out what my place is in the universe?

The topic for the unit also arises from common issues people currently face or will face in society. Examples are:

Why are so many people getting AIDS?
What kind of environmental problems will society face during our lifetimes?
If God is in control, why does he allow terrible things to happen such as rapes, murders, and starvation?
Finally, the topic arises from areas of knowledge that will increase students' understanding of God's creation. Examples are:

- What makes different cultures rise and fall?
- How should natural resources be developed?

The topic should neither be so general that it is beyond the scope of a profitable investigation nor should it be so narrow that it restricts an integral study. It should allow students the space to play around in creation, without being so large an area that they feel lost or overwhelmed.

A team of teachers might select several themes for study at each grade level, the number depending on the grade level, the team, and the topics. Or, if grades are to be combined for the studies, certain topics might be studied each year, thereby ensuring that each student will encounter many different topics in the course of the school years. When you are first starting out to develop integral units, of course, you should set your sights on one topic. Later, when you are more proficient and confident, you can gradually add more.

**Step 2.** Have each teacher brainstorm independently for two or three minutes in order to identify learning activities that relate to the theme or problem. These learning activities may include people, topics, questions, ideas, or resources. Next the teachers will share their ideas with each other in order to help everyone see the richness of the theme. They will also identify the connections that exist between the different aspects of the theme.

As they brainstorm together the central theme or problem might be placed on a chalkboard with a circle around it. Spokes could be drawn out from this hub with aspects of creation (or subject areas when you are first making the transition from a subject-based curriculum) written on each. As each idea or suggestion is made, it could be listed with the subject area where it seems to belong. This will give the teachers a graphic illustration that will reveal areas that are not being covered and will help focus attention on areas that are being ignored. Such a diagram might look like this (Van Brummelen 1988, 125):

![Diagram](image)

**Step 3.** Discuss the guiding questions concerning God's intention for this aspect of creation, how sin has distorted this purpose, and how healing and redemption may be brought about.
Step 4. Write a short description of the unit to allow parents, students, and others in the school to understand what the focus of the learning experience will be and what the experience will be like. Describe how this topic relates to a problem or issue the students face or will face.

Step 5. Record the questions the students have already raised concerning this topic and how these questions will influence the unit. Student questions should be the point of entry into the study and are therefore a critical part of unit development. We want our students to be active problem-positors.

Step 6. List your major objectives in terms of student outcomes. Each objective should relate to the focus of the problem and to the guiding questions as well as to the questions the students have raised. A well-formed objective is clearly stated and avoids ambiguity. Each objective should tell what the students will do, what the desired outcome will be, and what criteria will be for an acceptable level of performance in terms of quality, quantity, or time. In this way, you will always have students' purposeful responses in view as you lead them through the unit.

Step 7. Identify the skills, knowledge, and content the unit is attempting to address. Specific mention should be made concerning how different subjects of the curriculum are naturally addressed in this study, so that parents, teachers, and students may be reassured that an integral approach deals adequately with areas of traditional importance.

Step 8. Describe the learning activities in detail. The activities should be identified as initial, ongoing, culminating, evaluative, or a combination of these.

Step 9. Outline plans for assessing learning. This may be in the form of student projects and it may include tests.

Step 10. Note the resources that will be needed. What literature will be available for students as part of the unit? What art forms will they encounter? What music? What people will they meet? What places will they visit?

Step 11. Draw up a time line for the unit. This should include when and where activities will occur, deadlines, responsibilities, and any other dates or times that are important to the success of the unit.

Step 12. Decide which teachers and students will be responsible for specific activities.

When planning integral units it is not necessary that all subject areas be represented in each unit. It is far better to allow an honest representation of information from subject areas that naturally flow from the central theme or problem than to have activities that are not conducive to learning simply in order to have every subject area represented. In addition, teachers should not feel compelled to plan all instruction in every subject area as part of a unit. For example, even though a particular unit might include instruction in the use of graphs or statistics, mathematics might at the same time be taught sequentially in a disciplinary framework.

Teaching Specialized Studies

Gary Wiltenberg walked to the table at the front of the library where the teachers were meeting. An expectant hush settled around the room since everyone was curious about what he would have to say concerning his attempt to use different instructional strategies. "As most of you know," he grinned as he began, "I was more than skeptical about this whole idea of using interactive instructional strategies in my classroom. In fact, I was downright against it. I'm basically a business teacher and I have always used workbooks and multiple choice tests so that the students would know exactly what was expected of them and where they stand. That's the way I learned in my own business courses and I could get a job as a tax consultant on a full-time basis any time I decided to give up teaching." He looked embarrassed for a moment. "As a matter of fact, I almost did halfway through last semester when I was in the middle of this procedure."

"It's hard to teach an old dog new tricks and at thirty-eight I was beginning to feel like an old dog. Behind my frustration with teaching, there was still the conviction that a long time ago I believed that God had called me to it. So, I thought I would give it one last shot, and that seemed to mean giving some new ways of teaching a try. The approach I want to tell you about occurred in my grade twelve economics class. I added a unit on international business to that course last year and as part of that unit I wanted the class to learn about
the European Community. I tried to plan in terms of play, problem-posing, and purposeful responding. I also thought this would be a good time to use one of the instructional strategies we studied last year. At least it would keep the committee happy if I tried.

"The procedure I chose to use is called KWL Plus (Manzo and Manzo 1990). "This stands for what students know, what they want to know, and what they have learned. It's a procedure you would use before the students read, while they read, and after they have read. However, that procedure seemed a little weak for my purposes so I combined it with some ideas from the Guided Reading Procedure (Manzo 1975). The idea is that the students should learn a great deal more about the topic and relate it to what they already know as a result of the dialogue that occurs than they would if you simply lectured on the material, I should tell you that it didn't work perfectly and I really wasn't very comfortable teaching this way. But it worked a lot better than I thought it would.

"This is the way I used it. When I introduced the topic of the European Community I asked the class to brainstorm everything that they already knew about the E.C. I guess you could call this 'playing with the concept.' I thought no one would know anything but I was really surprised. Of course some had never heard of the E.C. but some students knew such things as the following: They thought it must be made up of Common Market countries. They had heard the plan was that all of the countries will have a common currency, although they thought Thatcher had been against that and they aren't sure where the present Prime Minister stands. Citizens of the countries will not need passports to travel from one country to another. The countries are going to agree on standards for products they are making. Some of the students think they will have a huge central E.C. military force and there was some argument concerning whether or not that was true. As they talked, I filled in the first column of the table. Even when I knew what they were saying was incorrect, I still put it on the board, although it almost drove me crazy to let incorrect statements appear before them. But that's the way the procedure works."

Gary shuffled through his papers while the rest of the teachers glanced around the room, Each wondered whether the others were as amazed by this demonstration as they were. Had Gary really taught this way, after all his comments about the lack of "academic rigor" when you use these strategies?

"The next thing we did," Gary continued, "was to make the problem as personal as possible. I asked the students what they thought they needed to learn about the E.C. Things got a little rough at this point because there are a couple of kids in there that clearly don't really want to learn anything. But the majority of the students carried the day and we came up with a list. As they talked I listed their ideas in the second column. Their list included such questions as: How will they keep the Germans from dominating the E.C., given their size and strength? What will all of this mean for trade with Canada and the United States? Will the Japanese still be allowed to have holdings in Western Europe? How will they figure out how each country's present currency is valued in relations to the common currency? Will they try to have a common language? Will they try to have common political systems?"

At that point the KWL table on the board looked like table 3.

<table>
<thead>
<tr>
<th>Know</th>
<th>Want to Know</th>
<th>Learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made of CM countries</td>
<td>Which countries exactly?</td>
<td></td>
</tr>
<tr>
<td>Use common currency</td>
<td>How to evaluate curr.?</td>
<td></td>
</tr>
<tr>
<td>Thatcher against</td>
<td>Prevent German domination?</td>
<td></td>
</tr>
<tr>
<td>No passports between</td>
<td>Imp. For Can &amp; U.S.?</td>
<td></td>
</tr>
<tr>
<td>Standards for products</td>
<td>Japanese Holdings?</td>
<td></td>
</tr>
<tr>
<td>Central military force</td>
<td>Same Political systems?</td>
<td></td>
</tr>
</tbody>
</table>

"Next I wanted the class to read about the European Community. That topic isn't covered in our textbook, but I found excellent articles in news magazines and newspapers. I told them each to read one article and to try to remember all that they could because after they had read I intended to record on the board whatever they remembered. The class read silently for about fifteen minutes. At that point I had them turn the articles
over and tell me the details of what they had read. As they talked, I recorded all the information in the third column. In addition, when they corrected some of their earlier misinformation, I changed it on the board. Sometimes they disagreed about the accuracy of certain points so we made a list of questions along the side. All of this was a means to purposeful responding.

"At this point, I had them reread their articles to help them self-correct their inaccuracies and to try to recall additional details. They closed their books and we made corrections and additions on the board.

"I then asked them how they thought all of that information could be structured for note-taking. They had found details concerning:

a. the composition of the European Community;
b. reasons for the E.C.;
c. citizen's rights in the E.C.;
d. setting standards for currencies and products;
e. implications for other countries.

"At that point I divided the class into four groups. I had twenty-eight students in the class and so there were seven students in each group. I assigned the students to the groups, making sure that each group had one or two of the best students and no more than one who was a behavior problem. Each group picked one of the four categories and was responsible to find and organize information on that topic.

"The next day was spent in the library doing group work. I walked around most of the time watching the groups work but there were some problems, I could tell. In one group, one girl seemed to be doing all the work. In another group, the students really weren't focused on what I considered was the most important information. I tried to correct both of those situations but didn't really know how. I could use some suggestions for what to do in those cases.

"After two library sessions, we met back in class. Seven new groups were formed with one member from each category in each of the seven groups. It was the responsibility of each class member to tell his or her group what their category group had learned. Notes were taken at this point. At the end of the period I collected one notebook from an average student in each of the seven groups. I looked through the notes taken that day to see whether they were as complete as I wanted.

"The next day I began the class with filling in the gaps that I had found in their notebooks. That took only a little while. Then we had a discussion of how countries would interact if they were being guided by biblical teachings. We talked about how that compared with the European Community, the strengths and weaknesses of the design for the European Community, and implications it holds for the future. The discussion was really great and, for the first time that year, I felt that every student was interested and involved. In addition, I gave a pretty stiff test and after grading it I felt satisfied that the students had learned a great deal."

"I don't get it," said Cal. "What you did sounds great to me. If the students were involved, if they did well on the test, and if you were satisfied that they had learned, why are you so uncomfortable with what you did?"

Gary looked around the room, "For most of my students, this will be the only time they ever study economics from a Christian perspective," he said. "While it is true that they learned a great deal about the European Community with this style of instruction, I feel sick when I think of all the topics we could have covered in the days that we spent on this one. When I shared that concern with the committee on instruction they assured me that it is far more important for students to really be involved in learning a few things than to quickly go over and memorize a great deal of information. They reminded me that business courses are being effectively taught with the case-study method and these approaches would work well with case studies. They said it is far better for students to learn how to think about new concepts than for them to cover a lot of information. But frankly, how do they know? I'm the only business and econ. teacher in this school. There is no one I can talk to about my discipline.

"And some other things concern me," he went on. "The students that sat back and did very little in the small groups did fairly well on the final test. But that's because someone else did their work for them. Do I grade them on what they learned or do I grade them on how well they collaborated? Also, the committee
I thought I should have given a group grade on how well the group covered the appropriate information for their topic. I absolutely refuse to give a group grade when some individuals in the group have done nothing to earn it. I'm really confused about this.

"The committee suggested that one reason I had trouble was that my groups of seven were just too big. They said I should try groups of four and give each person in the group a specific task. Maybe I'll try that. I don't want to go back to my traditional way of teaching but I need some help."

Dennis Brouwer, the assistant principal of the middle school, smiled as he walked to the front of the room to close the meeting. "Gary, you said you don't know whether an old dog can learn new tricks, but listening to you gave me courage to try some new things in my own classes. The rest of you ought to know that Karla gave me a copy of Content Area Reading (Readence, Bean, and Baldwin 1992), and Gary and I have been going through it, seeing how we can adapt some of those instructional strategies to our own teaching. There are a number of other books on the professional shelf in the library. Thanks again, Gary. I'm sure there'll be people who would like to ask you some questions."

Whether one teaches with an integral approach or with a disciplinary approach, it is essential that instruction be as rich and involving as possible. Teachers don't have to be extraordinarily creative to teach this way. It is only essential that they are willing to search out new ways of thinking about teaching and learning and are willing to use them.

Van Dyk (1986-87) has described a Christian model of teaching as involving guiding, unfolding, and enabling. Van Brummelen (1988) has added structuring as a fourth dimension. In this book, we have described a curriculum model involving play, problem-posing, and purposeful responding. Models such as these are helpful to teachers in encouraging them to think through the components and steps of teaching. Teachers who recognize their task as helping students learn commitment and responsibility will arrange instruction so that they may interact with students in ways that are pedagogically effective. We often talk about the importance of teachers being exemplary models for students in ways that they live and think. The classroom should be an environment in which a contagious influence for learning flows back and forth between the teacher and student and among the students when they are in groups (Van Manen 1991). If all of that is to happen, instruction in the traditional as well as the nontraditional classroom must be carefully planned to allow for this influence.

There are teachers who are convinced that this kind of influence and modeling can take place when they are lecturing and, in addition, that students learn more facts when they listen to lectures than with other means of instruction. They realize that teaching is more than giving facts but to the extent that facts are important, they believe they can best be learned when presented in a lecture. Some of these teachers also insist that lecture notes dictated to the students so they can be carefully copied and organized will be an important aid to learning. However, research does not support these notions. In a review of studies comparing the effectiveness of note dictation with other teaching methods in preparing students to pass tests of factual information, McKeachie (1986) concluded the following:

1. Lectures are as effective, but not more so than other teaching methods, for presenting factual information.
2. On measures of retention of information after the end of the course, transfer of knowledge to new situations, or measures of problem-solving, thinking, attitude change, or motivation for further learning, discussion methods are more productive than lectures.

Most of these studies were conducted with college students. If lectures are so ineffective with college students, how much less effective are they in the learning of high school students?

If learning is to take on meaning, students need an opportunity to rehearse orally what they have heard and must do so immediately after hearing it. This may be done in the form of buzz groups and group problem-solving. Cooperative group interaction with the use of case studies has been found to be extremely effective in promoting meaningful learning. In fact, the class interactions that have been found the most helpful in promoting learning make a great deal of use of students' language.

We know that the effect language has on the person using it is extremely powerful. When I am able to talk about an idea or concept and am able to explain it to someone else, my own understanding of that concept is deepened. That is why it is so important that parents and students discuss at home what the student is learning in school. Teachers who understand
the power of language will want to arrange learning activities that encourage a great deal of appropriate use of spoken and
written language on the part of students.

We know that learning is more effective when students are immersed in complex and real experiences. Teachers who
understand that will want to move away from one-way instruction of teacher to student or film to student and move toward
more complex instruction that involves group discovery, individual search and reflection, or role-playing. They will want to
involve students in planning for ways of learning so that it will be meaningful for them.

Involving students in learning does not mean having classrooms in which anything goes so long as the students are
socially active. It means searching for group learning activities, reading strategies, and other cooperative arrangements that
actively engage students in taking responsibility for their own learning and helping each other learn. These are serious,
important ways of arranging instruction. Learning how to teach this way will require in-service training and an atmosphere
in which teachers are encouraged to attempt new ways of teaching and to share in each others successes and failures in these
attempts.

Students arrive at flashes of understanding, moments of "aha, I get it" when they see how things are connected, at
different times from each other. There is a joy in coming to understand something for the first time. When students are
actively involved in their own learning the moment of understanding carries with it a particular joy. But that joy in learning
is often preceded by hard work, uncertainty, risk-taking, and anxiety. There are many different ways teachers can help them
along the way, but what they need more than anything else during this period is a teacher who can remember having been
there, one who can remember the anxiety and uncertainty and therefore who is willing to provide encouragement during the
frustrating moments.

Unfortunately, there are common teaching practices that close the learning space and that create an atmosphere of
suspicion rather than of hospitality. But there is also a great variety of ways teachers can "create a space for learning in
which obedience to truth is practiced" (Palmer 1983, 69). It is the task of the Christian teacher to search out those ways and
to teach accordingly.

**Teacher 1:** I think the hardest part about teaching is to plan in ways that help the students become knowledgeable enough
about a topic so that they will be eager to discover how to learn more about it.

**Teacher 2:** I know what you mean. A teacher has to be well prepared with knowledge about the topic and must plan
carefully for instructing in ways that will truly involve students in learning. Yet, after preparing so thoroughly the
teacher must be willing to step aside as soon as the students are able and willing to learn more on their own, even
when that means some lesson plans will change or be omitted.

**Questions for Discussion**

1. What is happening in your school that creates an environment productive or counterproductive to creating a space for
learning in which obedience to truth is practiced?

2. When teachers are using cooperative group learning strategies should there be times when everyone in the group gets
the same grade for the work that has been done? Is that fair? How can the learning situation be arranged so that it will
be fair?

3. When you are attempting cooperative strategies and one or two students try to allow other students in the group to do
their work for them, how might that be handled?

4. What would be the greatest impediments to planning and teaching with integral units in your school? How might
those difficulties be overcome?

5. With a partner, choose a unit topic with which both of you are somewhat familiar. Brainstorm the implications of
this chapter for teaching the topic. If implemented in this way would responsive discipleship be fostered? Why or why
not?
Recommended Readings

   A further elaboration of the integral curriculum approach in a Christian school setting.
   Ways of planning interactive instructional strategies appropriate for subject area classes in middle and high schools.