

Adapting Instruction in Content Classrooms to Meet Individual Student Needs

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One of the true *classics* in higher education is the college professor standing in front of a preservice education class extolling the virtues of individualization within the classroom; unfortunately, this extollment is usually delivered only through lecture(s) supplemented by occasional classroom discussion. The end result is one more example of the *Do as I say, not as I do!* instructional strategy.

Yet, the college professor has effectively modeled for the preservice teacher the common method of instruction found in many public schools—the whole group, lecture format wherein the entire class is taught as if it were only one person. It is no wonder that such an instructional format dominates public school classrooms.

In whole group instruction the subject, rather than the individual student, is the focus. However, effective classroom teaching deals with individuals who differ in myriad ways. In addition to differences in the areas of academic achievement and ability, students in a given classroom will differ in terms of experiential background, language skills, interests, physical development, emotional development, motivation, self-concept, rate of learning, cognitive style, and even in chronological age. Considering all these variables, some form of individualization seems essential in order to meet the learning needs of students.

On the other hand, total individualization, in which the individual student receives instruction that is specifically tailored to that student, appears to be an impossible task. Additionally, totally individualized instruction is probably not desirable either, as such instruction neglects student interaction and meaningful student exchange.

Since both whole group instruction and total individualization seem to be inappropriate instructional formats, there would appear to be some sort of middle ground between these two extremes. Four sets of suggestions for adapting instruction in content classrooms to meet individual student needs will be presented. These include: (1) single text alternatives, (2) individualizing reading assignments, (3) the half-open classroom, and (4) using small groups. These suggestions are provided to help classroom teachers reach the goal of discovering for themselves the most effective, yet manageable, instructional procedures and classroom organization.

Single Text Alternatives

One of the major deterrents to seeking the most appropriate classroom organization to accommodate individual differences is the single textbook approach. This approach goes hand in hand with whole group instruction, i.e., everyone is required to read the same assignment at the same time. While there can be no argument that textbooks are found in most content classrooms, strict adherence to the single text with all students is neither appropriate nor desirable.

To eliminate the constraints placed upon the teacher by a single textbook approach and to stimulate a classroom organization conducive to individual student needs, alternatives to the single text should be considered. Single textbook alternatives include: (1) adopting multilevel texts, (2) adapting the textbook, (3) using text supplements, and (4) using instructional supplements.

1. Adopting multilevel texts

If funding is possible, the use of multilevel texts is appropriate. Multilevel texts are textbooks covering the same subject matter but written at varying levels of difficulty. In this way the teacher can attempt to match students' reading levels with texts of appropriate difficulty. This match can be accomplished through the use of informal classroom evaluation instruments such as the cloze test or the content reading inventory.

2. Adapting the textbook

If funding is not possible or if multilevel textbooks are not available, other alternatives must be considered. If the textbook is too difficult for many students, using the book as a resource or reference tool to supplement instruction is appropriate. Additionally, portions of the text that may prove particularly difficult could be rewritten. Students, individually or in small groups, also may participate in this rewriting process. Once rewritten, whether by teacher or students, these revisions will be useful for future students who might experience difficulty with the primary text.

3. Using text supplements

Supplements to the original text can be divided into other text sources and non-text sources. Other text sources include trade books, magazines, journals, and newspapers. Additionally, multiple texts by different publishers, but covering the same material, should be considered. Non-textbook sources include the use of outside experts to serve as resource people; films and filmstrips; audio and video tapes; study prints (i.e., professionally prepared photographs with suggestions for the teacher); manipulative material; and laboratory equipment. The Internet provides almost unlimited options for supplementing textbooks and individualizing instruction (McNabb, 2006).

4. Using instructional supplements

Various aids to augment the textbook may be considered. First of all, listening in lieu of reading should be utilized to aid students' understanding of difficult text material. Games and puzzles or activity folders could also be appropriate instructional supplements. Demonstrations and simulations or field trips may be more concrete means to deal with a course topic. Supervised study scheduled during class time can be an appropriate technique to reinforce text concepts. Finally, paraprofessionals or aides can be invaluable aids in the classroom to assist individual students who are experiencing difficulty with the text.

Individualizing Reading Assignments

To deal with the range of reading ability that teachers typically encounter in their classrooms and the inherent difficulty of content textbooks proposed individualizing reading assignments helps students successfully learn from their textbooks. Individualizing reading assignments does not mean a different text for each student; nor does it mean an individual preparation for each one in the class. Rather, it means providing enough assistance to insure that each student will succeed in their reading and learning. Teachers should consider varying: (1) the difficulty of questions, (2) the amount of guidance in questioning, and (3) assignment length.

1. Question difficulty

Not all students possess the sophistication necessary to adequately cope with higher level comprehension questions; some might well profit from questions designed to identify specific facts or generalize relationships among particular ideas. One strategy is to match question difficulty to students' reading abilities is suggested. In this way each student could experience success at some level of comprehension, and a postreading discussion could be used to insure that the essential information gained by each student is shared by all. They caution teachers, however, that it is not desirable to permanently label some students as low level comprehenders as it may be detrimental to their learning. Varying the level of sophistication of questions should be regarded as only one means of adjusting the task to students' abilities.

2. Differential guidance

Another way to differentiate reading assignments is to vary the amount of guidance built into the questions asked. Simply telling students to read and answer written questions that follow may not provide sufficient structure for many students who have difficulty in locating and verifying pertinent information. It is suggested that it is easier to react to alternatives than to generate them. Therefore, questions should be structured with several possible answers, with the student's task being to verify the appropriate alternatives. Additionally, these alternatives can be varied, with some directly stated in the text while others might have to be inferred. Finally, for some readers it might also be useful to provide locational aids in the form of a page number and/or particular paragraph. For example, the placement of the notation (236:2) at the conclusion of a written question would indicate that the answer to that particular question could be found in the second paragraph on page 236. Thus, teachers can help those students who might not otherwise be successful become more certain of locating and verifying essential text information by varying the amount of guidance provided in their questions in one or more of these suggested ways.

3. Assignment length

Since some students seem to have difficulty with lengthy reading assignments, it may be necessary to reduce assignments to more manageable proportions to give students an opportunity for success. Varying the assignment length can be accomplished by varying the number of understandings to be gained from the reading. For instance, some students might be directed to only the most important parts of the material while

others might be expected to get only a few of the most important ideas. Again, a postreading discussion could be used to share information.

Another way to handle a lengthy assignment is to vary the amount of time provided to complete it. In this way the assignment can remain the same for all, but the time provided to complete it could vary.

4. Time options

Adjusting time options consists of offering students alternatives in sequence and deadline. First, it is suggested that students be allowed to complete the prescribed tasks in any order they might choose. Next, teachers could extend this sequencing responsibility from a single class period to longer periods of time. In other words, assignments normally made on a daily basis would now be made to cover a period of days. Finally, when independent sequencing becomes manageable for both the teacher and the students, the teacher might begin to extend or reduce deadlines on an individual basis. The advantage of adjusting time options is that it allows teachers to move around the classroom, monitor students' progress, and work individually with those students who are experiencing difficulty.

5. Task options

In combination with time options, it is suggested that the tasks students are expected to complete be divided into required and optional categories. For example, if four learning tasks have been prescribed, students might be directed to complete only three of the four or the first two and either of the final two. Thus, students can not only decide what order to do their assignments but may also choose which ones to do. In this way students can increase their self-direction and initiative.

6. Movement options

Rather than fitting the learning tasks to a permanent physical organization, it is suggested that the arrangement of students and furniture follow the classroom tasks (i.e., form follows function). For instance, if listening is an option, then a corner of the room could be set aside for that task. Similarly, another corner of the room could be used as a library for free reading if that is an option. When both the teacher and students become comfortable with the movement that may be required by individualizing the time and task factors, movement options can be expanded, school rules permitting, to choices by students beyond the classroom. The library, resource centers, and cafeteria might be used to complete particular tasks if the teacher believes that movement is essential for learning. With increased movement options comes increased student responsibility for their own learning.

Using Small Groups

In addition to the suggestions described above, the use of small groups utilizing peer tutoring procedures may be especially valuable strategies to aid teachers in individualizing in their classrooms.

Most students tend to learn best when actively involved in the learning process. Small group strategies insure active participation on the part of students. Additionally, such strategies enhance students' social development. Small groups focus instruction on the learner, not on the subject. Small groups also permit everyone an opportunity to participate in the learning process; commitment to learning is enhanced because group members have a shared responsibility as they cooperatively learn the task under consideration.

Finally, small groups may be used for problem solving, case study, discussing or exploring a situation, answering a specific question, developing ideas for further study, and project preparation.

Small group strategies may be especially useful in helping individuals deal with reading and understanding their textbooks. What follows, then, is a description of two structured small group strategies, Intermix and Jigsaw, that can facilitate students' understanding of content material (See <http://www.jigsaw.org/> for an overview and implementation strategies for Jigsaw Classroom.)

1. Intermix

Intermix is a small group learning strategy that stresses cooperative learning. It is based upon the following assumptions: (1) students learn best when they are responsible for their own learning and the learning of others (students as teachers) and (2) interdependence in learning is conducive to content acquisition. The role of the teacher in this strategy is to provide learning tasks for the small groups and to structure the groups to facilitate their learning of the content.

Intermix consists of the following procedural steps:

a. Preparation. Students are cautioned that everyone is in the class to learn. They are told to assimilate as much new information as possible about the learning task to be undertaken and to be helpful to each other in their learning. Students are further told that a signal such as turning the lights off and on will be used to indicate to students the need to pay attention to the teacher for new directions in the group learning process.

b. Assignment. Each student is placed in an appropriate four-member group and is assigned an individual task to learn. In a class of twenty-four students, six (6) groups would result. With twenty-five students, there would be six (6) groups consisting of four (4) students each and one group of five (5) students. The fifth student would be paired with one individual in the group. These two students would be assigned to study the same task and would work as a team in teaching that information to the other members in the group. Classes with twenty-six students would have two (2) five-member groups; classes with twenty-seven students would have three (3) five-member groups; and classes with twenty-eight students would have seven (7) four-member groups. This same assignment pattern could be followed regardless of class size.

c. *Study*. Students are assigned to study a particular piece of information for a designated period of time. During this silent study time, students may underline key ideas, make marginal notes on the material, or outline the information in a notebook. These aids may be used when the students then share their information with their peers.

d. *Sharing*. Students are directed to teach one member of their group the assigned task. Time limitations should be imposed on each sharing session depending on students' abilities and the difficulty of the material. In the next session partners switch roles of learner and teacher. In this way, two assigned tasks are taught and learned. Next, the partners rejoin their four-member group to gain additional learning. This time the student who functioned as learner acts as teacher of the newly learned material for the other group members. The original teacher acts as *back-up* for the new teacher. In this way the information will be adequately taught to all group members. This sequence is repeated four times, until each student had been taught and has learned the four pieces of the assignment.

e. *Follow-up*. The whole group is reassembled for further discussion and clarification of the total assignment. The teacher aids students in organizing the total learning experience.

It is suggested here that the task be one of four parts of a text reading assignment. Purpose-setting questions for reading are provided each student in their learning task. What they then teach each other are the major concepts selected by the teacher. Thus, each student has one of four learning/teaching tasks in the total assignment.

2. Jigsaw

Jigsaw (Aronson, 2007; Tierney & Readence 2005) is another cooperative learning strategy using small groups. As in Intermix, students in Jigsaw are asked to learn an assigned task and teach it to other students. Jigsaw consists of the following steps:

a. *Teacher preparation*. Prepare assignments for individual students and purpose-setting questions for each assignment. A two-question quiz is also constructed for each assignment. Quiz questions should be challenging to students, as they will have time to process new information in depth. Four sets of assignments, purpose-setting questions, and quiz questions should be prepared.

b. *Introduction*. The following is explained to students: "You are going to work in learning teams to study reading material in your text. Each of you will have a special topic. You will read the material and discuss it with members of other teams. Then you will teach your own teammates about your topic. Finally, everyone will be quizzed on all topics. Your team's scores will be totaled and compared to other teams' scores."

c. *Assignment*. Students are grouped into teams representing all achievement levels. Assignments and purpose-setting questions are given to individuals. Students read their assignments to answer their questions. As in intermix, students may be given the assignment to learn overnight. Additional students are assigned partners (see Intermix

discussion) to cooperatively learn and teach their assignment when numerically uneven groups exist.

d. Sharing. The following directions are given: “You will have a chance to discuss your topics with other students who have the same topic. In these groups you will have a chance to decide what are the most important ideas about your topic. Take notes on important ideas. You will then go back to your team to report your findings.”

Students become engaged in cooperatively discussing their topics. Time allocated to this activity will depend on student abilities and difficulty of the assignment.

e. Team reports and quiz. Students go back to their teams to report what they have learned. A class discussion may follow team reports if the teacher feels this is necessary. The quiz follows the reporting and discussion. Students are given one point credit for each correct item and double credit for questions on their own topic. In this way ten points are possible on the quiz. Team members add their point totals together to get their team score.

Summary

These suggestions for adapting instruction in content classrooms are recommended to help teachers begin to move from a whole group lecture method to one that accommodates individual learners in their efforts to read and learn from their textbooks. Much of this discussion has focused on different ways of organizing and managing instruction in content classrooms; however, it must be emphasized that efforts to make these suggestions successful rely on both an awareness that teachers need to consider such alternatives and a willingness to attempt them. Without such a mind set, teachers’ efforts to individualize may be in vain.

References

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