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Introduction
Currently, classroom instruction often employs a “shoot to the middle” approach in which the teacher “aims” the lesson at a level that seems accessible to the majority of students. The teacher provides a single text, single lecture, single activity, single homework assignment, single pace, and single assessment with the hope that most learners will grasp the essentials before it is time to move on. One-size-fits-all instruction dominates the educational landscape because class sizes are large; classroom spaces are small; instructional time is fragmented; one text is adopted per subject and grade; supplementary materials are scarce; instructional guides promote lockstep adherence to recipe-like teaching; oversubscription to test-based assessment that measures all learners (and teachers) with a single, rigid yardstick; and teachers feel overwhelmed with demands on their energy and time. Perhaps most significantly, our images of classrooms — derived from both personal and professional experience — are one-size-fits-all images. These powerful realities perpetuate uniformity in classrooms.

At the same time, students come to school with an expanding array of readiness levels, interests, and learning profiles. In a given classroom, it is not unusual to find children with profound learning disabilities and others who exceed grade-level expectations by three or four years. Within that same class, student interests may range from surviving on the street to designing and launching rockets. At the same time, issues of gender, culture, learning style, and intelligence strength shape the varied ways in which students approach and respond to learning. As compelling as it is to teach as though all 3rd graders, for example, are relatively alike as learners, they are not. Evidence is that lockstep, uniform instruction does not result in a full range of genuinely challenged and engaged learners who have clear understandings of essential ideas and the capacity to apply key skills. Our best professional understanding of how students learn calls on us to modify, or differentiate, instruction in response to their varied readiness levels, interests, and learning profiles.

There is a second reason to work toward differentiated classrooms in our schools. Schools are gateways to the future for children who enter them. Equality of opportunity is the watermark of our society. We have ample evidence that tracking struggling learners impairs their chances for high-quality learning experiences. We also have ample evidence that advanced learners are poorly served in classrooms where the pace, curriculum, and performance standards are several grade-levels behind their capabilities. We reject tracking as an equitable means of addressing student differences. One-size-fits-all classrooms inevitably fall short of addressing the
readiness needs of struggling and advanced learners. Thus, both tracking and single-size instruction fail us. Appropriately differentiated classrooms are a promising alternative to our two standard practices: treating all students as basically alike in the regular classrooms, or pulling some students out of the classroom to address their differing learning needs.

A third impetus to differentiate instruction in mixed-ability classrooms is closely related to the problems with tracking and single-size instruction. It is clear to us that students with learning difficulties and students who are very advanced have “nonstandard” learning needs, and that differentiated learning opportunities are advantageous to them. Perhaps more subtle is the fact that virtually all students in the learning spectrum benefit from flexible classrooms in which interests, learning profiles, and readiness needs help sculpt instruction. Some students are advanced in one segment of a subject, while they struggle a bit in another facet of the same subject. Some students are analytical learners, while others are creative learners, and still others are practical learners. Some students are active learners, and some reflective. Some students flourish in a more competitive setting, others in a more collegial one. Some students learn best in a whole-to-part approach, others in a part-to-whole mode. Some students best learn a science concept by completing an interesting lab, others by designing one. Flexible, responsive, differentiated classrooms enable teachers to diagnose varied student learning needs and prescribe varied avenues to sound learning for all students in the class.

A fourth argument for differentiated instruction is that it makes sense for teachers. It does involve developing and honing a complex set of skills. It does feel risky. It does take time to develop the skills. In the end, however, differentiated instruction builds thoughtful, highly skilled professionals who typically feel more in touch with their students as individuals, more aware of the essentials of their subject(s), and more creative as educational practitioners.

In the videotapes that accompany this guide, you will see teachers who have set out on the journey toward differentiation. No one of them would say they have completed the journey. They do invite you to think with them about ways in which educators can fashion classrooms and learning experiences to match learner needs — with the goal of providing maximum challenge and maximum growth in knowledge, understanding, and skill for each individual who spends a significant portion of his young life in those classrooms.
This program is based on the following assumptions:

1. **Differentiating instruction is not a new idea.**

   Teachers have always worried that some students have serious gaps in their learning and some others spend too much time rehashing what they already know. Visions of student anxiety and student boredom accompany teachers home on most nights. Over the years, teachers have developed many approaches to addressing student differences in classrooms that seem always to contain too many students and too few resources: separate reading or math groups, individualized instruction, individual education plans, compacting, and peer tutoring are just a few. Our quest to refine our capacity to address student differences will likely continue as long as there are schools. The approach to differentiating instruction reflected in this program is a step in that pilgrimage.

2. **“One-size-fits-all” instruction is not a good fit for many learners in an academically diverse classroom.**

   In most classrooms, students vary widely in readiness, from those who struggle greatly with all or part of a subject to those whose understandings and skills greatly exceed grade-level expectations. Further, students vary in what interests them and in their learning profiles (e.g., learning style, learning patterns influenced by culture and gender, and intelligence preference). Matching learning opportunities to readiness level helps ensure that students master key skills and understandings rather than glossing over them, and that students continue to progress in skills and understandings rather than repeating them. Matching learning opportunities to student interests increases the likelihood that a student sees school as relevant, and that a student finds and develops passions for learning and personal talent areas. Matching learning opportunities to learning profiles maximizes efficiency and effectiveness of learning for individuals.

3. **Teachers in appropriately differentiated classrooms continually study their students.**

   Both formally and informally, teachers seek opportunities to understand various students’ “points of entry” into topics and skills, what individual students like both in and out of school, and the sorts of learning environments and conditions in which various students succeed. Assessment is no longer something that comes at the end of
a unit to see who learned what. In a differentiated classroom, assessment is a continual reading of vital signs related to readiness levels, interests, and learning profiles of each student for the purpose of better understanding today how to modify tomorrow’s instruction.

4. **Good teaching is predicated upon a teacher’s clarity about what a learner should know, understand, and be able to do as a result of a given learning experience and set of learning experiences.**

The best teaching occurs when teachers are clear about the essential information, understandings, and skills that a student must develop during each lesson and unit. That information, those understandings, and those skills are the ones that build the framework of a subject. Brain research (not to mention common sense and experience) tells us that learners cannot remember everything about a topic over an extended period of time. Therefore, teachers must identify essential concepts, essential principles, and essential skills — carefully building lessons that cause learners to grapple with those essentials until they “own” them.

5. **In an appropriately differentiated classroom, all learners focus much of their time and attention on the key concepts, principles, and skills identified by the teacher as essential to growth and development in the subject — but at varying degrees of abstractness, complexity, open-endedness, problem clarity, and structure.**

All learners should work with the essential ideas and skills that build toward understanding the subject and proficiency in the subject. Some learners need to work with ideas and skills at a concrete level — using manipulatives, diagrams, or other devices that allow them to experience the idea in a clear, specified, guided, and tangible way. Other learners are ready to work with the ideas and skills at a greater level of abstractness, in fuzzier problems, and with minimal structure and guidance. It is often not the ideas and skills that will vary with readiness in a differentiated classroom, but rather the degree of difficulty or complexity in the way students interact with the ideas and skills.

6. **In an appropriately differentiated classroom, all learners should work with “respectful tasks.”**

In working with essential understandings and skills of a subject, all students should be offered tasks that encourage them to think at high levels of thinking. All students should have consistent opportunities
to be active learners. All students should consistently have equally interesting and engaging tasks to do. All students should work with a wide variety of peers over time. All students should sometimes be teachers, and all should continually be involved with learning that is new to them. All students should be consistently pushed a bit beyond their individual comfort zones in knowledge, insight, thinking, skills, production, and affective awareness — conditions that demonstrate respect for students as individuals and as learners. These conditions are essential in appropriately differentiated classrooms.

7. **An appropriately differentiated classroom offers different routes to content, activities, and products in response to differing learner needs.**

A teacher in a differentiated classroom constructs different avenues to

- content — what students learn;
- activities — opportunities through which students process, or make sense of, understandings and skills; and
- products — how students demonstrate and extend what they have learned.

Sometimes options for learning tasks are based on teacher assessment of student readiness, and are carefully targeted to specific students. At other times, student interests lie at the heart of the options. Teachers often provide students with learning profile choices such as working with a group or alone, or expressing learning through visual or oral means. Sometimes the class works as a whole with a single task or discussion.

8. **Flexible grouping of students enables all learners to work in a wide variety of configurations and with the full range of peers, while targeting specific learning needs.**

In a flexibly grouped classroom, students sometimes work with peers of similar readiness so that the teacher can target the complexity of the task to student needs or target tasks by similar interest and learning profile. At other times, students work in mixed readiness or interest groups with tasks that enable all students to play essential roles in the group’s success. Sometimes the whole class works as a unit. At other times, students work independently. Sometimes the teacher selects student groups and working conditions, at other times, students make these choices. Within a few days, a student in such a class may have worked in four or five different group arrangements,
and with many or most of the students in the class. Flexible grouping enables teachers to “audition” students in varied settings and roles, and ensures that we have not moved from tracking outside the regular classroom to tracking inside the regular classroom.

9. Learning to effectively differentiate instruction in academically diverse classrooms is complex and requires support for teachers over extended periods of time.

Some teachers already orchestrate vigorously differentiated classrooms. For most of us, however, developing and refining the skills of differentiation is complex, uncertain, and carries an initial price tag of discomfort and added effort. Change of this nature takes time and requires consistent support. Teachers may need assistance in (a) developing a sound rationale for differentiation, (b) identifying and understanding the needs of diverse learners, (c) preparing students and parents for differentiated classes, (d) managing a differentiated classroom, (e) identifying key understandings and skills in their subjects, (f) applying principles of differentiation, (g) using instructional and management strategies that facilitate differentiation, and (h) steps in beginning to implement differentiation. Certainly teachers need training in these areas. They also need assurance from the administration that they will be valued more for attempting positive change (even when early attempts are imperfect) than for preserving the status quo. Teachers need time for planning, support for in-classroom coaching, and time to visit and work with other teachers who are pursuing differentiated instruction. Policymakers also need to help teachers reconcile the call for responsive and flexible classrooms with practices that discourage responsiveness and flexibility — for example, rigid report cards, fragmented time blocks, and overemphasis on standardized testing. Like students, teachers are a diverse group. They, too, need a differentiated approach to learning and growing along with supportive, responsive environments. The positive possibilities that could stem from growing numbers of differentiated classrooms are immense. Like most worthwhile endeavors, this one is challenging and should be undertaken with awareness of both the price tags and the payoffs.
Differentiation is not a license to eliminate specialists, but rather an opportunity for specialists and generalists to collaborate in ways that focus their combined skills on improving instruction in the regular classroom.

It would be difficult, if not impossible, for a regular classroom teacher to develop all of the insights that have come to a specialist in learning disabilities through years of training and experience, to develop and skillfully employ the diagnostic and prescriptive strategies used by a remediation specialist, and simultaneously to quickly achieve the advanced content knowledge, comfort with heuristic techniques, and sense of expert-level production requirements used by a specialist in gifted education. To ask a general classroom teacher to master the skills of managing a differentiated classroom is no small request — add to that the expectation that the generalist also become a specialist in several other well-established facets of educational practice is asking too much. Differentiation will work best when time and support are provided for a team of educators — special educators, educators of the gifted, remediation experts, librarians, guidance counselors, and others — to collaborate in reconfiguring classrooms and redesigning curriculums in ways that draw on the expertise of each participant in the planning process. In a best case instance, a remediation specialist, for example, enters the regular classroom not just to work with four struggling learners but to be a part of looking at ways in which the content and operation of the classroom can become more responsive to all learners.

The videotapes and Facilitator’s Guide are designed for preK–12 teachers, administrators, curriculum and instruction specialists, staff developers, and preservice teachers who want to improve how we respond to the diverse learning needs of students in our schools. Parents, school board members, and business and community leaders may also find the series helpful in enhancing their understanding of contemporary education issues and practices. The videotapes take viewers into eight classrooms to explore the concepts of differentiated instruction and to see instructional and management techniques that teachers use in creating differentiated classrooms.

Workshops in the Facilitator’s Guide provide opportunities for additional exploration, application, and sharing related to some of the key principles and practices of effective differentiation that are introduced in the
The videotapes and guide can assist educators in determining the current state of differentiation in a classroom, school, or district, and in formulating a plan for extending understandings about differentiation and translating those understandings into classroom practice.

Many schools are working hard to establish communities of learning in which all students have their learning needs addressed primarily in the context of the regular classroom. If these attempts are realized, it will be because educators have developed practices and procedures responsive to the full complement of students in their classrooms. Even in schools where some special classes for struggling or advanced learners are retained, most students spend most of their school lives in regular, mixed-ability classrooms. Student needs in those classrooms are becoming more disparate, not less so. In mixed-ability classrooms, teaching all learners the same things; using the same materials, activities, homework assignments, and products; working at a single pace; and assessing instructional effectiveness with a single assessment tool is almost guaranteed to poorly serve many students. Differentiation of instruction in mixed-ability classrooms has three key goals. One is focusing instruction on essential knowledge, understandings, and skills so that all students grapple with powerful learning. A second goal is ensuring that students begin learning where they are and continually escalate to increasingly more complex levels of insight and application. A third goal of differentiation is continually to provide students with learning experiences that (a) focus on their own interests, readiness levels, and learning profiles; and (b) help them learn to appreciate and work collegially with students whose learning needs differ from their own. The videotapes and Facilitator’s Guide in this series provide visual examples of how it looks when teachers, schools, and districts begin a professional journey toward differentiation, and also presents opportunities for analysis of the principles and practices that support differentiated classrooms.

By the end of this series, participants will be able to

- Identify key features of an effectively differentiated classroom.

- Explain some of the key concepts and principles of differentiated instruction.

- Analyze differentiated learning tasks.
• Expand their repertoire of strategies for assessing student readiness, interest, and learning profile.

• Translate one or more key principles of differentiation into their own classrooms.

• Use one or more instructional and management strategies that support differentiated instruction.

• Identify ways in which they currently employ strategies and principles of differentiation as well as areas they might target for additional growth in differentiating instruction.

Whether you decide to simply show the videotapes to a group or to conduct the workshops outlined in the next section, your preparation for the sessions and openness to discussion will enable you to help your group benefit from this program. Remember, you do not have to be an expert on differentiating instruction. Viewing the videotapes and reading this manual and suggested readings before the workshops, however, will give you important information and examples that will be helpful in your workshops. Your background knowledge and outside reading will provide you with a strong base for discussion. As a facilitator, you have several major responsibilities.

• **Read and View the Materials**
  — Read the *Facilitator’s Guide* and other reference materials.
  — View the videotapes. As you preview the tapes, you may want to record the tape counter numbers for the beginning of each section or example to use as a reference during the workshops.

• **Prepare the Program Activities**
  — Select the workshop format that is most appropriate for your audience.
  — Select the workshop activities you will use and modify them, if necessary, to meet the needs of your audience.
  — Plan agendas for your workshops, including the workshop objectives and specific times, including time for breaks. (Suggested agendas and objectives are included in this guide.) Arrange for refreshments.
• **Check the Room and the Seating**
  — Reserve a room large enough to arrange seats in a way that is conducive to viewing the video and group discussion.
  — Arrange for an adequate number of comfortable seats.

• **Arrange for Equipment**
  — Arrange for the use of a VCR and monitor. (A 23- or 25-inch monitor will suffice for up to 25 participants.) Check the video equipment to ensure that it is in good working condition. Check the electrical outlets in the room to make sure they are in working order. Be sure you have any necessary extension cords or adapters.
  — Arrange for the use of an overhead projector, a screen, and a writing surface (e.g., blank transparencies, flip chart, or chalkboard). Make sure you have the right kind of pens or markers for the surface(s) you choose.

• **Prepare Materials**
  — Duplicate the handouts and readings from this guide that you would like to distribute to participants. If you wish to distribute other materials, make sure you comply with copyright policies for the materials.
  — Make transparencies from the overhead masters and, if desired, duplicate them as additional handouts.
  — Gather chart paper, masking tape for posting chart paper on the walls, and several felt-tip markers.

• **Announce the Workshops**
  — Publish a flyer that clearly specifies the dates, times, and location for the workshops.
  — Contact all individuals who will be involved in the workshops. If appropriate to your situation, invite parents, community leaders, and businesspeople.
Five workshop formats are offered to give you flexibility in using this videotape series. Workshops 1 and 2 are designed for use with Tape 1, *Creating Multiple Paths for Learning*. Workshops 3 and 4 are designed for use with Tape 2, *Instructional and Management Strategies*. Workshop 5 uses both Tape 1 and Tape 2.

Workshops 1 and 3 are 75-minute sessions that can be used for faculty meetings, parent-teacher forums, or school board presentations. Workshops 2 and 4 are longer sessions of 6–6 1/2 hours each and are designed to provide two days of staff development on differentiating instruction. Workshop 5 is a 6-hour workshop that incorporates Tapes 1 and 2 and combines activities selected from Workshops 1–4. Workshop 5 is a less interactive session than Workshops 2 and 4, but it provides a way of using both videotapes in a one-day staff development session.

This session provides an overview of differentiated instruction. The format suggested here allows for connecting participants’ own teaching experiences with Tape 1, which looks inside some classrooms where teachers plan and carry out differentiation, and a brief discussion of participant responses to the video program.

We suggest the following agenda for this 75-minute session.

**Agenda and Time Guide: Workshop 1**

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<td><em>Creating Multiple Paths for Learning</em></td>
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<tr>
<td>Reactions to the Video</td>
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<td>Needs Assessment (Optional)</td>
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<td>Approximate Workshop Time</td>
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For this session, you will need copies of Handouts 1–3 for each participant. You will also need a transparency of Overhead 1. You will find the masters for these in the “Handouts and Overheads” section of this guide. Materials needed for this workshop include chart paper, masking tape, and felt-tip markers.
Introduction (15 minutes)

1. Introduce yourself to the participants and explain the purpose of the workshop:

   ◆ The purpose of today’s session is to give you an orientation to the topic of differentiating instruction in mixed-ability classrooms by showing examples of differentiated lessons and hearing from teachers who differentiate, or modify, instruction in response to student diversity.

2. Show Overhead 1 and suggest that today’s session should be helpful in thinking about how to structure learning experiences so we don’t make the mistake of ignoring very real and important differences in students’ readiness levels, interests, and learning profiles.

3. Distribute Handout 1, “Thinking About Instruction Based on Student Needs.” Give participants 4–5 minutes to respond to the questions individually. Tell participants this handout is for their own use and will not be collected.

4. Ask participants to share their responses to the questions on the handout with the whole group. The purpose of the first column is to help establish the range and type of learning needs in participants’ classrooms. You might want to abstract categories of student needs and list them on chart paper as participants share their examples (e.g., student with physical handicaps, advanced learner, student who wiggles all the time, volatile student, student from a difficult home setting, student who doesn’t want to write anything). The purpose of the second column on the handout is to encourage participants to formulate ideas about what a differentiated classroom might look like. You might want to list on the chart paper specific strategies for meeting student needs as participants share their ideas (e.g., independent study, peer tutoring, assigning fewer math problems, standing near a student to prompt good behavior).

View Tape 1 — Creating Multiple Paths for Learning (45 minutes)

1. Mention to participants that the videotape focuses on several lessons to show how various approaches to differentiation can be used, such as differentiating content, differentiating activities, and differentiating products.

2. Show the entire videotape.
Reactions to the Video (15 minutes)

1. Distribute Handout 2, “Thinking About Tape 1,” and ask participants to form small discussion groups (about five people per group). Assign each group a different question from Handout 2. Ask the groups to select a spokesperson who will share responses from the small group with the large group. (Allow 5–6 minutes for small-group discussion.)

2. Reconvene the large group and ask the spokespersons from the small groups to share answers for their group’s question. After each small group has shared its responses, ask for additional comments or observations from the large group. Participants may want to jot down key ideas on their own handouts. (Allow 8–10 minutes.)

Possible answers for Handout 2:

**Question 1. Based on what you saw in the videotape, what would you say differentiated instruction involves?**

- Pre-assessment of student readiness and interest.
- Instruction based on student readiness and interest.
- Task assignments not only made by teachers but sometimes by students.
- Active and student-centered classrooms.
- Interesting tasks for all students.
- Teacher acting as facilitator or coach.
- Goal setting, often by students.
- Students making some choices about work, even when they are assigned to groups.
- Using varied materials in response to student needs.
- Modifying or differentiating content, activities, and products.
- Self-reliant and independent students.
Question 2. What are some specific learner needs you saw teachers attempt to address through differentiated instruction, and in what ways did the teachers address those needs?

- For students who were likely to get bogged down in charting data, the middle school science teacher allowed them to use the computer so they could grasp the key ideas of the lesson.
- For students’ different strengths and interests, the primary teacher selected tasks in the pioneer lesson that would call on their individual strengths and interests.
- For students at different levels of understanding fractions, the 4th grade teacher provided opportunities to explore fraction concepts at different levels of complexity.
- For students who were not skilled in designing and engineering pop-up paper art, the high school art teacher modified the product requirements so students could use flat paper art while demonstrating their learning about the work of student-selected artists.

Question 3. In what ways might differentiated instruction benefit your students? Teachers in your school? Your school as a whole?

Students:

- Tasks are appropriately challenging — neither frustrating nor boring.
- Students are more motivated when the task matches their readiness levels and interests.
- Classrooms are more flexible and allow students to move around and be active in learning.
- Students learn better when they are clear on the big ideas and key skills being explored rather than learning many discrete facts to cover the curriculum.
- Each student can earn genuine success by starting at her own beginning point and progressing.
- Students become more independent and aware of ways in which they learn most effectively.
- Students learn to act as colleagues among peers.
Teachers:

- Teachers get to know individual students better.
- Teachers get better at understanding and addressing individual needs.
- Teachers feel better about meeting individual needs.
- Teachers discover that discipline problems decrease as students feel less frustration and boredom.
- Teachers feel more creative.
- Teachers become clearer on the essential skills and understandings in their subjects, and feel less compelled to “cover” the curriculum.
- Teachers are energized as their students experience growth.
- Teachers develop a wider repertoire of management and instructional strategies.
- Teachers work more collaboratively with colleagues.

School:

- Students feel better about themselves as learners, consequently, they feel better about their classes and about school in general.
- Students develop a greater appreciation and respect for peers and learn to work more collaboratively with fellow students.
- The school grows as an effective institution because of the staff’s professional growth.
- Parents feel better about the role of the school in their childrens’ lives.

Question 4. What are some factors that make it difficult to differentiate instruction?

- Large class sizes.
- Small classrooms.
- Short blocks of time.
- Pressure to cover curriculum guides.
• Emphasis on standardized or competency testing.
• Little time for teacher planning.
• Teacher discomfort with managing a differentiated classroom.
• Fear of administrative disapproval if classrooms are noisy.
• Traditional report cards.
• Adoption of single textbooks for a given class (subject and grade).
• Shortage of supplementary materials.

**Question 5. What actions might we take in the very near future as a school (or district) and as individual teachers to support more differentiated instruction?**

• Work together as teams to plan differentiated activities.
• Begin slowly and work at a pace that makes sense for you.
• Systematically study your students.
• Include suggestions for differentiation in curriculum guides as curriculums are revised.
• Use parents, community volunteers, and the full range of school personnel in classrooms to have extra pairs of hands working with individuals and small groups.
• Observe in classrooms where teachers do some differentiation of instruction.
• Use peer coaching teams to work toward differentiation.
• Allow teachers to opt for texts and supplementary materials at varied grade levels, rather than whole-class or grade adoption of single texts or supplementary materials.
• Encourage parents and community members to donate materials related to student interests.
• Help parents and students understand what differentiated instruction is and why it makes sense.
Needs Assessment (Optional — 5 minutes)

1. If appropriate, tell participants you are interested in finding out ways you and others might help them learn more about differentiated instruction and its implementation in classrooms. Distribute Handout 3, “Where Do We Go From Here?” Ask participants to complete the brief assessment of needs and interests so that you will be better able to provide useful assistance.

2. Thank the participants for their time, participation, and contribution to the workshop. Collect Handout 3 from participants.
Workshop 2

This 6-hour workshop is suggested for educators who wish to examine the key concepts and principles of differentiated instruction; see examples of how teachers differentiate content, activities, and products; and explore how to plan a differentiated lesson.

The times listed in the following agenda include the time required for viewing Tape 1 and suggested times for completing workshop activities. You may want to adjust the time schedule to meet the needs and interests of your group.

## Agenda and Time Guide: Workshop 2

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<th>Time (minutes)</th>
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<td>View Segment 1 of Tape 1</td>
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<tr>
<td>Break</td>
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<tr>
<td>Analyzing a Differentiated Classroom</td>
<td>45</td>
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<td>25</td>
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<tr>
<td>View Segment 2 of Tape 1</td>
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<td>Reactions to Video Segment 2</td>
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<tr>
<td>Analyzing a Readiness-Based Task/Designing a Tiered Activity</td>
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<td>Lunch Break</td>
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<td>View Segment 3 of Tape 1</td>
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<td>Reactions to Video Segment 3</td>
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<tr>
<td>Student Interest and Learning Profile/Developing a Differentiated Activity</td>
<td>45</td>
</tr>
<tr>
<td>Concluding the Workshop</td>
<td>10</td>
</tr>
<tr>
<td>Approximate Workshop Time</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

For this workshop, you will need copies of Handouts 3–15 for participants. You will also need transparencies of Overheads 1–3. Masters for these are in the “Handouts and Overheads” section of this guide. You may provide workshop participants with a copy of the resource list located in the “Resources and Readings” section. Materials needed for this workshop include chart paper, felt-tip markers, masking tape, blank overhead transparencies, and erasable markers. Some activities require
information to be written on chart paper. To save time, these can be prepared before the workshop.

**Introduction (25 minutes)**

1. Introduce yourself to participants. Then show Overhead 1 and explain that the focus of today’s workshop is on differentiating, or modifying, instruction based on differences in students’ readiness, interests, and learning profiles.

   Explain your role as the workshop facilitator. As a facilitator, you will guide the group through the workshop and help them meet the workshop goals. Show Overhead 2 and call their attention to the objectives. Briefly discuss these objectives and review the workshop agenda. (Allow 5 minutes.)

   By the end of this session, participants will be able to
   • Identify key features of an effectively differentiated classroom.
   • Explain some of the key concepts and principles of differentiated instruction.
   • Analyze differentiated learning tasks.
   • Expand their repertoire of strategies for assessing student readiness, interest, and learning profile.
   • Translate one or more key principles of differentiation into their own classrooms.

2. Distribute Handout 4, “Addressing Diverse Learner Needs,” and introduce this activity:
   - **The purpose of today’s workshop is to help us explore what differentiated instruction is and why we might use it. This first activity is designed to get us thinking about how differentiation might relate to our own teaching experiences.**

   Ask participants to work alone to complete Handout 4. (Allow 8 minutes.)
3. Ask participants to share the following with the group:

- Two or three descriptions (without using names) of students they have taught who have had learning needs that differ from “standard expectations” — for example, a student who is vastly ahead in math; a student who thinks very clearly and has highly creative ideas, but has trouble writing them down; a student who is under stress due to difficulties at home; a student for whom English is not her first language.

- What these students need in their classes to have a really excellent school year — for example, a sense that they are respected, someone to help them with reading, more time for many tasks, and more advanced math materials.

- Examples of things teachers do to make teaching responsive and appropriate for students like the ones they have described — for example, allowing students to stay after school for extra help, encouraging independent projects, and asking individuals questions that match their readiness level in a discussion.

- Factors that make it difficult for teachers to differentiate instruction — for example, large class size, one set of textbooks, fragmented instructional time, not enough time for teacher planning, and not knowing how to manage a differentiated classroom.

4. Thank participants for sharing their experiences and views.

**View Segment 1 of Tape 1 (26 minutes)**

1. Introduce the video segment by telling participants:

   - The educators you are about to see have had teaching experiences similar to those we’ve just shared as a group and have struggled with many of the same issues. This video segment will allow us to see how some other educators have begun to respond to varied learner needs in academically diverse classrooms.

2. Distribute Handout 5, “Looking at Differentiated Lessons.” Ask participants to jot down their reactions on the organizer as they view the segment. In the “P” column, participants should note things they think are positive about the classrooms and comments. In the “M” column, ask them to note things that strike them as minuses or troublesome about the classrooms or comments. In the “I” column, they should note things they see or thoughts they have as they watch.
that are just interesting to them — neither positive nor negative. Tell the participants that they will have some time after viewing the tape to finish writing their notes.

3. Answer any questions from participants. Then view the first segment of Tape 1, *Creating Multiple Paths for Learning*. This segment examines what differentiated instruction is and shows three classroom examples of differentiation of content, activity, and product. It runs from the beginning of the tape to the end of the high school art class working on differentiated products (about 23 minutes).

**Reactions to Video Segment 1 (15 minutes)**

1. After viewing the first segment of the video, give participants 3–4 minutes to finish making notes on their PMI organizer (Handout 5). As they work, tape three pieces of chart paper on a wall with a “P” at the top of one, an “M” at the top of the second, and an “I” at the top of the third.

2. Ask for three volunteers to jot down participants’ comments on the chart paper.

3. Invite participants to share with you the positive, negative, and interesting thoughts that came to them as they viewed the videotape. Facilitate the discussion as your volunteer scribes write participants’ comments on the appropriate sheets of chart paper.

4. Thank participants for thinking along with you. Point out to them that the topic today is a complex one and involves educators thinking about change. The purpose of this and other activities is to facilitate that thinking process — not to provide easy or automatic answers.

**Break (15 minutes)**

**Analyzing a Differentiated Classroom (45 minutes)**

1. Begin this activity by saying:
   - In this activity, we’ll focus on key principles that are evident in well-differentiated classrooms by doing an analysis task where we’ll look closely at a differentiated setting and think about principles or guidelines behind what we see. It’s important to understand these key principles so our planning is
2. This activity can be done as a differentiated experience or it can be done with all participants doing the same task. If you want all workshop participants to take part in the same task, they will all need Handout 6, “Principles of Differentiated Instruction,” and Handout 7, “Scenario of a Differentiated Classroom.”

If you want to model differentiation, some participants can analyze the scenario in Handout 7 (Scenario Group) and other participants can analyze Segment 1 of the video (Video Group). Ask if there are any participants who would like to view the first video segment again. If so, give them Handout 6, which they will use to help analyze the video segment as they view it again.

3. Ask the Scenario Group to read Handout 7 silently and alone. When they have finished reading, they should form groups of three to complete the analysis matrix on Handout 6. In the column labeled “Evidence of Use,” they should write examples of how they saw the principle applied in the scenario (Handout 7). In the column labeled “Suggestions for Use and Improvement,” they should write ideas for improving the action or practice they noted in the Evidence of Use column. Indicate that the blank squares (in the left column of the matrix) are for them to record additional principles of a differentiated classroom that they feel are important.

If you have a Video Group, ask those participants to pull their chairs close to the TV monitor. Turn the screen away from the Scenario Group so the images won’t be distracting. Also, lower the volume so it will not disturb the other group. The Video Group should read Handout 6 and watch the segment with the goal of completing the analysis matrix as it relates to the video examples. Encourage them to jot down notes on the matrix individually as they watch the segment, then work as a single small group (or in pairs or triads) after the viewing to complete the matrix more fully.

If you have two groups, you might want to provide one copy of Handout 8, “Video Group Task Card,” to the Video Group. Give the instruction sheet to one person in the group to share with all members of the group. This will allow you to focus your attention on giving instructions to the Scenario Group. In this way, you will be modeling an important practice of differentiation — finding varied ways to give instructions to different groups, so that group members
do not waste time listening to instructions irrelevant to their work, or become confused by doing so.

4. Inform participants of the goal of this activity by saying:

◆ **Our goal in this activity is not to be critical of the teachers in the video or scenario — nor necessarily to praise them. It is difficult to know all of the things these teachers usually do because we have only short glimpses into their classrooms. Rather, the goal is to look for illustrations of key principles where we see them and to talk about ways we might enhance or emphasize the principles if we had the opportunity to “write the script” ourselves — including use of the principles in our own classrooms.**

5. Allow about 30 minutes to do the analysis and fill in the matrix on Handout 6.

6. Reconvene the group as a whole. Discuss with them items such as the following:

- Why some of them might have preferred to view the video again, while others did not. (This is a learning preference similar to ones that students have in our classes.)

- Discuss whether it bothered anyone that two groups were doing somewhat different tasks. (If it did, discuss what steps might be taken in a classroom to reduce distractions.)

- Point out how you managed to avoid giving two sets of oral instructions to the whole group when each group only needed the one set related to their tasks.

- Ask what principles the participants may have added in the blank boxes in the left column of Handout 6.

- Select two or three of the principles printed on Handout 6. Ask participants to give you evidence of their use (either in the scenario or in the video).

- Ask participants to share with the group ways in which they might use the principles in their own classrooms or enhance their use in the scenario or video.

(Allow 10–15 minutes for the whole-group discussion.)

7. Thank participants for their ideas and insights.
Differentiating Content, Activities, and Products
(25 minutes)

1. Distribute Handout 9, “Differentiating Content, Activities, and Products,” and tell participants that this handout identifies several ways to differentiate content, activities, and products. Ask participants to read the handout individually and add any other strategies they think of to the lists. (Allow 3–5 minutes.)

2. Ask participants to form groups of 4 members each, and to discuss the strategies they have used to differentiate instruction or specific ways that they can envision using one or more of the strategies in the near future to provide differentiated learning experiences for their students. If they have previously used any of the strategies to support differentiation, ask them to discuss why it was or was not effective and how they might enhance the use of the strategy the next time. (Allow 15 minutes for small-group discussion.)

3. Reconvene the whole group and ask participants to share some of their ideas for using several of these strategies to differentiate instruction.

View Segment 2 of Tape 1 (13 minutes)

1. Tell participants that you will continue looking inside differentiated classrooms by viewing another segment of the videotape. Ask them to recall the principles on Handout 6 as they watch the segment and to look for ways in which the principles are reflected in it.

2. Answer any questions from participants. Then view the second segment of Tape 1. This segment features a differentiated lesson on pioneer life in a 1st grade class and ends with the whole-class discussion comparing pioneer life and contemporary life (about 13 minutes).

Reactions to Video Segment 2 (15 minutes)

1. Have participants individually jot down one thing they saw a teacher do in this segment that they liked — and why. Ask them also to jot down one question they had as they watched the segment. (Allow 2–3 minutes.)

2. Ask participants to turn to a person near them — but someone with whom they have not worked today — and share what they wrote.
down. Ask them to try to respond to their partner’s question.
(Allow about 3 minutes.)

3. Ask the two questions again for whole-group response: (a) What is something you found positive or helpful in the segment—and why did you feel that way? (b) While watching the video segment, what question occurred to you?

Allow time for several responses to each of your inquiries, including a chance for participants to propose answers to their colleagues’ questions. (Allow 8–10 minutes.)

4. Thank participants for their ideas. Tell them your intent was not to answer all questions they might have, but rather to give them a sense of what others in the group are thinking and to encourage them to share some of their own insights.

**Stand and Stretch Break (2 minutes)**

Tell participants that they are about to work with another activity designed to help them think further about differentiation and that you’d like to give them a chance to move around just a bit before beginning that activity. Tell them that they have two minutes to stand, stretch, and chat with colleagues near them. Ask them to watch for your signal that the two minutes are over (e.g., a raised hand, turning on the overhead light, flashing room lights) and to return to their seats when the signal is given.

**Analyzing a Readiness-Based Task/Designing a Tiered Activity (35 minutes)**

NOTE: You may once again opt for having all workshop participants perform the same task or you may differentiate the activity by offering a second option. You will need to decide which plan you wish to follow and provide appropriate handouts and directions accordingly.

1. If you decide to have all participants do the same activity, use Task 1. If you want to model differentiation, offer Task 2 as well. In Task 1, participants will analyze a set of differentiated task cards on Handout 10, “Analyzing a Readiness-Based Task.” This analysis of tasks will be guided by using Handout 11, “The Equalizer: Planning for Student Readiness.” Task 1 is designed for educators who are relatively inexperienced in creating activities differentiated by readiness. If you have workshop participants who already do a great
deal of differentiation of activities by readiness, they might profit more from Task 2. In Task 2, participants will generate a tiered activity of their own (one that has either two, three, or four readiness levels), and they will be asked to interpret for other participants how they thought about the varying “degrees of difficulty” in the different tiers — using the language of “The Equalizer” (Handout 11) to do so.

The instructions for Task 1 are as follows:

Take a few minutes to read the Task Cards provided on Handout 10. Then work with one partner to analyze why the various tasks escalate in difficulty, using the language on “The Equalizer” (Handout 11) to do so. Be ready to share your analysis of the tasks with others.

The instructions for Task 2 are as follows:

Working independently, generate a tiered lesson activity that you might use with your students. It should have two, three, or four tiers based on readiness. It should also ensure that all learners are working with the same key understandings and all are working with interesting and respectful tasks. Be ready to share the activity with others in the larger group and to use the language of “The Equalizer” (Handout 11) to talk about why some tiers are more advanced than others.

If you use only Task 1, it will work well for you to give oral instructions to the whole group. If you differentiate the activity, ask participants who are doing Task 2 (those who already consistently differentiate instruction in their classrooms) to meet in one area of the room and provide them with copies of Handout 11. Also, give one member of the group a copy of Handout 12, “Task Card: Designing a Tiered Activity.” This handout contains directions for the activity, so the group can begin working immediately.

Give oral instructions to the Task 1 group. You may also want to display Overhead 3, which has the Task 1 instructions, for the group to refer to as they work.

Allow approximately 20 minutes for participants to work on their tasks.

2. Form groups of 5 or 6 participants and ask them to share their analyses. If you used the differentiated version of the activity, be sure the sharing groups contain at least one Task 2 participant. Let participants know they will have 15 minutes for this phase of the
activity and encourage them to watch the time so that all group members have a chance to share what they have developed.
(Allow 15 minutes.)

3. Thank participants for their time and ideas. Tell them you hope they are finding it useful to hear how colleagues think about and apply principles of differentiation. Tell them that after lunch, they will have additional opportunities to look at another video segment and apply some more of their thoughts about meeting the needs of academically diverse learners.

**Lunch Break (60 minutes)**

**View Segment 3 of Tape 1 (15 minutes)**

1. Reconvene the workshop. Tell participants that they will continue to explore some key features of classrooms in which teachers differentiate or modify instruction based on student readiness, student interest, and student learning profile.

2. Encourage participants to recall the principles of differentiated instruction on Handout 6 and the language of “The Equalizer” (Handout 11) as they view the final segment of the video. You may want to give participants a minute or two to look over Handouts 6 and 11.

   Ask for volunteers to tell the group what they consider, up to this point, to be the most essential elements of differentiated instruction. Tell participants that during and following this segment, you will be focusing on differentiation of instruction by student interest and student learning profile, as well as by student readiness.

3. Answer any questions from participants. Then show the remainder of Tape 1 (approximately 10 minutes). This final segment focuses on a 4th grade social studies lesson in which content is differentiated based on student interest, and activities are differentiated based on student readiness.

**Reactions to Video Segment 3 (20 minutes)**

1. Remind participants that throughout all three segments of the video, teachers have talked about making decisions about students’ readiness levels, students’ interests, and students’ learning profiles.
2. Prepare an overhead transparency or a piece of flip chart paper with three columns (labeled readiness, interest, and learning profiles), and ask the participants to identify ways they find out about student readiness, interests, and learning profiles — including ways they saw other educators in the tape assess these elements.

Remind participants that readiness refers to readiness for a given skill, concept, or way of thinking. Interests have to do with those things learners find relevant, fascinating, or worthy of their time. Learning profile refers to things such as learning style (e.g., whether someone is a visual or auditory learner, likes working in quiet places or where there is some noise), intelligence preference (e.g., preferences that may range from Gardner’s linguistic, logical-mathematical, bodily-kinesthetic intelligences, and Sternberg’s analytical or creative intelligences to other preferences and models), how the student takes in and processes information (e.g., part-to-whole or whole-to-part; step-by-step or holistically), and how the learner sees himself in relation to the rest of the world (e.g., peer-directed, authority-directed, self-directed; powerful or powerless).

You might want to use the following headings and “starter” ideas in each column as you begin the discussion.

<table>
<thead>
<tr>
<th>Suggestions for Assessing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readiness</td>
</tr>
<tr>
<td>homework</td>
</tr>
</tbody>
</table>

3. Ask for other comments or questions about this segment of the video.

4. Thank participants for their ideas.

**Student Interest and Learning Profile/Developing a Differentiated Activity (45 minutes)**

1. If you used the differentiated version of the previous activity, tell participants that they were grouped for the previous task somewhat by readiness or comfort level with differentiation. Participants who felt more comfortable with differentiation worked with a less structured and more complex task than those who saw themselves at
an earlier stage of exploration and therefore probably needed a more clearly structured and more basic task. Tell them that, for this task, you’d like to divide into groups by interest and learning profile.

If you did not differentiate the previous activity, tell participants that they will experience a differentiated activity in this part of the workshop. They will do different tasks based on their interest and learning profile.

2. Ask participants to decide whether they are more interested in creating a way to find out about student interest and learning profile OR if they are more interested in developing an activity based on student interest and learning profile.

3. Assign each of the two resulting groups to a particular area of the room. Before they move, tell participants:

- **When you move to the part of the room designated for the task you are most interested in working on, you will find a flip chart with directions for your task and necessary handouts. You have the choice of working on the task alone, in pairs, or in triads. You should take advantage of available space to find a quieter place to work, if having quiet is especially important to you. And finally, be ready to share what you worked on with some members of the larger group.**

4. The group that selected the task of developing a means of assessing student interest and learning profile should be given Handout 13, “Assessing Interest and Learning Profile,” and should have the following flip chart instructions:

- Use Handout 13 and the directions on it to create a means of surveying students’ interests and learning profiles that would be useful to you and other teachers who teach at or near your grade level.

- If you prefer developing a procedure different from the one suggested on Handout 13, feel free to do so.

- You may work alone, in a pair, or in a triad.

- Sit where it’s easiest for you to work.

- Be ready to share what you’ve developed.
The group that selected the task of developing activities differentiated on the basis of interest or learning profile should receive Handout 14, “Cubing as a Strategy to Address Learner Differences,” and the following flip chart instructions:

- Use Handout 14 and the directions on it to create a cubing activity based on student interest and learning profile that would be useful to you and others who teach at or near your grade level.
- You may work alone, in a pair, or in a triad.
- Sit where it’s easiest for you to work.
- Be ready to share what you’ve developed.

(Allow 25 minutes for this portion of the activity.)

Ask participants to form sharing groups, with each group having at least one individual or cluster that worked with the assessment task and at least one individual or cluster that worked with the activity development task. Tell them they will have 15 minutes to exchange ideas, and ask them to monitor the available time so that all members of the group have time to present what they developed. (Allow 15 minutes for this portion of the activity.)

Concluding the Workshop (10 Minutes)

1. Remind participants of the objectives of today’s workshop. Tell them you hope they feel the workshop addressed the goals effectively and that they have extended their thinking about ways in which teachers can make classrooms a better fit for more learners.

2. Remind participants that the teachers they’ve seen in the video have begun the process of differentiation at a pace that makes sense for them. We often make the most significant changes in our lives and professions by taking a step at a time — not by waving a wand and changing everything at once. Encourage participants to select one step toward more responsive instruction that they will take next week, using that as their beginning point.

3. Distribute Handout 15, “Summary Notes,” and tell participants it provides a brief review of differentiation that may be useful as they reflect on today’s workshop. Let participants know how they can get additional assistance in understanding and practicing differentiated instruction more effectively. Sources might include print resources you are familiar with, resources listed in the “Resources and...
Readings” section of this manual, people in your district who have experience in this area and can offer strategies for addressing needs of diverse learners (among whom would probably be special education teachers, gifted education teachers, specialists in remedial education, media specialists, curriculum specialists), the second videotape in this series, and other suggestions you may have.

If you have a workshop session already scheduled using Tape 2 of this series, announce the date, time, and location so those interested in it can inform you that they plan to attend.

4. If appropriate, tell participants that you are interested in finding out how you and others might help them learn more about differentiated instruction and its implementation in classrooms. Distribute Handout 3, “Where Do We Go From Here?” Ask participants to complete this brief assessment of needs and interests so that you will be better able to provide useful assistance.

5. Thank the participants for their time, participation, and contribution to the workshop. Collect Handout 3 from participants.
Workshop 3

This 75-minute workshop uses Tape 2 to provide an overview of various instructional and management strategies that can be used in a differentiated classroom. The format suggested here allows for connecting participants' own teaching experiences with the video examples, where teachers use a range of strategies to facilitate differentiation, and allows for a brief discussion of participant responses to the video.

We suggest the following agenda for this 75-minute session:

**Agenda and Time Guide: Workshop 3**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>15</td>
</tr>
<tr>
<td>View Tape 2 — Instructional and Management Strategies</td>
<td>45</td>
</tr>
<tr>
<td>Reactions to the Video</td>
<td>15</td>
</tr>
<tr>
<td>Needs Assessment (Optional)</td>
<td>5</td>
</tr>
<tr>
<td>Approximate Workshop Time</td>
<td>75 minutes</td>
</tr>
</tbody>
</table>

For this session, you will need copies of Handouts 3, 16, and 17. You will also need a transparency of Overhead 4. The masters for these are in the “Handouts and Overheads” section of this guide. You will also need an erasable marker to write on the overhead transparency.

**Introduction (15 minutes)**

1. Introduce yourself to the participants and explain that the purpose of the session is to orient participants to various instructional and management strategies available for modifying instruction in response to the differences in students’ readiness, interests, and learning profiles.

2. Distribute Handout 16, “Strategies I Use to Help with Differentiation.” Give each person about 5 minutes to complete the grid. Tell participants this handout is for their own use and will not be collected.

3. As a whole group, have participants share their comments on Handout 16. The purpose of the chart is to link participants’ experiences with those of the teachers in Tape 2. Overhead 4 can be used for recording sample responses as participants share their ideas.
Ask teachers to give examples of varied learner needs in their classrooms (e.g., some students know more and some less about a topic when we begin, some students have real difficulty with writing, some students have a hard time sitting still and listening, some students know more about some topics than I do). Record abbreviated answers on the overhead.

Next, for each strategy listed in the center column of the chart, take a quick count of the participants who use the strategy FOR THE PURPOSE OF DIFFERENTIATING INSTRUCTION. Record the totals on the overhead. Then ask for additional strategies listed by participants and add them to the chart.

Then, have two or three volunteers share how they completed the last column. Jot down one or two examples on the overhead. A sample response might be as follows: A strategy I use to differentiate instruction is independent study. A benefit of independent study is that it allows students who already know certain skills and information to extend their learning rather than repeating things they already know, while other students get a chance to spend more time learning those skills and information. A thing I worry about with independent study is that students doing it may feel isolated from the class as a whole.

4. Thank participants for taking part in the introductory activity.

View Tape 2 — Instructional and Management Strategies (45 minutes)

1. Tell participants the following:
   ◆ This videotape will take us into the classrooms of several teachers who differentiate instruction. We’ll see how they use various instructional and management strategies to help meet the diverse needs of learners in their classes. Some of these strategies are not new, but have been modified somewhat to help support a differentiated learning environment.

2. Show the entire videotape.
Reactions to the Video (15 minutes)

1. Distribute Handout 17, “Thinking About Tape 2,” and ask participants to form small groups (about five per group). Assign each group a specific question from Handout 17 to discuss. Ask each group to select a spokesperson who will share responses from the small group with the large group. (Allow 5–6 minutes for small-group discussion.)

2. Reconvene the large group and ask the spokespersons from the smaller groups to share answers to their group’s question. After each small group has shared responses, ask for additional comments or observations from the audience. Participants may want to write key ideas on their own handouts. (Allow 8–10 minutes.)

Possible answers for Handout 17:

**Question 1.** Based on what you saw in the videotape, why might these teachers find it worth their time and effort to differentiate instruction based on student readiness, interest, and learning profile?

- A greater range of students find success in the classroom.
- It’s easier to notice the progress of students in a differentiated classroom.
- Students become more independent learners.
- Student-to-student collaboration increases.
- Teachers feel more creative.

**Question 2.** How are the roles of the teacher, the students, the curriculum, and instruction different in these classes than in more “typical” or “traditional” classes?
<table>
<thead>
<tr>
<th>Role of</th>
<th>In a Traditional Classroom</th>
<th>In a Differentiated Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Dispenser of information</td>
<td>Coordinator, facilitator</td>
</tr>
<tr>
<td>Student</td>
<td>Receptacle for information</td>
<td>Decision maker, sense maker</td>
</tr>
<tr>
<td>Curriculum</td>
<td>Topics to be covered</td>
<td>Concepts, generalizations,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>skills explored in varied</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ways</td>
</tr>
<tr>
<td>Instruction</td>
<td>Single pace, single set of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>materials, single mode of</td>
<td></td>
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<td></td>
<td>assessment, assessment as</td>
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<td></td>
<td>end point</td>
<td>Varied pace, multiple mater-</td>
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<td>ials, alternative assess-</td>
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<td>ments, ongoing assessment</td>
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<tr>
<td></td>
<td></td>
<td>used to modify plans</td>
</tr>
</tbody>
</table>

**Question 3:** What specific instructional and management strategies do the teachers on the video use in their classes? How do the particular strategies facilitate differentiation of curriculum and instruction in response to needs of academically diverse learners?

- Compacting — enables students who are ahead in a given area of study to keep learning at their own pace.
- Independent Study — encourages pursuit of individual’s interest.
- Anchoring Activities — provides meaningful work for students to do when assignments are completed.
- Differentiated Learning Centers — encourages students at varying points of readiness to work with skills and ideas at an appropriate level of challenge.
- Flexible Grouping — ensures that students work with peers of similar readiness, differing readiness, similar interests, differing interests, similar learning profiles, and mixed profiles, as appropriate for a given task and student.
- Adjusting Questions — challenges all students by adjusting the complexity of questions posed to students based on their readiness and, in so doing, stretches each student.
- Learning Contracts — provides a mechanism to target work to the readiness levels of groups of students, while letting students plan their time and make decisions about the sequence in which work is done, working conditions (e.g., work alone, with partner), and choices about specific tasks to be done.
• Tiered activities — encourages students at varying points of readiness to work with skills and ideas at an appropriate level of challenge.

**Question 4. What are some issues or problems of setting up and managing a differentiated classroom? How do you suppose the teachers shown in the video handle(d) those issues or problems?**

- **Potential Problem** — Student expectation that everyone does the same thing, in the same way, over the same time span.
  **Potential Solution** — Consistently work with students to help them understand, accept, and appreciate one another’s likenesses and differences in learning.

- **Potential Problem** — Keeping track of what everyone is working on.
  **Potential Solutions** — Have students keep records of their own work. Keep notebooks with individual pages for assessing student growth in key areas at regular intervals.

- **Potential Problem** — Fear of assigning students to “wrong” activities.
  **Potential Solutions** — Enlist students to help you determine appropriateness of tasks. You’ll make fewer mistakes by basing assignments on ongoing assessments rather than basing them on a one-size-fits-all approach. Remember that with flexible grouping, students don’t remain with one group or task for long.

**Question 5. What are some factors in your classroom, school, and district that make it difficult to differentiate instruction? How do you suppose the teachers in the video have dealt with those factors?**

- **Potential Problem** — Report cards based on the assumption that everyone should be graded in comparison with others rather than in comparison with self.
  **Potential Solution** — Develop reporting systems that address both the need for indicating student growth and relative student standing.

- **Potential Problem** — Shortage of time for teacher planning.
  **Potential Solution** — Work toward differentiation at a pace that makes sense for you.

- **Potential Problem** — Large class size.
  **Potential Solution** — Help students learn to be more independent and more dependent on one another than on the teacher.
• **Potential Problem** — Test-driven curriculums (standardized or proficiency).

**Potential Solutions** — Be sure mandated skills are integrated into activities and products.

**Needs Assessment (Optional — 5 minutes)**

1. If appropriate, tell participants you are interested in finding out how you and others might help them learn more about differentiated instruction and its implementation in classrooms. Distribute Handout 3, “Where Do We Go From Here?” Ask participants to complete the brief assessment of needs and interests so that you will be better able to provide useful assistance.

2. Thank the participants for their time, participation, and contribution to the workshop. Collect Handout 3 from participants.
Workshop 4

This 6½-hour workshop is suggested for educators who wish to explore instructional and management strategies that support a differentiated classroom. It is recommended that participants see Tape 1 in the series or otherwise be familiar with the principles and key concepts of differentiated instruction before participating in this workshop.

The times listed in the following agenda include the time required for viewing Tape 2 in segments and suggested times for completing the workshop activities. You may want to adjust the time schedule to meet the needs and interests of your group.

**Agenda and Time Guide: Workshop 4**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>25</td>
</tr>
<tr>
<td>View Segment 1 of Tape 2</td>
<td>19</td>
</tr>
<tr>
<td>Reactions to Video Segment 1</td>
<td>30</td>
</tr>
<tr>
<td>Break</td>
<td>15</td>
</tr>
<tr>
<td>Adjusting Questions</td>
<td>45</td>
</tr>
<tr>
<td>View Segment 2 of Tape 2</td>
<td>15</td>
</tr>
<tr>
<td>Reactions to Video Segment 2</td>
<td>12</td>
</tr>
<tr>
<td>Stand and Stretch Break</td>
<td>2–3</td>
</tr>
<tr>
<td>Mapping Out a Learning Contract</td>
<td>40</td>
</tr>
<tr>
<td>Lunch Break</td>
<td>60</td>
</tr>
<tr>
<td>Looking Back, Looking Ahead</td>
<td>15</td>
</tr>
<tr>
<td>View Segment 3 of Tape 2</td>
<td>18</td>
</tr>
<tr>
<td>Setting Up a Differentiated Classroom</td>
<td>25</td>
</tr>
<tr>
<td>Break</td>
<td>15</td>
</tr>
<tr>
<td>Learning Centers/Independent Study</td>
<td>45</td>
</tr>
<tr>
<td>Concluding the Workshop</td>
<td>10</td>
</tr>
<tr>
<td><strong>Approximate Workshop Time</strong></td>
<td><strong>6½ hours</strong></td>
</tr>
</tbody>
</table>

For this workshop, you will need copies of Handouts 3, 11, and 18–26 for each participant. You will also need transparencies of Overheads 5–10. Masters for these are in the “Handouts and Overheads” section of this guide. Participants will also need copies of “Learning Centers” and “Independent Study: A Flexible Tool for Encouraging Academic and Personal Growth,” which are in the “Resources and Readings” section. Materials needed for this workshop include chart paper, felt-tip markers, and
masking tape. Some activities require information to be written on chart paper. To save time, these can be prepared before the workshop.

**Introduction (25 minutes)**

1. Introduce yourself to participants and welcome them. Refer to Overheads 5 and 6, and tell participants it is your hope that today’s workshop will help them develop additional strategies to avoid lockstep instruction — so that our classrooms become as responsive as possible to the varied learning needs of students in them.

2. Explain your role as the workshop facilitator. As a facilitator, you will guide the group through the workshop and help them meet the workshop goals. Call their attention to the objectives on Overhead 7. Briefly discuss these objectives and review the workshop agenda (allow 5 minutes):
   - Identify key features of an effectively differentiated classroom.
   - Explain some of the key concepts and principles of differentiated instruction.
   - Use one or more instructional and management strategies that support differentiated instruction.
   - Identify ways in which participants currently employ strategies and principles of differentiation, as well as areas they might target for additional growth in differentiating instruction.

3. Distribute Handout 18, “Thinking About Academic Diversity in Your Classroom,” while explaining:
   - The purpose of today’s workshop is to help you explore particular instructional and management strategies teachers use to facilitate differentiation of instruction in response to student readiness, interest, and learning profile. This first activity is designed to stimulate our thinking about how differentiation might relate to our own teaching experiences.

   Ask participants to work alone to complete Handout 18. (Allow about 7 minutes.)

4. Ask participants to share with the group the things they like best about the way their classrooms and teaching address the needs of the academically diverse learners they serve. Record their responses on Overhead 8. Then ask participants to talk about some things they

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**Facilitator’s Note**

Display Overheads 5 and 6 during the time participants are arriving and settling in.

Throughout the workshop, when participants are working on tasks, be sure to walk among them, sit with various groups for a short time, listen to what they are saying, and perhaps take a few notes. Such action should help you with follow-up discussions, reflect your interest in what participants are thinking and doing, and also models the assessment role played by an observant and reflective teacher in a differentiated classroom.
would like to change about their classrooms and teaching to better serve the full range of needs in their students. Add these responses to Overhead 8. (Allow about 7 minutes.)

5. Thank participants for sharing their experiences and views.

View Video Segment 1 of Tape 2 (19 minutes)

1. Tell participants that they will be watching a videotape that features visits with teachers who are working to make their classrooms more flexible in response to the academically diverse populations they serve. Mention that you hope some of the issues and solutions discussed on the video are helpful in thinking about how we might make classrooms a better fit for the broad range of learner needs represented in them.

2. Distribute Handout 19, “Observations on Instructional and Management Strategies,” and say to participants:

- Throughout the videotape, we’ll be observing several classes and focusing on some of the instructional and management strategies the teachers use to help create a differentiated classroom. These strategies are listed on Handout 19. As you watch each video segment, you may want to jot down your observations and thoughts about these strategies.

3. Answer any questions from participants. Then view the first segment of Tape 2, Instructional and Management Strategies. This segment focuses on how a 1st grade teacher helps prepare students to work in a differentiated classroom and how a high school math teacher uses the strategies of anchoring activities, adjusting questions, and tiered activities. The segment runs from the beginning of the tape to the end of the high school precalculus class (about 16 minutes).

Reactions to Video Segment 1 (30 minutes)

1. After viewing the first segment of the video, distribute Handout 20, “Thinking About Two Kinds of Classes.” Give participants 5–6 minutes to work with the chart alone and quietly (allow 5–6 minutes).

As the participants work on Handout 20, place five pieces of chart paper on a wall (separate them enough so groups can assemble around them). Each paper should be labeled at the top with one of the five categories on the handout: Nature of the Student, Nature of the Teacher, Nature of Time, Nature of the Curriculum, and Nature
of Instruction. Each paper should also have a vertical line down the center with the title “Traditional Class” over the left column and “Differentiated Class” over the right column.

2. Ask participants to form small groups of 3–4 members with the people seated near them. Then invite the small groups to choose a piece of chart paper as a starting position (they will visit all five) and jot down their ideas for that category. After 3 minutes, call time and ask the groups to rotate to the next chart and repeat the process. Have the groups rotate until each group has provided information on every chart. (Allow about 17 minutes.)

If there will be too many small groups to complete a carousel brainstorm within one rotation through the five charts, increase the size of the small groups slightly or skip the carousel approach and ask for two volunteers to jot down participants’ comments on the chart paper. Each volunteer can manage two or three of the categories on chart paper.

3. Reconvene the whole group and highlight a few ideas from each chart. (Allow 7–8 minutes.)

4. Thank participants for thinking along with you. Point out to them that the topic today is a complex one and involves educators thinking about change. The purpose of this and other workshop activities is to facilitate that thinking process — not to provide easy or automatic answers.

Break (15 minutes)

Adjusting Questions (45 minutes)

1. Remind participants that math teacher Cory Berg uses the strategy of adjusting questions to address the learning needs of academically diverse students. With this strategy, questions are adjusted so that (a) individual students are appropriately challenged by the questions, and (b) all students are focused on important understandings and skills at a level that required thinking, not just repetition or regurgitation.

Tell participants that this follow-up activity provides an opportunity to work with adjusting questions for discussion, journals, research, learning centers, tests, homework, and other settings — and still
keeps in mind the ideas of appropriate student challenge, with all students at high levels of thinking.

2. Ask participants to arrange themselves in groups of no more than 4, by grade level if primary or elementary educators, and by subject if middle school or high school educators. You may want to designate areas of the room for particular grades or subjects if participants do not know one another. Tell them that once they have formed groups, they should send one group member to you to get the handouts needed for their participants.

3. Distribute Handout 21, “Adjusting Questions as a Strategy for Differentiation,” as group representatives request them. Project Overhead 9 throughout the time groups are working so participants can easily refer to the Equalizer continuums as they develop question sets. (Allow 20 minutes working time.)

4. As groups are working, move among them and request that each group place one question set they have developed on a piece of chart paper for sharing. As the question sets are recorded on the chart paper, look over them and select three or four sets for discussion by the whole group when it reconvenes. Your goal should be selecting sets that do demonstrate (a) varied “degrees of difficulty,” and (b) all questions at high levels of thinking (not recall or translation). It would also be helpful if your choices represented varied grade levels and subjects. However, the goal is examination of questions that require all students to consider essential understandings, at high levels of thinking, but at varying degrees of difficulty so that everyone is challenged.

5. Reconvene the whole group. Ask participants to take a few minutes to read over all the question sets that have been placed on the chart paper so they get a sense of how everyone worked with the idea of adjusting questions in response to academic diversity. (Allow 2–3 minutes.)

6. Next, call the group’s attention to a question set that you have mentally selected. Have volunteers from the group talk about whether the questions focus all students on essential understandings and skills, at high levels of thought, but at varying degrees of difficulty. It may be helpful for you to distribute Handout 11, “The Equalizer,” or use Overhead 9 as a visual reference. Encourage participants to determine, for example, whether one question in a set is more complex than another, more abstract than another, more
open-ended than another, or more multifaceted than another. When appropriate, move on to examine a second question set you’ve selected — and so on until time is up (allow 15–17 minutes).

7. Remind participants that a goal in a well-differentiated classroom is to have each student thinking at her individual peak — without pushing so hard that it creates a level of anxiety that diminishes the student’s thinking fluency and without underestimating an appropriate level of challenge so she answers with little mental energy. Adjusting questions for discussions, learning centers, journals, research, tests, and homework allows teachers to ensure that all students genuinely think about important ideas — and stretch a bit in doing so.

8. Thank participants for the questions they developed and the ideas they exchanged.

**View Segment 2 of Tape 2 (15 minutes)**

1. Tell participants that in this next segment of the video, they will have the opportunity to observe a 3rd grade teacher who regularly modifies instruction based on students’ diverse needs. Strategies featured in this segment are contracts, reading buddies, flexible grouping, and compacting.

2. Ask participants to watch for modeling of the key principles of differentiated instruction, as well as ways in which specific instructional and management strategies are used to facilitate differentiation. Remind them to jot down their observations and ideas on Handout 19 as they watch the segment.

3. View Segment 2 of Tape 2. This segment runs from the beginning of Nicole Freeman’s class as they work on language arts activities through their math session (approximately 13 minutes).

**Reactions to Video Segment 2 (12 minutes)**

1. Using Overhead 10 as a reminder of key principles of differentiation, ask participants to discuss the particular principles that the teacher in this video segment demonstrated. (Allow 5–6 minutes.)

2. Ask for additional ways the participants think the principles might have been applied in the class that was featured. Remind them that we see only brief portions of a class and that you are not asking for
criticism, but rather for ideas of ways the principles might work.  
(Allow 5–6 minutes.)

**Stand and Stretch Break (2–3 minutes)**

Tell participants that the next activity is designed to help them think further about differentiation, and that you would like to give them a chance to move around a bit before beginning that activity. Tell them you will give them two minutes to stand, stretch, and chat with colleagues near them. Ask them to watch for your signal that the break is over (e.g., a raised hand, turning on the overhead light, flashing room lights) and to return to their seats when the signal is given.

**Mapping Out a Learning Contract (40 minutes)**

1. Tell participants that one instructional strategy that is very useful for differentiating instruction is a learning contract. Nicole Freeman, the teacher in Video Segment 2, uses a learning contract as one of her strategies. It is particularly flexible and can be used in virtually all grade levels and in all subjects. Explain that teachers establish learning contracts in various ways, but their intent is generally to allow students more choices than is often allowed in many classrooms. In a differentiated classroom, contracts also allow the teacher to focus individuals or groups of learners on goals that are important for their current growth, while having everyone work within a similar framework.

2. Distribute Handout 22, “Designing a Differentiated Learning Contract.” Tell participants that the handout provides an explanation and a model of a contract. For this task, they may use other models more familiar to them if they wish. Ask them to work alone or with small groups of teachers who teach a similar grade level or subject to map out a learning contract at two or more levels of readiness that would be useful to them and their students. Let them know they will have 35 minutes, but that they probably will not complete the contract in that length of time. Several teachers working together on the contract may facilitate their progress toward completion. (Allow 35 minutes of working time.)

3. Reconvene the group and give participants the opportunity to ask questions or share their reactions to working on the contract (allow 2–3 minutes).
4. Thank participants for their time and ideas. Tell them you hope they are finding it useful to work with colleagues on strategies that support differentiation. Let them know that following lunch, there will be additional opportunities to look at another differentiated classroom and to work with other strategies and plans that enable us to modify instruction based on learner needs.

**Lunch Break (60 minutes)**

**Looking Back, Looking Ahead (15 minutes)**

1. Reconvene the workshop. Tell participants that they will be continuing to explore instructional and management strategies that help teachers differentiate, or modify, instruction based on student readiness, student interest, and student learning profile. In this segment of the workshop, they also will be looking at a few suggestions for establishing successfully differentiated classrooms.

2. Remind participants that the video shows at least six instructional strategies that aid in differentiation: learning contracts, flexible grouping, compacting, tiered assignments, adjusting questions, and anchoring activities. Ask participants to share examples of instances in which they have used any of these strategies effectively. Give participants the opportunity to ask questions about the strategies to those who have used them to differentiate instruction.

3. Thank participants for making connections between their own practice and what they have seen in the videotape.

**View Segment 3 of Tape 2 (18 minutes)**

1. Tell participants that the final segment of the video focuses on two other instructional strategies useful in differentiating instruction — differentiated learning centers and independent study.

2. Use Overhead 10 to remind participants of the key principles of a differentiated classroom. Ask them again to watch for the application of those principles, as well as ways in which particular instructional strategies are used. Remind them that Handout 19 can be used to jot down ideas about these strategies.

3. View Segment 3 of the tape. This segment runs from the beginning of Mary Hooper’s 1st/2nd grade class to the end of the videotape (approximately 16 minutes).
Setting Up a Differentiated Classroom (25 minutes)

1. Suggest to participants that as they watched the video, they have probably had questions about how to establish a classroom in which students work independently, on varied tasks, at varied rates, and using personal rather than group yardsticks for success. The teachers in the tape have evidently addressed those issues successfully. Tell participants that they will have an opportunity to think about some of the issues related to beginning a differentiated classroom.

2. Distribute Handout 23, “Setting Up a Differentiated Classroom.” Ask participants to take about 5 minutes to complete the grid, working quietly by themselves.

3. After 5 minutes, ask participants to count off by fours (1, 2, 3, 4; 1, 2, 3, 4). Then designate a corner of the room (or other area in the room) for all the ones to gather, all the twos, all the threes, and all the fours. If your group is very large, you may need to have two groups to each number (1–4) and to establish more spaces in the room for small groups.

Assign each group a question on Handout 23 to discuss. Ask each group to designate a spokesperson who will concisely share key thoughts from their group (about 1 minute per spokesperson). If you have extra small groups, you should ask spokespersons to be ready to share one key idea from their group discussions in about 30 seconds each. (Allow 10 minutes for the group discussions.)

4. Reconvene the group as a whole. Ask each spokesperson to state the question their group discussed and give a brief capsule of responses. (Allow 5 minutes for presentations.)

5. Remind participants that the issues they dealt with are complex and important. Tell them that conversations such as these are valuable in thinking about new ways to structure classrooms and learning in response to ongoing challenges.

6. Tell participants that after the break they will have an opportunity to select an instructional strategy they would like to use in their classrooms to facilitate differentiation and to develop a plan for its use.
Break (15 minutes)

Learning Centers/Independent Study (45 minutes)

1. Tell participants that you would like to differentiate the final workshop activity on the basis of their interests. Let them know there are three options. Some of them might like to work with differentiated learning centers, some with independent study as a tool for differentiation, and some might prefer to continue working with the learning contracts they began earlier in the day.

2. Ask participants to raise their hands to let you know whether they will work with differentiating learning centers, differentiated independent study, or continue with contracts. Assign each group to a portion of the room. Let them know they can decide to work alone or with a small group of others who chose the same strategy. Ask them to be ready to share what they have done with others in the large group.


Tell participants they will have 35 minutes to work on their tasks. (Allow 35 minutes.)

4. Ask participants to form sharing groups made up of two small groups, two individuals, or one small group and one individual who worked on the same task. Each group or individual should take 2–3 minutes to talk about some facet of what they accomplished — and to ask advice about what they are working on from others in the group. (Allow 5–6 minutes.)
Concluding the Workshop (10 Minutes)

1. Remind participants of the objectives of today’s workshop. Tell them you hope they feel the workshop addressed the objectives effectively and that they have extended their thinking about strategies teachers can use to make classrooms a better fit for more learners.

2. Remind participants that the teachers they have seen in the video have begun the process of differentiation at a pace that makes sense for them. We often make the most significant changes in our lives and professions by taking a step at a time — not by waving a wand and changing everything at once. Encourage participants to select one step toward more responsive instruction that they will take next week, and to use that as their beginning point.

3. Distribute Handout 26, “Instructional and Management Strategies for Differentiated Classrooms.” Participants may find this handout a helpful reference. Let participants know how they can get additional assistance in understanding and practicing differentiated instruction more effectively. Those sources might include print resources you are familiar with, resources listed in the reference section of this manual, people in your district who have experience in this area and who can offer strategies for addressing needs of diverse learners (e.g., special education teachers, gifted education teachers, specialists in remedial education, media specialists, curriculum specialists), the first videotape in this series, and other suggestions you may have.

4. If appropriate, tell participants that you are interested in finding out how you and others might help them learn more about differentiated instruction and its implementation in classrooms. Distribute Handout 3, “Where Do We Go From Here?” Ask participants to complete the brief assessment of needs and interests so that you will be better able to provide useful assistance.

5. Thank the participants for their time, participation, and contribution to the workshop. Collect the completed assessment of needs and interests.
You may want to plan a 6-hour workshop that uses both videotapes in one day. This workshop accomplishes that, however, it offers less interaction and workshop activity among participants than Workshops 2 and 4.

There are many ways you could mix and match activities and materials from Workshops 1–4 outlined in detail in the guide. Below is one possible plan for a 6-hour workshop using both videotapes.

**Agenda and Time Guide: Workshop 5**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Tape 1 (Using Handout 1)</td>
<td>20</td>
</tr>
<tr>
<td>View Tape 1 — <em>Creating Multiple Paths for Learning</em></td>
<td>45</td>
</tr>
<tr>
<td>Reactions to the Video (Using Handout 2 or 6)</td>
<td>20</td>
</tr>
<tr>
<td>Break</td>
<td>15</td>
</tr>
<tr>
<td>Follow-Up Activity and Discussion (Using Handouts 10 and 11)</td>
<td>50</td>
</tr>
<tr>
<td>Lunch Break</td>
<td>60</td>
</tr>
<tr>
<td>Introduction to Tape 2 (Using Handout 16)</td>
<td>15</td>
</tr>
<tr>
<td>View Videotape 2 — <em>Instructional and Management Strategies</em></td>
<td>45</td>
</tr>
<tr>
<td>Reactions to the Video (Using Handout 17)</td>
<td>15</td>
</tr>
<tr>
<td>Break</td>
<td>15</td>
</tr>
<tr>
<td>Follow-Up Activity and Discussion (with 4 groups by choice, using Handouts 21, 22, 24, and 25)</td>
<td>55</td>
</tr>
<tr>
<td>Concluding the Workshop (Handout 3 optional)</td>
<td>5–10</td>
</tr>
</tbody>
</table>

**Approximate Workshop Time** 6 hours
Handouts and Overheads
**HANDOUT 1**

Before viewing the videotape, please think about and complete the thoughts listed below and write your ideas in the space provided.

<table>
<thead>
<tr>
<th>Some examples of varied learner needs in my class</th>
<th>Some ways I try to address varied learner needs</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

**Thinking About Instruction Based on Student Needs**
Use this handout to reflect on ideas presented in the videotape program.

1. Based on what you saw in the videotape, what would you say differentiated instruction involves?

2. What are some specific learner needs you saw teachers attempt to address through differentiated instruction, and in what ways did the teachers address those needs?

3. In what ways might differentiated instruction benefit your students? Teachers in your school? Your school as a whole?
4. What are some factors that make it difficult to differentiate instruction?

5. What actions might we take in the very near future as a school (or district) and as individual teachers to support more differentiated instruction?
Please check below any items you would like to know more about. The information you provide will help us plan interesting and relevant staff development opportunities.

I’d like to know more about

- Research that supports differentiated instruction.
- How to select key concepts, principles, and skills for a lesson or unit.
- How to differentiate content.
- How to differentiate activities.
- How to differentiate products.
- Specific instructional strategies useful in differentiating instruction.
- How to manage a differentiated classroom.
- How to talk with parents and students about differentiation.
- What to do about grading in a differentiated classroom.
- Other (please list and explain).
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe one or two students you teach who have unique learning needs.</td>
<td>2. What would those learners need in their classes to make it a great year?</td>
</tr>
<tr>
<td>3. How do you currently address the needs of students with diverse learning profiles?</td>
<td>4. What factors make it difficult to modify curriculum and instruction for diverse learners?</td>
</tr>
</tbody>
</table>
Looking at Differentiated Lessons

Use this PMI organizer to reflect on and respond to the differentiated lessons and the educators’ comments about differentiation on the videotape. Record what you liked or found positive in the “plus” column. Note things you found negative or troublesome in the “minus” column. In the third column, jot down things you just thought were interesting or worth thinking about.

<table>
<thead>
<tr>
<th>P</th>
<th>M</th>
<th>I</th>
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</thead>
<tbody>
<tr>
<td>Plus</td>
<td>Minus</td>
<td>Interesting</td>
</tr>
</tbody>
</table>

Association for Supervision and Curriculum Development
Principles of Differentiated Instruction

Analyze the scenario you’ve read or the lesson samples in the video segment to identify specific examples of how these principles were applied. List them in the Evidence of Use column next to the appropriate principle. Then write any suggestions for improving the practice or action from the scenario or video in the Suggestions for Use and Improvement column.

<table>
<thead>
<tr>
<th>Principle</th>
<th>Evidence of Use</th>
<th>Suggestions for Use and Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learning experiences are based on student readiness, interest, or learning profile.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Assessment of student needs is ongoing, and tasks are adjusted based on assessment data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. All students participate in respectful work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The teacher is primarily a coordinator of time, space, and activities rather than primarily a provider of information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Students work in a variety of group configurations. Flexible grouping is evident.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principle</td>
<td>Evidence of Use</td>
<td>Suggestions for Use and Improvement</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>6. Time use is flexible in response to student needs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The teacher uses a variety of instructional strategies to help target instruction to student needs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Clearly established criteria are used to help support student success.</td>
<td></td>
<td></td>
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<tr>
<td>9. Student strengths are emphasized.</td>
<td></td>
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<tr>
<td>10.</td>
<td></td>
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<tr>
<td>11.</td>
<td></td>
<td></td>
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<tr>
<td>12.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What follows is a scenario providing sample content, activities, and products from a differentiated classroom, much like those you’ve seen on the video. Read the scenario carefully — perhaps even a second time. Then analyze the scenario using Handout 6.

**Background**

Ms. Largent has taught in a differentiated classroom for most of her 15 years as a teacher. Differentiation has become a natural and relatively automatic way for her to think about teaching and learning. She and her U.S. history students have spent much of this school year exploring the concepts of stability, change, and revolution. They have related these key concepts to the ebb and flow of history, making parallels to the time period they are studying, current events, students’ own lives, and other subjects such as literature and science. This helps students make connections between what they study in history, other areas they study, and their own lives.

Most recently, students have been looking at the idea of revolution in the past by looking at the Industrial Revolution in the United States, and revolution in the present by looking at current trends in technology. Students are investigating two parallel generalizations: (1) revolution affects individuals as well as nations, and (2) people affect revolution. Key skills for the unit are appropriate use and interpretations of research materials, and support of ideas with appropriate evidence.

**Getting Started**

To ensure that all students have the necessary background, students have worked on several tasks this week. First, Ms. Largent gave a pre-test on the chapter. Students who had considerable background knowledge began working with tasks designed to come after acquisition of background knowledge. Other students completed a K-W-L activity and then read the text chapter on the Industrial Revolution. By their own choice, some read with reading buddies and some alone. During the course of two days, the teacher met with small reading and discussion groups of 6–8 students. With struggling learners, she read key passages to them, had them read key passages aloud, and ensured their understanding of essential ideas and events. She also helped them think about their experiences and how those experiences might link with those of early adolescents during the Industrial Revolution. With two other small groups, she probed their comprehension of the chapter and then posed questions about how changes in
technology affected society then and now, for better and for worse. With one group of advanced learners, she had students propose and discuss social, economic, and political costs and benefits of the Industrial Revolution. Later, in a whole class discussion, she raised all of these ideas again.

To prepare for a chapter test, Ms. Largent assigned mixed readiness review teams and gave them a teacher-prepared review protocol clarifying what students needed to know and understand for the test. Students took part in a Teams-Games-Tournaments review, studying in mixed readiness teams, and participating in the games portion of the review at similar readiness tables. This allowed the teacher to adjust questions to an appropriate challenge level for individual students, but still enabled all students to earn points for right answers for their study team. When students took their chapter test, there were several short answer questions that all students were required to answer. One set of students, however, had an essay question closely related to their own experience and to the class discussions. Another set of students had a question requiring them to venture further into unexplored applications.

Expanding the Study

To move from specifics about the Industrial Revolution to a broader application of key understandings, students selected one of ten “modern revolutionary” figures to investigate as a way of seeing how people affect revolution. The students worked independently for a day and then formed a cluster with other students who selected the same revolutionary figure. They decided how their cluster should show what a revolutionary figure does. The cluster groups could decide to make a caricature, create a blueprint for a revolutionary, draft a reference book entry on what a revolutionary is and does, or act out their response. In most classes, there were six or seven cluster groups. After preparing the product, each cluster group gave one presentation to 2–3 other cluster groups. Finally, Ms. Largent led the class in making a list of generalizations about how revolutionaries affect change.

Next, some students used excerpts from either Katherine Paterson’s novel Lyddie or Harriette Arnow’s novel The Dollmaker (both set in the Industrial Revolution — the former written at a relatively basic reading level, the latter at a more advanced reading level) to investigate how revolution affects individuals and how individuals affect revolution. Ms. Largent assigned students to one of four groups based largely on her assessment of student readiness in reading, abstractness of thinking, and independence in research. In some instances, however, she placed students
in groups based on learning style needs (e.g., students who might need to hear rather than read passages).

One group listened to a tape of key passages from *Lyddie*, distilling how and why the main character became first a factory worker, then an organizer for better working conditions. They then worked in pairs on the computer to create a time line of data and events demonstrating how the character was initially affected by events in a revolution and then came to affect events in that revolution.

A second group read specified portions of *Lyddie* and a folder of articles on current factory conditions in developing countries. Their task was to work in groups of three to produce an authentic conversation between Lyddie and two fact-based fictional characters from contemporary sweat shops in which the three shared problems, dreams, and a plan of action.

A third group listened to excerpts from *The Dollmaker*. They then selected a partner from their group and investigated benefits to contemporary society that can be traced to the Industrial Revolution. Working with their partners, they created a written or made-for-TV editorial on the proposition that the cost of the Industrial Revolution was (or was not) worth its benefits.

A fourth group read designated excerpts from both *Lyddie* and *The Dollmaker*. They then researched the current computer revolution and used what they learned to create one of three products: (1) a series of comparative editorial cartoons based on the Industrial Revolution and the computer revolution, (2) a computer revolution version of an episode paralleling *Lyddie* or *The Dollmaker*, or (3) a TV newsmagazine style segment on how the computer revolution is affecting people and how people are affecting the computer revolution. Students in the TV newsmagazine group will need more time to complete their work, but will periodically work on this task rather than doing homework and classwork that focuses on skills and information they have already mastered.

**Applying What Has Been Learned**

At the end of the Industrial Revolution study, all students will select someone who revolutionized a field of interest to them (e.g., women’s rights, sports, medicine, aviation, civil rights, physics, music, their own community). Each student will complete a product called “Dangerous Minds: Understanding People Who Revolutionize the World.” There are two versions of the product assignment. One is more transformational, abstract, open-ended, and complex than the other in content, process,
production, and rubrics. Ms. Largent’s goal in assigning a given version of the product to a particular student is to push that student a bit further than he is comfortable going in knowledge, insight, thinking, planning, research, use of skills, and production. All students must demonstrate an understanding of the key concepts and generalizations for the unit, and appropriate application of the unit’s key skills.
Your task is to analyze the lesson examples on the videotape and identify examples of how they apply the principles of differentiated instruction that are listed on Handout 6 and then complete the analysis matrix.

- Read over Handout 6 to familiarize yourself with the principles of differentiation listed on the matrix and with the instructions for completing the matrix.

- To avoid distracting the group working on another task, turn the TV screen away from the other group, move your chairs close to the TV, and lower the volume so it will not disturb the other group. Then quietly watch Segment 1 of the videotape again.

- As you watch the video segment, independently jot down your thoughts on the matrix.

- Work as a single small group, or in pairs or triads, to discuss and complete the matrix.
Below are some strategies that can be used to differentiate content, activities, and products in mixed-ability classrooms. As you read and think about them, add other strategies to the lists.

<table>
<thead>
<tr>
<th>Content</th>
<th>Activities</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>• tape-recorded text material</td>
<td>• activity choice boards</td>
<td>• tiered products</td>
</tr>
<tr>
<td>• reading buddies</td>
<td>• varied journal prompts</td>
<td>• student choice of mode of demonstrating learning</td>
</tr>
<tr>
<td>• multiple texts</td>
<td>• tiered activities</td>
<td>• interest-based investigations</td>
</tr>
<tr>
<td>• multiple supplementary materials</td>
<td>• multilevel learning center tasks</td>
<td>• independent study</td>
</tr>
<tr>
<td>• small-group direct instruction</td>
<td>• similar readiness groups</td>
<td>• varied rubrics</td>
</tr>
<tr>
<td>• varied graphic organizers to support reading comprehension</td>
<td>• mixed readiness groups with targeted roles for students</td>
<td>• criteria for success generated by or for individuals</td>
</tr>
<tr>
<td>• interest-based minilessons</td>
<td>• student choice of work arrangement (e.g., work alone or with partner, sit on floor or at a desk)</td>
<td>• mentorships</td>
</tr>
<tr>
<td>• compacting</td>
<td>• learning contracts</td>
<td>• ____________________________</td>
</tr>
<tr>
<td>• multilevel computer programs</td>
<td>• ____________________________</td>
<td>• ____________________________</td>
</tr>
<tr>
<td>• ____________________________</td>
<td>• ____________________________</td>
<td>• ____________________________</td>
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<tr>
<td>• ____________________________</td>
<td>• ____________________________</td>
<td>• ____________________________</td>
</tr>
</tbody>
</table>

**Association for Supervision and Curriculum Development**
Below are four task cards designed for 2nd grade students. Read the task cards a couple of times. The task cards are arranged from most basic (Pioneer Group) to most complex (Adventurer Group). Use the language on Handout 11 to help you figure out how the teacher who created them might have thought about increasing the complexity of the tasks while still retaining many similarities among the tasks.

### Pioneer Group

(Work alone or in groups of 2, 3, or 4)

1. Use books, pictures, and the CD-ROM to
   a. Figure out what a trading post was for.
   b. Make a list of things found in a trading post and how much they may have cost. Be sure to include some things we don’t have in our stores today.
   c. Figure out who used trading posts.
   d. Find out where goods for a trading post came from.
2. Build or draw a trading post and a modern convenience store.
3. Compare and contrast the trading post and convenience store on at least the four categories identified in questions 1a–1d.
4. Be ready to share with the class what a trading post and convenience store tell us about how we are like and different from the pioneers.

### Trailblazer Group

(Work alone or in groups of 2 or 3)

1. Read *Going West* (stop at the bookmark). Also use the encyclopedia, CD-ROM, and books in the exploration center to
   a. Learn about the size of a covered wagon and figure out how many people and supplies it would hold.
   b. Find out how covered wagons were built and how they work.
   c. Find out the positives and negatives of going west in a covered wagon.
   d. Figure out how much a covered wagon might cost and why it cost so much — for example, costs for materials, labor, and horses.
   e. Learn what pioneers took in the covered wagons, what they left behind, and why.
2. Build or draw a model of a covered wagon used in pioneer days and a station wagon or van used today.
3. Compare and contrast the two vehicles on at least the five categories listed in questions 1a–1e.
4. Be ready to share with the class what a covered wagon and a station wagon (or van) tell us about how we are like and different from the pioneers.
**Handout 10—Continued**

<table>
<thead>
<tr>
<th>Wagoneer Group</th>
<th>(Work alone or in groups of 2 or 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use books and records in the exploration center, plus encyclopedias and the CD-ROM to learn about leisure and recreation during pioneer times. Select <em>at least</em> four categories from this list or add categories of your own (with teacher approval): songs, games, dances, literature, gatherings, contests, crafts. In each category you select, be ready to fully illustrate an example of “then” and a contrasting example from “now” to show the class how we are like and different from the pioneers in what we do for recreation (and why).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adventurer Group</th>
<th>(Work alone or in pairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use books in the exploration center, the article in the Medicine West folder, encyclopedias, and the CD-ROM to find out what the medical problems were during the westward movement and what the practice of medicine was like. Figure out important questions to ask and answer in order to compare and contrast health problems and the practice of medicine then and now. Get your categories and questions approved by the teacher. Figure out a way to help the class see how we are like and different from the pioneers in health issues and the practice of medicine.</td>
<td></td>
</tr>
</tbody>
</table>
The continuums (see next page) are drawn to look like the tuners or equalizers on a stereo or CD player. They “slide” from left to right. On the left, the button indicates a lower “degree of difficulty.” On the right, the “degree of difficulty” is greater. The goal in a differentiated activity or task is to set the buttons in a range of optimal challenge for a learner. Most differentiated tasks will reflect several continuums, but not all of them.

All tasks in a differentiated class should be respectful (interesting, engaging, and focused on essential and powerful ideas and skills). A task that challenges a learner who is very advanced in a particular area will likely need to be more abstract, complex, and open-ended than a related task that challenges a learner who is currently struggling in that area. Although the tasks may be at different positions on the continuums, they will still be challenging to individual learners.

The pace continuum is less predictable. Sometimes an advanced learner does need to move quickly through easily mastered material, but sometimes that learner needs to slow down to allow for depth of study. Sometimes a struggling learner just needs a little more time on a topic, at other times it is best for that learner to deal only with essentials in a complex study and move on.

You may find it useful to refer to the equalizer as you create appropriately challenging learning tasks for the academically diverse learners in your class(es).
## The Equalizer

<table>
<thead>
<tr>
<th>Foundational</th>
<th>Transformational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information, Ideas, Materials, Applications</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concrete</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representations, Ideas, Applications, Materials</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Simple</th>
<th>Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources, Research, Issues, Problems, Skills, Goals</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Few Facets</th>
<th>Many Facets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disciplinary Connections, Directions, Stages of Development</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Small Leap</th>
<th>Greater Leap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications, Insight, Transfer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>More Structured</th>
<th>More Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solutions, Decisions, Approaches</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clearly Defined Problems</th>
<th>Fuzzy Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process, Research, Products</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Less Independence</th>
<th>Greater Independence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning, Designing, Monitoring</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Slower</th>
<th>Quicker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pace of Study, Pace of Thought</td>
<td></td>
</tr>
</tbody>
</table>
Working independently, develop a tiered lesson activity that you might use with your students.

- It should have two, three, or four tiers based on different readiness levels.
- It should also ensure that all learners are working with the same key understandings and all are working with interesting and respectful tasks.

Be ready to share the tiered tasks with others in the large group, and to use the language of “The Equalizer” (Handout 11) to talk about why some tiers are more advanced than others.
The following grid was developed for upper-elementary students to use in understanding similarities and differences in the way they and their peers learn. Some items on the grid are just for fun. Most, however, ask about student interest or learning profile. Students used the grid as an ice-breaker early in the year by trying to get two signatures from classmates who fit the description in each square. Next, the teacher led a discussion about people who have similar and different interests and ways of learning in the class. She then gave a clean grid to each student, asking that child to put their name in any block that was very important about them. The teacher used the grids as a way to start learning about the interests and learning profiles of her students.

<table>
<thead>
<tr>
<th>Howdy Do!</th>
<th>Goal: Two signatures per square before time is called. Caution: Can’t sign more than twice on any person’s grid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep a Journal</td>
<td>Like Planning Things</td>
</tr>
<tr>
<td>Wear Braces</td>
<td>Like to Work in Groups on School Work</td>
</tr>
<tr>
<td>Write Songs or Compose Music</td>
<td>Need Quiet Time by Myself</td>
</tr>
<tr>
<td>Strong Leader</td>
<td>Collect Something (What?)</td>
</tr>
<tr>
<td>Learn Best by Listening</td>
<td>In-line Skater</td>
</tr>
</tbody>
</table>
Your Task

Using the sample grid to help you get ideas, design a similar device in the box below that would help you find out important information from your students about their interests and ways of learning.
Cubing is a strategy designed to help students think about a topic or idea from many different angles. Cubes help students avoid “flat” thinking — thinking that is one dimensional and lacks elaboration.

A cube includes six commands — one on each of its six faces — followed by a prompt that describes the task the student should do related to the command.

**Command:** DESCRIBE  
**Prompt:** Describe the rainforest using as much information as you can, and involving as many of your senses as possible in your description.

**Command:** DIAGRAM  
**Prompt:** Diagram the relationship between human use of the rainforest and the positives and negatives that come from that use.

There are many different thinking commands that can go on a cube (e.g., apply, connect, argue, evaluate).

Cubes can be used to differentiate activities on the basis of student readiness. For example, using two or more cubes with the same commands, modify the prompts, or tasks, so they are at different levels of difficulty. The prompt for the previous “describe” example could be modified for a higher degree of difficulty: Describe how your life would change if you moved to the canopy of the rainforest, using as much information as you can about the canopy, involving as many of your senses as possible in your description, and being sure to explain why these changes would take place.

Cubing is a great way to differentiate an activity based on student interest or learning profile. You might want to have multiple cubes to use in a single review activity. You might decide to keep two or three faces the same on all versions of the cube (e.g., list, describe, analyze). One of the cubes, however, might have the remaining faces designed for students who like writing: make a limerick, write a journal entry, create a pun. Another cube might work better for more oral learners: tell a story, present an argument for or against, write or present a song. A third cube might be designed for students with visual or spatial strengths: make a model, draw a sketch, make a Venn diagram with images rather than words. Students might then be assigned to tables with cubes that are most appropriate for their learning needs. Each student rolls the cube a designated
number of times, and the face that points up on each roll becomes a task for that student to complete.

**Your Task**

Using the blank template of the cube on the next page of this handout, create two or three cubes that will allow all your students to think about or explore one important topic or idea, but in their preferred learning modes. (The facilitator will have extra blank templates for your use.) Be ready to share what you’ve created with all or part of the larger group.
1. **Differentiating instruction is not a new idea.**

   Teachers have always worried that some students have serious gaps in their learning and some others spend too much time rehashing what they already know. Visions of student anxiety and student boredom accompany teachers home on most nights. Over the years, teachers have developed many approaches to addressing student differences in classrooms that seem always to contain too many students and too few resources: separate reading or math groups, individualized instruction, individual education plans, compacting, and peer tutoring are just a few. Our quest to refine our capacity to address student differences will likely continue as long as there are schools. The approach to differentiating instruction reflected in this program is a step in that pilgrimage.

2. **“One-size-fits-all” instruction is not a good fit for many learners in an academically diverse classroom.**

   In most classrooms, students vary widely in readiness, from those who struggle greatly with all or part of a subject to those whose understandings and skills greatly exceed grade-level expectations. Further, students vary in what interests them and in their learning profiles (e.g., learning style, learning patterns influenced by culture and gender, and intelligence preference). Matching learning opportunities to readiness level helps ensure that students master key skills and understandings rather than glossing over them, and that students continue to progress in skills and understandings rather than repeating them. Matching learning opportunities to student interests increases the likelihood that a student sees school as relevant, and that a student finds and develops passions for learning and personal talent areas. Matching learning opportunities to learning profiles maximizes efficiency and effectiveness of learning for individuals.

3. **Teachers in appropriately differentiated classrooms continually study their students.**

   Both formally and informally, teachers seek opportunities to understand various students’ “points of entry” into topics and skills, what individual students like both in and out of school, and the sorts of learning environments and conditions in which various students succeed. Assessment is no longer something that comes at the end of a unit to see who learned what. In a differentiated classroom, assessment is a continual reading of vital signs related to readiness.
levels, interests, and learning profiles of each student for the purpose of better understanding today how to modify tomorrow’s instruction.

4. **Good teaching is predicated upon a teacher’s clarity about what a learner should know, understand, and be able to do as a result of a given learning experience and set of learning experiences.**

Teachers do our best teaching when we are clear about the essential information, understandings, and skills that a student must develop during each lesson and unit. That information, those understandings, and those skills are the ones that build the framework of a subject. Brain research (not to mention common sense and experience) tells us that learners cannot remember everything about a topic over an extended period of time. Therefore, teachers must identify essential concepts, essential principles, and essential skills — carefully building lessons that cause learners to grapple with those essentials until they “own” them.

5. **In an appropriately differentiated classroom, all learners focus much of their time and attention on the key concepts, principles, and skills identified by the teacher as essential to growth and development in the subject — but at varying degrees of abstractness, complexity, open-endedness, problem clarity, and structure.**

All learners should work with the key ideas and skills that build toward understanding the subject and proficiency in the subject. Some learners need to work with those ideas and skills at a concrete level — using manipulatives, diagrams, or other devices that allow them to experience the idea in a clear, specified, guided, and tangible way. Other learners are ready to work with the ideas and skills at a greater level of abstractness, in fuzzier problems, and with minimal structure and guidance. It is often not the ideas and skills that will vary with readiness in a differentiated classroom, but rather the degree of difficulty or complexity in the way students interact with the ideas and skills.

6. **In an appropriately differentiated classroom, all learners should work with “respectful tasks.”**

In working with the essential understandings and skills of the subject, all students should be offered tasks that encourage them to think at high levels of thinking. All students should have consistent opportunities to be active learners. All students should consistently have equally interesting and engaging tasks to do. All students should work with a wide variety of peers over time. All students
7. **An appropriately differentiated classroom offers different routes to content, activities, and products in response to differing learner needs.**

A teacher in a differentiated classroom constructs different avenues to

- content — what students learn;
- activities — opportunities through which students process, or make sense of, understandings and skills; and
- products — how students demonstrate and extend what they have learned.

Sometimes options for learning tasks are based on teacher assessment of student readiness, and are carefully targeted to specific students. At other times, student interests lie at the heart of the options. Often teachers provide students with learning profile choices such as working with a group or alone, or expressing learning through visual or oral means. Sometimes the class works as a whole with a single task or discussion.

8. **Flexible grouping of students enables all learners to work in a wide variety of configurations and with the full range of peers, while targeting specific learning needs.**

In a flexibly grouped classroom, students sometimes work with peers of similar readiness so that the teacher can target the complexity of the task to student needs or target tasks by similar interest and learning profile. At other times, students work in mixed readiness or interest groups with tasks that enable all students to play essential roles in the group’s success. Sometimes the whole class works as a unit. At other times, students work independently. Sometimes the teacher selects student groups and working conditions, at other times, students make these choices. Within a few days, a student in such a class may have worked in four or five different group arrangements, and with many or most of the students in the class. Flexible grouping enables teachers to “audition” students in varied settings and roles,
and ensures that we have not moved from tracking outside the regular classroom to tracking inside the regular classroom.

9. **Learning to effectively differentiate instruction in academically diverse classrooms is complex and requires support for teachers over extended periods of time.**

   Some teachers already orchestrate vigorously differentiated classrooms. For most of us, however, developing and refining the skills of differentiation is complex, uncertain, and carries an initial price tag of discomfort and added effort. Change of this nature takes time and requires consistent support. Teachers may need assistance in (a) developing a sound rationale for differentiation, (b) identifying and understanding the needs of diverse learners, (c) preparing students and parents for differentiated classes, (d) managing a differentiated classroom, (e) identifying key understandings and skills in their subjects, (f) applying principles of differentiation, (g) using instructional strategies that facilitate differentiation, and (h) steps in beginning to implement differentiation. Certainly teachers need training in these areas. They also need assurance from the administration that they will be valued more for attempting positive change (even when early attempts are imperfect) than for preserving the status quo. Teachers need time for planning, support for in-classroom coaching, and time to visit and work with other teachers who are pursuing differentiated instruction. Policymakers also need to help teachers reconcile the call for responsive and flexible classrooms with practices that discourage responsiveness and flexibility — for example, rigid report cards, fragmented time blocks, and overemphasis on standardized testing. Like students, teachers are a diverse group. They, too, need a differentiated approach to learning and growing along with supportive, responsive environments. The positive possibilities that could stem from growing numbers of differentiated classrooms are immense. Like most worthwhile endeavors, this one is challenging and should be undertaken with awareness of both the price tags and the payoffs.

10. **Differentiation is not a license to eliminate specialists, but rather an opportunity for specialists and generalists to collaborate in ways that focus their combined skills on improving instruction in the regular classroom.**

   It would be difficult, if not impossible, for a regular classroom teacher to develop all of the insights that have come to a specialist in learning disabilities through years of training and experience, to
develop and skillfully employ the diagnostic and prescriptive strategies used by a remediation specialist, and simultaneously to quickly achieve the advanced content knowledge, comfort with heuristic techniques, and sense of expert-level production requirements used by a specialist in gifted education. To ask a general classroom teacher to master the skills of managing a differentiated classroom is no small request — add to that the expectation that the generalist also become a specialist in several other well-established facets of educational practice is asking too much. Differentiation will work best when time and support are provided for a team of educators — special educators, educators of the gifted, remediation experts, librarians, guidance counselors, and others — to collaborate in reconfiguring classrooms and redesigning curriculum in ways that draw on the expertise of each participant in the planning process. In a best case instance, a remediation specialist, for example, enters the regular classroom not just to work with four struggling learners but to be a part of looking at ways in which the content and operation of the classroom can become more responsive to all learners.
Please complete each column as directed to help you link your teaching experiences with those presented in the video program.

<table>
<thead>
<tr>
<th>Describe varying learner needs in your classroom.</th>
<th>Check any strategy in the list below that you regularly use to modify instruction for students with differing learning needs. Add strategies you use that are not listed below.</th>
</tr>
</thead>
</table>
|        | ❑ independent study  
|        | ❑ compacting  
|        | ❑ reading buddies  
|        | ❑ tiered activities  
|        | ❑ tiered products  
|        | ❑ learning contracts  
|        | ❑ anchoring activities  
|        | ❑ differentiated learning centers  
|        | ❑ adjusting questions  
|        | ❑ flexible grouping  
| Others: |                                                                
|        |                                                                 |
|        |                                                                 |
|        |                                                                 |
| Select one strategy you use to differentiate instruction. Name it on the line below. | List benefits you’ve found in using the strategy. |
|        | List concerns or problems you have found in using the strategy. |
Use these questions to reflect on ideas presented in the video.

1. Based on what you saw in the videotape, why might these teachers find it worth their time and effort to differentiate instruction based on student readiness, interest, and learning profile?

2. How are the roles of the teacher, the students, the curriculum, and instruction different in these classes than in more “typical” or “traditional” classes?

3. What specific instructional and management strategies do the teachers on the video use in their classes? How do the particular strategies facilitate differentiation of curriculum and instruction in response to needs of academically diverse learners?
4. What are some issues or problems of setting up and managing a differentiated classroom? How do you suppose the teachers shown in the videotape handle(d) these issues or problems?

5. What are some factors in your classroom, school, and district that make it difficult to differentiate instruction? How do you suppose the teachers in the video have dealt with those factors?
In one balloon below, jot down several elements in your teaching or classroom environment that you are pleased with when you think of the range of academic needs you encounter daily. In the other balloon, jot down a couple of elements in your teaching or classroom environment that you would like to alter so you could better address the range of academic needs reflected in your students.
The following instructional and management strategies are featured on the videotape. As you watch the program, jot down any observations and ideas about the strategies that you might want to reflect on later.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Observations and Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring Activities</td>
<td></td>
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<tr>
<td>Adjusting Questions</td>
<td></td>
</tr>
<tr>
<td>Tiered Assignments</td>
<td></td>
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<tr>
<td>Learning Contracts</td>
<td></td>
</tr>
<tr>
<td>Strategy</td>
<td>Observations and Ideas</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Reading/Study Buddies</td>
<td></td>
</tr>
<tr>
<td>Compacting</td>
<td></td>
</tr>
<tr>
<td>Flexible Grouping</td>
<td></td>
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<tr>
<td>Differentiated Learning</td>
<td></td>
</tr>
<tr>
<td>Centers</td>
<td></td>
</tr>
<tr>
<td>Independent Study</td>
<td></td>
</tr>
</tbody>
</table>
Complete the chart below as a way of comparing and contrasting the nature of key elements in a differentiated classroom and a more traditional, or typical, classroom.

<table>
<thead>
<tr>
<th>Nature of</th>
<th>In a Traditional Class</th>
<th>In a Differentiated Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Teacher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Use the ideas, examples, and guidelines below to help you develop some sets of questions that you might use with academically diverse learners in your class.

**Example A**

Ms. Morgan is discussing Maurice Sendak’s *Where the Wild Things Are* with her 1st graders. Some of her students think quickly and easily about meanings in stories. Others have more difficulty with that sort of thinking. Therefore, Ms. Morgan asks a variety of questions during discussions so that all her students can work at a level of difficulty that is personally challenging.

She does not want to ask some students “right answer” questions and others “thought” questions.

She does not want to ask some students fewer questions and some more questions.

What she does want to do is pose two or three questions about the meaning of the story so that all students can grapple with its meaning in a way that makes sense to them and challenges them.

She wants all of her students to think about the idea that our imaginations can take us to all sorts of fascinating places and can help us solve problems. Therefore, she will pose a series of questions along that line. Some of the questions are concrete and some are more abstract. All of the questions encourage students to think about the same key idea in the story.

For basic learners:

- What do I mean when I say Max took a trip in his imagination?
- How did his imagination help him to take that trip?

For more advanced learners:

- Tell me about a time when you’ve taken a trip in your imagination?
- How did your imagination help you to take that trip?
For the most advanced learners:

- How do you think Mr. Sendak knows about trips we can take in our imaginations?
- What do you think would happen if people couldn’t imagine things?

**Example B**

Ms. Patterson is working with her 5th grade students to examine structure and function in architecture. She wants them to understand the relationship between the two — and the relationship of technology to both structure and function. She is planning questions that students will answer as an in-class, miniresearch activity.

She does not want to ask some students questions to which they can look up the answers and other students questions to which they have to infer answers.

What she does want to do is ask all students a question that requires them to analyze the relationship between structure, function, and technology in architecture. All students will do research, find information, draw conclusions, and present their insights in the form of a model, drawing, diagram, or written presentation.

She has designed four questions that increase in complexity, in spite of their obvious similarities.

- In what ways are structure, function, and technology related in igloos?
- In what ways are structure, function, and technology related in cathedrals?
- In what ways are structure, function, and technology related in skyscrapers?
- In what ways are structure, function, and technology related in a space capsule’s living quarters?

**Example C**

Mr. Phillips is working today with his German I students in oral expression. He will pose questions to them that they must answer aloud and with little time for reflection. His students range from those who have great difficulty with grammar and oral expression to those who anticipate new grammatical constructions from previous ones.
He does not want to ask some questions that can be answered with a single word or phrase and others that require complete thoughts and sentences.

What he does want to do is encourage all students to use a range of grammatical constructions at levels of appropriate challenge.

He will pose different questions to various individuals as a way of challenging their oral expression, with particular emphasis on verb tenses. The questions become more open ended, more abstract, require greater leaps of mind, and grow more complex.

• Whom should I ask about directions to your favorite restaurant from school and what advice would they give me about how to get there and the length of time it would take?

• Whom should I ask about the way things were here at school before the new wing was added and what do you think that person or those people would tell me about then and now?

• What important responses would you give if someone asked you to give them advice about raising a child from birth to the time they leave home so that the child has the greatest chance for happiness and success?

Your Task

Work alone or with someone who teaches the same grade or subject to develop one or more sets of questions at varying “degrees of difficulty.”

Be sure your questions do

• Require all students to focus on essential ideas (generally the same idea).

• Require all students to function at a high level of challenge (for the individual) in application of skills.

• Require all students to think at high levels.

Be sure your questions do not

• Require more answers from some students and fewer answers from others.

• Ask for repetition and regurgitation from some students and thought from others.
Your question sets may be for discussion, for a test, for research, or for another purpose you identify.

You may want to use the language on Handout 9 (The Equalizer) as a means of monitoring the degree of difficulty within a set of questions, and later as a means of explaining to others in the group how you thought about developing or refining your questions.
Background

Mr. Craig likes to use learning contracts four or five times a year with his 3rd graders — usually lasting 5–10 days for one subject a day. The math contract here has four elements.

1. A Skills Component
   - Focus is on skills-based tasks
   - Assignments are based on pre-assessment of students’ readiness levels
   - Students work at their own level and pace

2. A Content Component
   - Focus is on applying, extending, or enriching key content (ideas, understandings)
   - Requires sense making and production
   - Assignment based on readiness or interest

3. A Time Line
   - Teacher sets completion date and check-in requirements
   - Students select order of work (except for required meetings and homework versus classwork)

4. The Agreement
   - The teacher agrees to let students have freedom to plan their time
   - Students agree to use the time responsibly
   - Guidelines for working are spelled out
   - Consequences for ineffective use of freedom are delineated
   - Signatures of the teacher and student are placed on the agreement
Sample Contracts

On the following pages are math contracts used by Mr. Craig’s 3rd graders. The contracts are designed for different readiness levels. Here are a few things to note while looking at them.

- The contracts look a great deal alike.

- The work noted in a given wedge of one contract parallels a wedge in each of the other versions.

- The work in the green contract is more complex (advanced) than the work in the red contract — and the work in the blue contract is most advanced and complex of all.

- The circle portion (skills component) and the square portion (content component) are usually on separate pages so that a student who is less advanced in math, but stronger in reading and writing, might receive a red circle and a green square.

Your Task

Begin to sketch out a differentiated contract for your students, using this model — or one you prefer.
Handout 22—Continued

The Red Contract

Key Skills: Graphing and Measuring
Key Concepts: Relative Sizes

Read  Apply  Extend

How Big is a Foot?  Work with a friend to graph the size of at least 6 things on the list of “10 terrific things.” Label each thing with how you know the size.  Make a group story — or one of your own — that uses measurement and at least one graph. Turn it into a book at the author center.

Note to User: This is a Grade 3 math contract for students below grade level in these skills.
**The Green Contract**

**Key Skills:** Graphing and Measuring  
**Key Concepts:** Relative Sizes

*Note to User:* This is a Grade 3 math contract for students at or near grade level in these skills.

---

**Read**

- *Alexander Who Used to Be Rich Last Sunday*
- *Ten Kids, No Pets*

**Apply**

Complete the math madness book that goes with the story you read.

**Extend**

Now, make a math madness book based on your story about kids and pets or money that comes and goes. Directions are at the author center.
**Handout 22—Continued**

**The Blue Contract**

**Key Skills:** Graphing and Measuring  
**Key Concepts:** Relative Sizes

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<table>
<thead>
<tr>
<th>Read</th>
<th>Apply</th>
<th>Extend*</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Dinosaurs Before Dark</em> or <em>Airport Control</em></td>
<td>Research a kind of dinosaur or airplane. Figure out how big it is. Graph its size compared to your size on graph paper or on the blacktop outside our room. Label it by name and size.</td>
<td>Make a book in which you combine math and dinosaurs or airplanes, or something else big. It can be a number fact book, a counting book, or a problem book. Instructions are at the author center.</td>
</tr>
</tbody>
</table>

*Remember, you can propose an extension of your own.*

---

*Note to User:* This is a Grade 3 math contract for students advanced in these skills.
**Setting Up a Differentiated Classroom**

Please respond to the questions below to help us think about establishing differentiated classrooms.

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What concerns might students have in a newly differentiated classroom?</td>
<td>What solutions would you pose?</td>
</tr>
<tr>
<td>2. What classroom routines and guidelines would you need to establish as differentiation begins?</td>
<td></td>
</tr>
<tr>
<td>3. How might you handle grading in a differentiated classroom?</td>
<td></td>
</tr>
<tr>
<td>4. What concerns might parents have about a newly differentiated classroom?</td>
<td>How might you help them understand potential positives of differentiation for their child?</td>
</tr>
</tbody>
</table>
**Background**

Learning centers are used in various ways by teachers. Often they are a means of either encouraging student exploration of a topic or providing practice with a skill. Sometimes they are used for both; for example, writing a poem (skill) about a famous person (topic).

It is difficult to have a learning center with a single set of instructions that appropriately challenges all students in an academically diverse class. Differentiated centers allow all students to work with the same key ideas and skills, but at different “degrees of difficulty.”

**A Case in Point**

Ms. Jensen’s kindergartners are studying the concept of changes in the season (moving into autumn) and the skill of classifying. At the science center today, some students did the “yellow” work and some did the “red” work. Those who did the yellow task classified student-collected leaves by size, shape, and color. Those who did the red work classified them by number of points on the leaves, arrangement of the veins, and a category they made up. Both sets of learners had a hands-on, classification task of student-collected artifacts. The skills called for in the red task, however, are more advanced in counting and observation of fine patterns. Based on her assessment of student readiness in these areas, Ms. Jensen is able to assign learners to an appropriately challenging task and use what she observes today to help her plan for tomorrow.

**Your Task**

Your job is to create a learning center for a designated grade or class, on a designated topic and skill, and on at least two levels of difficulty. Be sure all tasks are focused on similar, important ideas and skills — but are at differing “degrees of difficulty.”

The workshop facilitator has copies of a reading on learning centers that you may want to use as a reference.
**Background**

Independent study is often associated with advanced learners. These students often benefit from such explorations that allow them to (1) be freed from work they already know, (2) explore a relevant topic in depth, and (3) enhance their skills as independent learners.

On the other hand, all learners need to grow toward independence — they are just at different points along the journey. In a differentiated classroom, a teacher attempts to provide the right balance of independence and structure appropriate for a given student — knowing that for some students that means more independence and less structure, and for others, the opposite.

The workshop facilitator has copies of an article on the use of independent study in a differentiated classroom. Read “Independent Study: A Flexible Tool for Encouraging Academic and Personal Growth,” by Carol Ann Tomlinson, to see if it reinforces or extends your thinking.

**Your Task**

Work to sketch out an independent study plan for one student or several students in your class. For a highly independent learner, you may want to develop a skeletal framework that notes at least the following key points: the student should raise his own research questions, note key resources, develop a time line, suggest a final product, and propose criteria for success. For a less independent student, you may need to offer research questions from which the student would choose, have required resources, present a time line that the student would follow, offer product options, and delineate criteria for success.

Develop a framework for an independent study, with guidelines for completing an independent study, a letter to parents explaining the independent study — or whatever vehicles would aid you and some of your students in effectively using this instructional strategy.
### Instructional and Management Strategies for Differentiated Classrooms

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description of Strategy</th>
<th>Rationale for Use</th>
<th>Guidelines for Use</th>
</tr>
</thead>
</table>
| Compacting        | A 3-step process that (1) assesses what a student knows about material to be studied and what the student still needs to master, (2) plans for learning what is not known and excuses student from what is known, and (3) plans for freed-up time to be spent in enriched or accelerated study. | • Recognizes large reservoir of knowledge in some learners  
• Satisfies hunger to learn more about more topics than school often allows  
• Encourages independence  
• Eliminates boredom and lethargy resulting from unnecessary repetition of material                                                                 | • Explain the process and its benefits to students and parents  
• Pre-assess learner’s knowledge and document findings  
• Allow student choice in use of time “bought” through previous mastery  
• Use written plans and time lines for accelerated or enrichment study  
• Can use group compacting for several students |
| Independent Study | Process through which student and teacher identify problems or topics of interest to the student. Both student and teacher plan a method of investigating the problem or topic and identifying the type of product the student will develop. This product should address the problem and demonstrate the student’s ability to apply skills and knowledge to the problem or topic. | • Builds on student interest  
• Satisfies curiosity  
• Teaches planning and research skills at advanced levels  
• Encourages independence  
• Allows work with complex and abstract ideas  
• Allows long-term and in-depth work on topics of interest  
• Taps into high motivation | • Build on student interest  
• Allow the student maximum freedom to plan, based on student readiness for freedom  
• Provide guidance and structure to supplement student capacity to plan and to ensure high standards of production  
• Use preset time lines to zap procrastination  
• Use process logs to document the process involved throughout the study  
• Establish criteria for success |

<table>
<thead>
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<th>Strategy</th>
<th>Description of Strategy</th>
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</thead>
</table>
| Interest Centers or Interest Groups           | Interest centers (often used with younger learners) and interest groups (often used with older learners) can provide enrichment for students who demonstrate mastery and competence with required work and can be a vehicle for providing these students with meaningful study when required assignments are completed. In addition, all learners enjoy and need the opportunity to work with interest centers or groups in order to pursue areas of special interest to them. These centers or groups can be differentiated by level of complexity and independence required, as well as by student interest, to make them accessible and appropriately challenging for all learners. | • Allows student choice  
• Taps into student interest—motivating  
• Satisfies curiosity—explores hows and whys  
• Allows study of topics not in the regular curriculum  
• Can allow for study in greater breadth and depth  
• Can be modified for student readiness  
• Can encourage students to make connections between fields of study or between study and life | • Build on student interest  
• Encourage students to help you develop interest-based tasks  
• Adjust for student readiness  
• Allow students of like interests to work together  
• Develop clear (differentiated) criteria for success  
• For advanced learners, allow long blocks of time for work, change centers less often to allow for depth of study, make certain tasks are challenging |
| Tiered Assignments                            | In a heterogeneous classroom, a teacher uses varied levels of activities to ensure that students explore ideas at a level that builds on their prior knowledge and prompts continued growth. Student groups use varied approaches to explore essential ideas. | • Blends assessment and instruction  
• Allows students to begin learning where they are  
• Allows students to work with appropriately challenging tasks  
• Allows for reinforcement or extension of concepts and principles based on student readiness  
• Allows modification of working conditions based on learning style  
• Avoids work that is anxiety-producing (too hard) or boredom-producing (too easy)  
• Promotes success and is therefore motivating | • Be sure the task is focused on a key concept or generalization essential to the study  
• Use a variety of resource materials at differing levels of complexity and associated with different learning modes  
• Adjust the task by complexity, abstractness, number of steps, concreteness, and independence to ensure appropriate challenge  
• Be certain there are clear criteria for quality and success |
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description of Strategy</th>
<th>Rationale for Use</th>
<th>Guidelines for Use</th>
</tr>
</thead>
</table>
| Flexible Grouping | Students are part of many different groups—and also work alone—based on the match of the task to student readiness, interest, or learning profile. Teachers may create skills-based or interest-based groups that are heterogeneous or homogeneous in readiness level. Sometimes students select work groups, and sometimes teachers select them. Sometimes student group assignments are purposeful and sometimes random. | • Allows both for quick mastery of information and ideas and the need for additional exploration by students needing more time for mastery  
• Allows both collaborative and independent work  
• Gives students and teachers a voice in work arrangements  
• Allows students to work with a wide variety of peers  
• Encourages teachers to “try out” students in a variety of work settings  
• Keeps students from being “pegged” as advanced or struggling  
• Keeps students from being cast as those in need of help and those who are helpers | • Ensure that all students have opportunities to work both with students most like themselves in readiness or interest, and with students dissimilar from themselves in readiness or interest  
• Teacher assigns work groups when task is designed to match individual readiness or interest based on pre-assessment or teacher knowledge  
• Teacher assigns work groups when desirable to ensure that students work with a variety of classmates  
• Students select groups when task is well-suited for peer selection  
• Alternate purposeful assignment to groups with random teacher or student selection  
• Ensure that all students learn to work cooperatively, collaboratively, and independently  
• Be sure there are clear guidelines for group functioning that are taught in advance of group work and consistently reinforced |
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description of Strategy</th>
<th>Rationale for Use</th>
<th>Guidelines for Use</th>
</tr>
</thead>
</table>
| Learning Centers | Learning centers can be “stations” or collections of materials learners use to explore topics or practice skills. Teachers can adjust learning center tasks to readiness levels or learning profiles of different students. | • Allows matching task with learner’s skills level  
• Encourages continuous development of student skills  
• Allows matching task with student learning profile  
• Enables students to work at appropriate pace  
• Allows teacher to break class into practice and direct instruction groups at a given time  
• Helps develop student independence | • Match task to learner readiness, interest, learning profile  
• Avoid having all learners do all tasks at all centers  
• Teach students to record their own progress at centers  
• Monitor what students do and what they understand at centers  
• Have clear directions and clear criteria for success at centers |
| Adjusting Questions | In class discussions, tests, and homework, teachers adjust the sorts of questions posed to learners based on their readiness, interests, and learning profile.                                                                 | • All students need to be accountable for information and thinking at high levels  
• Some students will be challenged by a more basic thought question  
• Others will be challenged by a question that requires speed of response, large leaps of insight, or making remote connections  
• Teachers can “try out” students with varied sorts of questions as one means of assessing student progress and readiness  
• Adjusting questions appropriately helps nurture motivation through success  
• In oral settings, all students can hear and learn from a wide range of responses | • Target some questions to particular students and “open the floor” to others  
• Use open-ended questions where possible  
• Use wait time before taking answers  
• When appropriate, give students a chance to talk with thinking partners before giving answers  
• Encourage students to build on one another’s answers  
• Require students to explain and defend their answers  
• Adjust the complexity, abstractness, degree of mental leap required, time constraints, and connections required between topics, based on learning profile of the student being asked a question |
<table>
<thead>
<tr>
<th>Strategy</th>
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</tr>
</thead>
</table>
| Mentorships/          | Students work with a resource teacher, media specialist, parent volunteer, older student, or community member who can guide their growth in a particular area. Some mentorships may focus on design and execution of advanced projects, some on exploration of particular work settings, some on affective development, and some on combinations of goals. | • Extends learning beyond the classroom  
• Makes learning a partnership  
• Can help students expand awareness of future options and how to attain them  
• Allows teachers to tap into student interest, strengths, and needs  
• Have a low teacher-to-learner ratio (often one-to-one)                                                                                     | • Match the mentor with the student’s needs (interests, strengths, culture, gender)  
• Be clear in your own mind and be specific about the goals of the collaboration  
• Make sure roles of mentor, student, teacher, and parent are written and agreed upon  
• Provide appropriate preparation and instruction for mentors, including key information about the student  
• Monitor the progress of the mentorship regularly and help problem solve if snags occur  
• Connect what is learned in the mentorship to what goes on in class whenever feasible                                                                                           |
| Apprenticeships       |                                                                                                                                                                                                                         |                                                                                                                                                                                                             |                                                                                                                                                                                                                      |
| Learning Contracts    | Learning contracts take a number of forms that begin with an agreement between student and teacher. The teacher grants certain freedoms and choices about how a student will complete tasks, and the student agrees to use the freedoms appropriately in designing and completing work according to specifications. | • Can blend skill- and content-based learning matched to student’s need  
• Eliminates unnecessary skill practice for students  
• Allows students to work at appropriate pace  
• Helps students learn planning and decision-making skills important for independence as learners  
• Allows teachers time to work with individuals and small groups  
• Can encourage extended study on topics of interest  
• Can foster research, critical and creative thinking, application of skills, and integrated learning                                                                 | • Blend both skill- and content-based learning in the contract  
• Match skills to readiness of the learner  
• Match content to readiness, interests, and learning profile of student  
• Allow student choice, especially in content-based portions of the contract  
• Establish clear and challenging standards for success from the outset  
• Provide rules for the contract in writing  
• When possible, focus the contract on concepts, themes, or problems, and integrate appropriate skills into required projects or products  
• Adjust levels of student independence and time span of the contract to match student readiness                                                                                         |
The biggest mistake of past centuries in teaching has been to treat all children as if they were variants of the same individual and thus to feel justified in teaching them all the same subjects in the same way.

— Howard Gardner
Objectives for Workshop 2

By the end of this session, participants will be able to

• Identify key features of an effectively differentiated classroom.

• Explain some of the key concepts and principles of differentiated instruction.

• Analyze differentiated learning tasks.

• Expand their repertoire of strategies for assessing student readiness, interest, and learning profile.

• Translate one or more key principles of differentiation into their own classrooms.
Analyzing Tasks Differentiated by Readiness

• Take a few minutes to read the Task Cards provided for you on Handout 10.

• Work with one partner to analyze why the various tasks escalate in difficulty, using the language on “The Equalizer” (Handout 11) to do so.

• Be ready to share your analysis of the tasks with others.
## Using Instructional and Management Strategies to Help with Differentiation

<table>
<thead>
<tr>
<th>Describe varying learner needs:</th>
<th>Strategies regularly used to differentiate instruction:</th>
<th>Benefits of using the strategies:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Independent study</td>
<td></td>
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<tr>
<td></td>
<td>Compacting</td>
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<td>Differentiated learning centers</td>
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<td>Adjusting questions</td>
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<td>Flexible grouping</td>
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<td>Others:</td>
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<td>Concerns or problems in using the strategies:</td>
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When a teacher tries to teach something to the entire class at the same time, "chances are, one-third of the kids already know it; one-third will get it; and the remaining third won’t. So two-thirds of the children are wasting their time."

— Lilian Katz

To learn a particular concept, “some children need days; some, ten minutes,” but the typical lockstep school schedule ignores this fundamental fact.

— Marilyn Hughes

Objectives for Workshop 4

By the end of this session, participants will be able to

• Identify key features of an effectively differentiated classroom.

• Explain some of the key concepts and principles of differentiated instruction.

• Use one or more instructional and management strategies that support differentiated instruction.

• Identify ways in which they currently employ strategies and principles of differentiation, as well as areas they might target for additional growth in differentiating instruction.
## Addressing the Needs of Diverse Learners

<table>
<thead>
<tr>
<th>Elements you’re pleased with:</th>
<th>Elements you’d like to alter:</th>
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The Equalizer

1. Foundational
   Information, Ideas, Materials, Applications

2. Concrete
   Representations, Ideas, Applications, Materials

3. Simple
   Resources, Research, Issues, Problems, Skills, Goals

4. Few Facets
   Disciplinary Connections, Directions, Stages of Development

5. Smaller Leap
   Applications, Insight, Transfer

6. More Structured
   Solutions, Decisions, Approaches

7. Clearly Defined Problems
   Process, Research, Products

8. Less Independence
   Planning, Designing, Monitoring

9. Slower
   Pace of Study, Pace of Thought

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Differentiated Instruction

• Content, activities, and products developed in response to varying learner needs

• Based on diagnosis of student readiness, interest, and learning profile

• Focused on key concepts, understandings, and skills

• All students doing engaging and challenging work

• Continual progression for each learner

• Flexible use of time and space

• Targeting instruction using a variety of strategies such as tiered assignments, learning centers, contracts, compacting, independent study, and learning buddies

• Flexible grouping including learning in pairs, triads, quads, student-selected groups, teacher-selected groups, random groups, and as a whole class
Resources and Readings


Learning Centers

A learning center is a space arranged to accommodate a specific activity or experience.\(^1\) Sometimes one center can accommodate more than one activity, either at the same time or consecutively. Learning centers in early childhood classrooms, at both preschool and at primary grade levels, generally include spaces especially prepared for:

- block construction
- books, reading, and language arts
- manipulative materials of many kinds
- arts and crafts
- music activities
- math learning
- science exploration
- housekeeping and dramatic play
- woodworking

In the primary grades, more space may be allocated to math and reading activities than to anything else, except during free periods, when other centers come into being. Where open or informal classrooms are featured in the primary grades, learning centers are used for the majority of the time spent in the school. In kindergartens where book learning receives strong emphasis, there may be less opportunity for exploratory and self-chosen learning activities.

In addition to the learning centers listed above, many rooms also have learning centers for such activities as:

- listening
- games
- large-muscle activity
- cooking
- snacks or meals
- rest periods

Some learning centers necessarily share space with others. The same tables and chairs children use for eating are available at all times for games and manipulative work or for arts and crafts. When large-muscle activities take place, often when inclement weather curtails usual outdoor play, tables are pushed to the wall and chairs piled on top, for maximum uncluttered floor space. In small classrooms, centers can have alternative uses or become transformed in some important way to accord with children's growing and changing interests, needs, and concepts.

Some classrooms have alcoves, L-shapes, or double rooms. These spaces can accommodate quiet and noisy activities at the same time, make learning center demarcations clear, and facilitate creating new centers of learning.

Pleasing arrangements develop as children's products and materials become part of the decor. In additional to aesthetic requirements, physical arrangements should also:

1. Emphasize safety and good healthy practices.
2. Be easily restored at clean up time.
3. Be readily changed when necessary or desirable.
4. Feature well-established child interests and activities, and teacher interests as well.
5. Contain some surprising and unexpected features.
6. Permit multiactivity periods.
7. Permit constant adult-monitoring and visual scanning.
8. Help reduce conflict and discord.
9. Create enthusiasm for attendance by children.

Adding carefully selected objects from time to time usually suggests new kinds of play and dramatization. When children begin to explore adult roles, trips and

experiences can become the reasons for adding items that suggest specific occupations. Each time a piece of equipment or a new object appears, the play is likely to take a different turn, open interesting questions to pursue, and require additional experiences and sources of information.

A listening center can use a record player and records, a radio, a tape recorder and cassettes, and a television set. Headsets for listening and equipment for sharing a listening experience with several children are useful. The book area is well placed near a listening center, so that children can look at a book if they are listening to a recording of that story. In some kindergartens and primary grades, the books may be written by the children, or dictated by the children to the teacher, while the recording may be by either the teacher or the child. When such in-class-produced books are written and duplicated for the group, high excitement attends the listening and the identification of the voices and the stories.

In the arts and craft learning center, in addition to easels, brushes, paint, paper, and storage facilities, there may be a wide variety of art media, recycled junk, and all kinds of collectibles. Crayons, finger paint, paste, scissors, staplers, hole punchers, clay, pastels, papier mâché materials and many kinds of tape may all be housed here. Collectibles might require boxes labelled:

- buttons
- beads
- hardware
- fabrics
- ribbons
- string
- shoelaces
- shells
- seeds

Tables and chairs are usually required for these projects, although in some centers many kinds of activities are carried out on the floor, which has been well prepared to facilitate clean up of messy materials.

**Science Centers**

Unlike a museum, a science center should contain materials to be touched, manipulated, or used in many ways. Its major purpose being to stimulate curiosity and exploration, the objects placed there should be:

1. Changed frequently
2. Durable and child-proof
3. Expendable, if fragile
4. Manipulable in some way
5. Suggestive of specific activities

Some “view” materials are certainly welcome in the science center, but the major effort should be on objects that can be combined, transformed, or changed in some fashion. For example, a collection of objects in a box or on a tray, together with a magnifying glass (inexpensive plastic ones are available), a bowl of water, and a mopping cloth or sponge enables children to examine objects under magnification, and to discover the results of immersing objects in water.

Teacher guidance in a science center, following or preceding children's explorations, might include questioning to elicit children’s ideas or plans of action, probing them or suggesting additional possibilities. Furthermore, teachers can suggest simple recording or tallying devices to children to preserve observed information. With magnets, for example, a popular device is to offer two boxes, one for magnetic, the other for nonmagnetic objects.

Children and parents can be encouraged to make periodic contributions to the science center. Collections that children make on family trips are often useful, such as seashells, rocks, plants, flowers, tadpoles, seeds, and leaves.

If a rock collection is placed at the science center, activity possibilities are
suggested by a produce scale for weighing, a bowl of water for immersion, a magnifying glass for closer observation, and a small hammer for fragmenting. The last item requires teacher guidance for safety, to insure that rocks are securely placed within a sock or cloth bag before hammering. Children can record or tally rock types, read introductory books on rocks with good pictures and useful texts, refer to children's encyclopedias, and use model rock classifications such as those obtainable from a natural history museum.

Activities with plants and seeds at the science center need teacher guidance to insure orderly observation, hypothesizing, and experimental activities. Shelves and space required for ongoing activities help to preserve continuity of studies in the center.

Live animals and plants in the science center require special care. Rules are necessary for the health and safety of animal and plant life in the classroom. In addition, the care and observation of animals presents fine possibilities for teaching empathy, respect for all life forms, and ecological balance in nature.

Outdoor science studies should be exploited. Outdoor science (some of which can be carried indoors) includes playful exploration of the properties of sand, mud, water, and rocks as well as plant and animal life in natural environments. If outdoor space, water sources, and weather permit, engrossing experiences can be stimulated by water channels, pools, and controlled waterfalls.

**Math Centers**

With so many materials available, chief problems are budget and packaging. If budgets are adequate, one can buy transparent boxes with lids, which are ideal storage containers for the multipiece sets characteristic of so many math materials. Large, clear labels on each box save time and effort for all.

If budgets are adequate, parents and local stores can be solicited for donations of objects and useful containers. Shoe boxes can be useful containers if they are well labelled and reinforced at the corners with cloth tape. Innumerable objects can be used for counting, creation of sets, and simple operations with sets. Buttons are very useful, easily collected, and much prized for work on sorting and classifying. Thrift shops are excellent sources for unexpected collections of sets.

Objects useful as math materials include:
- paper plates (to demarcate sets or sub-sets)
- dice (for math games)
- playing cards
- washers or other small hardware items that are identical
- plastic poker chips, in one or more colors
- sets of identical or similar objects, such as miniature vehicles or furniture or other toy-like objects
- beads—wooden, metal, or plastic (but not too small!)
- bead stringers, such as fishing line or shoelace-like materials
- felt-tipped pens, crayons, and pencils for writing or tallying
- oak-tag or construction paper, or other kinds of paper for charts, tallies, and graphs, or for writing tasks
- measuring devices of all kinds for weighing or taking linear dimensions (such as a postal scale; produce scale; baby scale; rulers, metric and yardsticks; or unmarked lengths of wood or oak-tag)

Teacher guidance in the math and science centers includes suggesting tasks by asking questions, or by furnishing task activity cards that stimulate appropriate uses of the objects in the center. For children in
the primary grades, the activity cards can increasingly challenge reading skills, while for preschoolers materials with more pictures and diagrams are used.

**Block Centers**

Because a block center requires increasing space as construction skills and concepts grow, it should be arranged so that expansion is possible. Good storage of blocks is essential, preferably on open shelves that leave blocks visible and permit classification by shape and size. Accessories that stimulate block play include miniature figures of people and animals, miniature vehicles of many kinds, traffic signs, and pulleys and string. Carpeting is optional, but noise levels can be unbearable without carpeting. However, carpeting deprives children of occasional satisfaction from loud crashes.

**Manipulative Materials Centers**

In the manipulative materials center the teacher usually places such items as:

- pegs and pegboards
- jigsaw puzzles
- interlocking plastic or wooden sets of various kinds
- construction sets
- wooden beads and strings

If there is no math center, math materials, such as counting cubes, an abacus, or logic blocks may also be placed here. Floor, table, and chair space is needed to accommodate children’s different ways of working with these materials. Good storage is essential.

If the classroom includes a woodworking center, a firm, well-constructed carpentry bench is a must, preferably one that is bolted to the floor. Some primary grade classes may have access to a woodworking room. Tools must not be toys, but well-made, child-sized tools. With good rules and supervision, good tools are far safer than cheap or toy-like objects. In addition to good vises and an appropriate selection of tools, the woodworking center needs plenty of softwood of different kinds, especially the odds and ends that can be solicited from lumber yards. Hardwoods are unsuitable for children’s use. Other accessories needed include nails, hardware of various kinds, dowels, string, fasteners, sandpaper of different grades, as well as steel wool, files, and other finishing equipment.

Younger children often like to decorate their woodworking products or use them immediately in some play activities. Decoration might be made at the art and craft center. If the woodwork product is a boat, there may be need to use a sink or a large basin to hold water. Sometimes boats go into the block corner to sail on pretend rivers, lakes and oceans. Some children might enjoy blue paper instead of water for make-believe waterways. Older children may plan more ambitious projects that cannot be finished in one effort but may need several days or weeks for completion. This requires space for work in progress. Mitchell’s and Spodek’s use of the block area for development of geographic concepts indicates the limitless possibilities in integrating constructive activities with playful, imaginative projects.

Space allotments must be adequate to the number of children likely to use the center at the same time. Primary grade teachers might prefer to set up carrels or table space set off by low partitions to screen children from distracting activities while they are trying to complete assignments. One first-grade teacher set up such carrels in units of one, two, and three to accommodate projects with various space requirements, choosing children to work in the carrel thought to be least distracting or most productive for the group formed.
**Preparation of Centers**

Major learning centers should be in place when children arrive for their first school day. The centers needed for a viable learning experience include blocks, arts and crafts, books and reading, manipulative activities, dramatic play in the housekeeping area, and a music center. Many teachers prefer to delay activities such as woodworking or listening, cooking, and games until children adjust to school routines, learn the rules and the self-discipline to follow them. As children become more rule-governed in their behavior and better accommodated to group needs and procedures, their growing independence gives teachers the security to initiate new activities that demand more self-control.

Teachers should bear in mind the need to avoid sexist stereotypes about what girls or boys prefer, as contemporary movements continue to challenge traditional notions of what is right for boys and what is right for girls. Teachers should prepare activities in sufficient variety, but with enough selectivity to insure that safety, supervision, and the maintenance of materials and order will be readily accomplished. Activities available for free choice sometimes require guidance from the teacher, especially for children unfamiliar with them or intimidated by more aggressive children. Some teachers also stress the need to guide children to explore all centers periodically, in order to broaden interests, skills, and social preferences. Records of children’s major interests are invaluable for this purpose.


Independent Study: A Flexible Tool for Encouraging Academic and Personal Growth

Carol Ann Tomlinson

A goal of many middle school teachers for their students is movement from dependence toward independence as learners and as people. By their nature, many elementary school students are highly dependent upon their teachers for both the content and structure of schooling. By the high school years, students will fare much better as learners if they can sense problems, raise relevant questions, design investigations, and seek insights and solutions on their own. Such independence of thought and planning not only facilitates learning, but also builds student self-confidence, another key goal of middle level education. When students increasingly see themselves as decision makers, planners, and generators of knowledge, they feel a sense of control over their worlds. Middle school is a time when teachers can actively help their students make the transition from dependence to independence in learning, and in so doing, aid students in developing a sense of positive power and self-esteem as well. One instructional strategy which is ready-made for this purpose is independent study.

Independent study described

Independent study is actually a range of strategies in which students should assume major roles in:

1. Selecting topics or questions to be investigated;
2. Designing plans, procedures, and products for the investigation;
3. Establishing and employing criteria for assessing the effectiveness of both the investigation and its end product;
4. Conducting the investigation; and
5. Sharing its findings.

Independent studies allow students to pursue topics of interest in a direction or depth which is not suitable for or likely to be pursued by the class as a whole.

Independent studies are rich with possibilities for middle school classrooms because they can address differences in student interest and readiness, allow expansion of thematic or concept-based units, promote students' awareness of their own thinking (metacognition), encourage active learning and flexible grouping, and assist in making the classroom more student-centered than teacher-centered (Stevenson, 1992).

Students may work on independent study projects alone or in small investigation groups, thus adapting well to flexible grouping arrangements which are often features of middle school classrooms. Further, independent studies may assist the teacher who is attempting to meet the needs of some students to move at quicker paces of learning and others who may benefit from additional time on a core topic or idea.

Diagnosing student readiness

A key feature of successful independent study in the middle school is a teacher who realizes that his/her students are at varying levels of readiness for independent work and who plans accordingly. Students who are ready for a great deal of independence from teacher input and direction will be released from persistent teacher supervision. Students who still require a great deal of assistance in planning and executing plans will be provided with greater structure. In other words, the teacher will attempt neither to over nor under direct the work of students, understanding that a "one project fits all" approach will be ineffective in most middle school classrooms with their broad range of student readiness. It may be helpful to teachers to envision a continuum from dependence toward independence in helping students plan independent investigations (Figure 1).

Some students are likely to be at a point of development where they require assistance in developing the basic skills of independence. These students may not begin by working with full-fledged independent studies, but rather will be aided by the teacher for a time in learning how to make choices, find information, use resources, plan their time, set and follow through with goals, measure goal attainment, and develop a basic vocabulary and practice of process skills or thinking skills such as comparison, catego-
rizing, originality, fluency, etc. Such students require high teacher structure and may at first be both more comfortable and successful with a lesser responsibility for designing their own work. They may benefit from short-term assignments that help develop comfort with skills which can facilitate their growth as more independent thinkers and learners, and may reach goals more satisfactorily when in-class time is given for tasks rather than assuming that students are ready for a leap into completing tasks at home.

At the other end of the continuum is a student who is ready for self-guided learning. This learner has well-developed skills of inquiry and most likely a strong sense of the contents of a particular field of study. This student can pose his or her own questions for study, plan the study, carry out its steps, adjust plans as changing circumstances dictate, and assess the effectiveness of his or her work. In this instance, little teacher structure is required because the student demonstrates a high readiness for self-determination. Such students may well remain absorbed in independent studies for long spans of time and may find it both pleasing and necessary to carry out major portions of the study outside of school. For these students, the teacher will primarily be a colleague who converses with students about their work, raises questions that may help extend or clarify questions, and provides feedback (or secures an “expert” on the topic who can provide “authentic” feedback) as needed.

In many middle school classrooms, there will be a few students at one or both ends of the continuum. Imagine how frustrating and unproductive it would be for either set of students to be required to conform to expectations for independence suited to their counterparts at the opposite end of the continuum. The student who is already ready to function as a self-guiding learner should be encouraged to do so, and the student who is lacking fundamental skills of independence should be systematically helped to develop those skills.

**Students in the middle**

In most middle school classes, the majority of students will fall somewhere in the center of the dependence-independence continuum. Some of these students will be ready for structured independence and some for shared independence.

Students in the structured independence category may be comfortable selecting from several proposed tasks which have been designed by the teacher, or they may be ready to complete open-ended assignments in which the teacher has established parameters for a task, but has designed the task so that there are varied ways of completing it. They may be ready to pose key questions which result from previous study and to seek answers for their questions, or may be guided by the teacher in doing so. They may be able to follow timelines which delineate points at which various segments of an investigation must be completed and reviewed. They may be comfortable evaluating their work according to criteria predetermined by the teacher but with student input. They may be able to keep records of what they did at each stage of the project or investigation and to describe their progress through the steps of problem solving.

Students ready for shared independence have progressed to a point where they can begin to pose a problem for investigation, design an investigation, establish and generally adhere to timelines for their work, log their thinking processes as they work, and measure their effectiveness according to criteria which they delineate. These students, however, still require a teacher who plays an active role in refining the design of the study, responding to work in progress, and assisting the learner in developing expanding awareness and vocabulary of their habits of work and thought. The teacher and student at this level of readiness collaborate as partners in the design and execution of the independent study.

![Progression Toward Independent Learning Over Time](image)

**Progression Toward Independent Learning Over Time**

<table>
<thead>
<tr>
<th>Basic Skills of Independence</th>
<th>Structured Independence</th>
<th>Shared Independence</th>
<th>Self-Guided Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Making choices</td>
<td>1. Selecting from among topics</td>
<td>Student poses and teacher refines:</td>
<td></td>
</tr>
<tr>
<td>2. Finding answers</td>
<td>2. Completing open-ended assignments</td>
<td>1. Problem</td>
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<tr>
<td>5. Basic elements of creative &amp; critical thinking</td>
<td>5. Self-evaluation according to prepared criteria</td>
<td>4. Process</td>
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<tr>
<td>7. Follow-through</td>
<td>7. Documenting stages in the process</td>
<td>Student documents process (Metacognition)</td>
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<tr>
<td>8. Discussion of goal attainment</td>
<td></td>
<td>Teacher monitors process</td>
<td></td>
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</tbody>
</table>

High teacher structure
Low student determination
Short term potential
In-class completion

Low teacher structure
High student determination
Long-term potential
Out-of-class completion
Of course many students will be "between" categories of development at any given time. For example, one student may be quite capable of generating a problem for study and a design for investigating the problem, but may lack skills of adhering to timelines without close teacher supervision. The point is for teachers to have a sense that:

1. Movement toward independence is developmental;
2. There are specific skills which are required in order to develop independence;
3. Students will vary in their readiness to apply certain of those skills; and
4. A careful teacher can diagnose readiness and encourage maximum application of skills by each student at his/her level of readiness.

Independent study in a middle school classroom

Mrs. Jameson teaches seventh graders and has as a goal that her mixed ability students will each develop toward independence in learning. She talks with her students as a group about her goal, why she feels it is important, and makes it a point to include talk about skills of independence throughout the year in individual conferences with her students. As the year progresses, she attempts to diagnose both readiness for and growth in independence. She has some skills of independence listed on one of her small bulletin boards, uses that vocabulary with her students, and encourages them to propose adding other skills words to the list as they become aware of what they do when they exercise independence as a learner. She also makes it clear to the students that through the year, she will both give them and assist them in developing independent study tasks through which they can grow in independence and she can help them chart their growth.

She tells the students that they should not all expect to have the same independent study tasks at the same time for a variety of reasons. It would be difficult for her to be as attentive to their independent work if everyone were working on such projects at once. Also, independent studies are generally most effective if they reflect student interest in a topic, and students will not all be interested in the same topics at the same time. In addition, she lets them know that they will not all be ready for the same sorts of independent tasks at the same time any more than they are all ready for the same size clothes simultaneously. She also explains to students how they can propose individual or small group independent studies whenever they find a topic they would like to pursue further.

Just before mid-year, students were studying relationships among characters in literature. There were four boys who enjoy reading and talking about science fiction, and who were in the shared independence range. Mrs. Jameson suggested that the boys might enjoy developing a month-long independent study to investigate the nature of the relationships among characters in well-known science fiction novels they had read. The boys followed an independent study guide available for their use to help them describe a specific question they would address, resources they would consult in their investigation, an end-product they would create, stages and roles in developing the product, who they would share their findings with, and how they felt their work should be evaluated. Mrs. Jameson met with them to discuss their proposal, and helped them focus their question, expand their resource list to include people as well as print sources, refine their list of criteria to eliminate some requirements which were probably too ambitious and address issues of accuracy in the written component of their findings.

Earlier in the year, a large number of students, many in the structured independence range, elected to complete a "contract" in creative writing (White & Greenwood, 1992; Greenwood, 1988). In the contract, Mrs. Jameson specified three writing tasks which must be completed. Students who elected to accept the contract could either propose a fourth task of their own, or select a fourth task from a list of options included in the contract description. Similarly, she provided some criteria which had to be met for a contract to be completed at various levels of competency. Students could add criteria to the list as appropriate for the way in which they modified the contract to suit their interests.

Throughout the year, Mrs. Jameson met with small groups of students and with indi-
viduals to discuss both short-term and longer-term assignments they were completing. With two students in the basic skills of independence range who had difficulty working independently, she often helped them set and monitor timelines for assignment completion, and took care to have them delineate resources and materials they would need to complete their work, as well as determining how they would ensure that the needed materials were available. She had them set goals for accomplishing segments of assigned tasks and evaluate their success in meeting those goals.

Late in first semester, Geoff, who was in the self-guiding range, asked Mrs. Jameson if he could propose an independent study on a facet of archeology he was curious about. Mrs. Jameson knew that Geoff was a very advanced learner, a responsible student, and a child who became passionate about new topics. When he apologized that archeology was not exactly what Mrs. Jameson’s class was about, she asked him to suggest connections between what he wanted to do and the goals of the class. Together, they decided that thinking, researching, writing, oral communication, letter writing, problem solving, as well as other goals, could be shared in common between the language arts class and Geoff’s independent project. They agreed that Geoff would design and execute the project in such a way that he addressed these common goals. He did design and carry out the independent study using those goals, and consulted Mrs. Jameson when he wanted to talk with her about his processes or his findings.

Mrs. Jameson also conducted mini workshops throughout the year which assisted students in a variety of ways, including their movement toward independent learning. In groups varying in size from a half dozen students to the whole class, she led her students in talking about topics such as the Creative Problem Solving Process (Eberle & Stanish, 1980), designing projects, interviewing, and keeping a process log of steps and strategies used in completing long-term assignments.

The examples from Mrs. Jameson’s classroom show how she varied independent study assignments to meet needs of students who needed help with basic skills of independence as well as those who were ready for structured independence, shared independence, and self-guided learning. She appears to have had a sense of her students’ individual readiness for independent learning and the ability to plan for their movement along the continuum toward independence.

Other suggestions for successful independent study

When middle school learners are ready to begin working at a shared independence or self-guiding level, they are ready to design independent studies with reasonably well developed degrees of student determination and out-of-class longterm investigation potential. The following guidelines should ensure greater success in such independent study projects and may be modified for the readiness level of the student.

- Have students propose a topic for study which they really care about, as opposed to one which a teacher assigns to them. This maximizes intrinsic motivation and goes a long way to ensuring follow through.
- Be sure students read broadly about the topic before they describe the project. This ensures they understand the issues they would be studying if they proceeded with the project.
- Help students use a variety of resources for their study, including people and documents as well as more traditional print sources. Steer clear of encyclopedias whenever possible.
- Have students determine problems or issues which professionals in the field think are important and which those professionals themselves would study. This ensures open-ended pursuits which will require thinking and problem solving for students who are likely advanced in their ability to deal with the topic in question.
- Ensure that students develop timelines for completing the whole task as well as components of it. Keeping a simple calendar of times worked and tasks completed on a given day (initiated by parents if possible) may be useful in helping both students and teacher monitor progress and work habits. Many students at the shared independence level will need to have teachers and/or peers critique their work as it progresses to squelch procrastination and to monitor quality. For these students, it will be wise to establish “check-in dates.”
- Make sure students keep a process log of what they think and do as they work on their projects. They can write about how they developed their topic, ideas they gained as they did background research, ways in which their thinking changed over time, problems they encountered and how they solved those problems, how they deal with frustrations and how they felt when things were going really well. The log may include sketches, photos, journal entries, etc. Such a log not only helps students become more aware of their thinking processes, but also helps teachers understand what transpired in creating a product whose appearance may belie its actual scope.
- Have students generate criteria according to which the product should be evaluated. These lists of criteria should be begun early in product development and modified as necessary (typically with teacher consent) as the project develops. It is often important for the teacher to help students develop or refine these lists. Pre-existing criteria give students a sense of power over their own work and aid the teacher in evaluating final products with less fear of “subjectivity.”
- Have students plan from the outset to share their work with an audience which
can appreciate and/or learn from what the students create. Students should participate in identifying and securing these audiences, and the audiences may range in size from one (i.e., a mentor) to many.

- Help students develop awareness of a range of possible “final products,” which may necessitate their use of computers, various art forms, various modes of oral communication, ways professionals in a field would present their work, etc. It is also important to see that students learn how to manage these forms appropriately. Asking a student to write a play and then providing no assistance in playwriting is unlikely to be successful even for a very able middle schooler.

- Communicate with parents. Be sure parents know what the independent study entails (components, goals, timelines, criteria), your feelings about the importance of skills of independence, what parents can do that is helpful and what they might do that is hurtful in fostering growth toward independence during the duration of the independent study, what to do if they have questions, etc.

- For students who are advanced learners, independent study projects can provide an engaging and useful task for times in class when these students do not need all of the practice or review that other students may need on a given topic. If independent projects may be worked on during class, be sure you and the students involved agree (a) when it is appropriate to work on the independent study, (b) where in the classroom/school they may work, (c) what materials need to be at school to enable in-class work, and (d) other ground rules for in-class independent study. Successful use of independent study for in-class work probably presupposes a classroom in which the year-long expectation is that different students and groups will work on differing tasks from time to time.

Independent study: An ideal tool for middle school

It takes little effort and skill for a teacher merely to suggest to a student that he or she “Select something you’d like to do today and do it.” It requires considerably more facility for a teacher to understand the elements required for successful independence, to diagnose student readiness to apply those elements, and to assist students in designing independent tasks of a scope and duration which challenges without unduly frustrating individual students. A teacher who works toward understanding and successful implementation of a range of independent study opportunities in the classroom is progressing toward a flexibility which offers responsive and appropriate learning for the diverse middle school group.

Stevenson (1992) reminds us:

Just as the students are variable, so must their schooling provide complementary diversity—choices of curricular content, multiple approaches to teaching, diverse grouping formats. Expecting every student to learn the same material at the same time as a result of the same exposure is contradictory to their developmental diversity. Expectations that young adolescents will thrive in a teacher-focused, textbook-centered classroom hour after hour, day after day is at the very least naive. Teachers who expect and seek that type of uniformity should stay away from the middle grades, where at any moment authentic learning reflects learners engrossed in studying a multitude of topics employing a wide variety of learning activities, much of which they sustain themselves (p. 13).

Independent study is responsive to the diverse needs, interests, and readiness levels of middle school students whose developmental need is to move toward independence and self-confidence as learners and individuals. □

References


Carol Ann Tomlinson teaches at the University of Virginia, Charlottesville.
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