DIFFERENTIATED INSTRUCTION

A Paper
Presented to
Dr. David Kommer
Ashland University

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

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July 14, 2004
Differentiated Instruction

Imagine going to an ice cream parlor and having only one flavor to choose. What if a home buyer had only one option presented by the real estate agent? Suppose the shopping mall had only one set of clothes, no matter what customer came in the door. All of these scenarios seem ludicrous and yet these situations parallel what happens each day in many school classrooms. Often, the teacher presents one lesson format to a class of twenty or thirty students, expecting each individual to benefit from the experience (Tomlinson & Kalbfleisch, 1998). Though schools should be aiming to make possible the success of all students (Tomlinson, 1994b), many educational institutions fall short, especially for students whose abilities lie above or below the average (Tomlinson, 1994b; Callahan, Tomlinson, Reis, & Kaplan, 2000).

This paper describes differentiated instruction, one approach to addressing the disparity between standardized lessons and unique students. The following review of the literature will seek to explain the rationale for differentiated instruction, what differentiated instruction is not, and what differentiated instruction is. It will conclude with suggestions for planning a differentiated classroom and practical strategies that are compatible with this approach to education.

The Rationale Behind Differentiated Instruction

The Need for Differentiated Instruction

One only has to walk into a school classroom to see the diversity that exists in classrooms today (Weinstein, Curran, & Clarke, 2003). At one time, those with special needs were pulled out and separated from the mainstream (Fuchs & Fuchs, 1998). This all changed with the 1975 *Individuals with Disabilities Act* which required the least
restrictive environment for each student (Scott, Vitale, & Masten, 1998). Due to variables such as academic ability, cultural and ethnic background, socio-economic status, learning profile, and interests, each student is unique (Fiore & Cook, 1994). To responsive educators, all of these factors should be a harbinger of the need to adjust teaching practices and resources (Baker & Kameenui, 1994; Fiore & Cook, 1994; Reis, Kaplan, Tomlinson, Westberg, Callahan, & Cooper, 1998). Rather than lumping students according to similarities, schools now have the responsibility of recognizing and acting on student differences (Tomlinson, Coleman, Allan, Udall, & Landrum, 1996). Of course, having multiple students, each at different levels, is nothing new to education if one takes a step back in history. Today’s dilemma was, in fact, the central challenge of the one-room schoolhouse many years ago (Tomlinson, 2002a). However, recent political changes, including increased accountability to state and national standards, have placed an even greater spotlight on this reoccurring dilemma for educators (Carnine, 2004; Gray & Waggoner, 2002). Current practices are apparently not meeting the challenge (Purcell, Burns, Tomlinson, Imbeau, & Martin, 2002). Standardized curriculum and teaching approaches have often been unengaging, lacking in meaning, and unresponsive to student diversity (Udvari - Solner & Thousand, 1996). In light of these facts, it can be argued that teachers today face “a more challenging environment than ever before” (Moon, Callahan, & Tomlinson, p.56).

**Thoughts Behind Differentiated Instruction**

Realizing that each student is unique and being able to reach each individual are two different things. Many obstacles such as large class sizes, many demands on teachers’ schedules, and lack of training on how to differentiate impede even those
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Teachers who are willing to try to improve their practice (Tomlinson, 1995). Nevertheless, teachers have a responsibility to make school a place where every student can benefit. Tomlinson and Callahan write, “…Schools cannot succeed until all kinds of students are highly likely to maximize their possibilities there” (p.187). Though challenging, differentiated instruction is one approach that can help teachers to reach each student (Wobor, 1999).

Incorporating differentiated instruction into educational practices is a worthy goal for several reasons. First, differentiation is compatible with the American ideals of equity and excellence (Tomlinson, 1999a). Differentiated instruction is equitable by maintaining a core of what students should learn. At the same time, differentiated instruction also encourages excellence by varying how students come to make sense of this core understanding. Differentiated instruction essentially seeks to balance the various needs of students with the requirements of curriculum (Tomlinson & Edison, 2003).

Secondly, differentiation is compatible with standardized testing. Teachers who are serious about preparing their students for state tests realize that they need to provide their students with excellent instruction. Differentiated instruction is, first of all, quality instruction (Tomlinson, 1999b). Some teachers hesitate to undertake differentiated instruction in their classroom because they believe they are too busy preparing students for state tests. According to Tomlinson, teachers who feel this way imagine a false dichotomy between a need to reach diverse learners and a need to do well on state report cards. Teachers who truly understand the disciplines they teach can do both.
Tomlinson (2001c) encourages teachers to embrace state standards as a way to support excellent curriculum. She eloquently writes:

> Teachers feel torn between an external impetus to cover the standards and a desire to address the diverse academic needs. In truth, the problem is not a contradiction between standards and appropriately responsive instruction. The problem lies in an ill-conceived interpretation and use of standards that erode the underpinnings of effective teaching and learning. The problem is not that we can’t attend to the needs of individual learners, but rather that we’ve lost the essential frameworks of the disciplines in addition to the coherence, understanding, purpose, and joy in learning. Our first obligation is to ensure that standards-based teaching practice does not conflict with best teaching practice. Once those are aligned, differentiation, or attention to the diverse needs of learners, follows naturally.

(p.8)

Thirdly, differentiation is worthwhile due to the fact that it is compatible with what brain research tells us about how students learn best (Campbell, 2003). Brain research suggests three principles that highlight the need for differentiation (Tomlinson & Kalbfleisch, 1998). First, students must feel emotionally safe for learning to take place. Teachers who choose to differentiate instruction make sure their classroom environment is one that provides this security for a variety of students. In these kinds of classrooms, students feel safe to volunteer answers, realizing that they will not be ridiculed for making mistakes. Students also feel safe because teachers in differentiated classrooms embrace physical, cultural, and even economic differences in students (Tomlinson & Kalbfleish, 1998). Secondly, brain research indicates that students must be challenged...
appropriately in order to learn. Differentiated instruction educators keep in mind that curriculum too far beyond a student or well beneath them is not stimulating (Tomlinson, 2002b). Thirdly, brains must make meaning in order for lasting learning to occur (Campbell, 2003). Teachers of differentiated instruction classrooms build lessons on key concepts and principles. They also strive to keep students thinking at a high level so that they actively take part in their education (Tomlinson & Kauffman, 1998).

Fourthly, differentiated instruction is compatible with multiple intelligence theory. Supporters of multiple intelligence theory and differentiated instruction both agree that students learn and express their learning in different ways (Mettetal, Jordan, & Harper, 1997). For this reason, multiple intelligence theory can provide some strategies for practical ways to differentiate instruction in the classroom (Campbell, 2003).

What Differentiated Instruction is Not

As is the case with many new educational approaches, due to its complexity, misconceptions about differentiated instruction abound (Tomlinson, 2000a). Clearing these up is the first step toward truly understanding what differentiated instruction is meant to be.

Differentiated Instruction is Not a Strategy

It is not possible to simply add differentiated instruction into a classroom as if it were a supplement to the curriculum (Tomlinson, 2000a). Rather, it is a paradigm shift, or a change in thinking that requires years to accomplish. It is not a simple tool to be added on to an existing teaching style. It requires much hard work on the part of any educator who wishes to make it part of their philosophy of teaching. Tomlinson (2000a) points out that differentiating instruction requires a long-term commitment that stretches
beyond even five or ten years. It also necessitates the support of district leadership, building-level leadership, parents, students, and teachers (Tomlinson, 2001c). Making one lesson plan, teaching it in one way, and pacing it at one speed is easy. Differentiation is not. Like their students, teachers in differentiated classrooms must be willing to struggle in order to grow (Tomlinson, 1994b).

**Differentiation Instruction is Not Individualized Instruction From the 1970s**

Some teachers are disheartened when they hear about differentiated instruction because they mistake it for a disguised version of an educational approach that failed thirty years ago (Tomlinson, 2001b). Differentiated instruction is vastly different from the individualized instruction of the 1970s. First, differentiation does not require each student to do something different. This flaw of the 1970s approach overtaxed teachers and, not surprisingly, repelled them from adopting individualized instruction. Secondly, unlike individualized instruction of old, differentiation does not break instruction into disparate skill pieces. Instead, it emphasizes meaningful learning for all students (Tomlinson, 1998, 2001b).

**Differentiated Instruction is Not Undisciplined or Chaotic**

Some teachers fear embracing differentiated instruction because they believe they will have to give up control of their classrooms (Tomlinson, 2001b). That a differentiated classroom will necessarily be a disorganized and chaotic classroom is not a fair assumption. Teachers in a differentiated classroom actually exert more leadership as they manage multiple tasks simultaneously and as they help students begin to take responsibility for their own learning (Tomlinson, 1999b).
Differentiation is Not Tracking or Homogeneous Grouping

Some teachers shun differentiated instruction because they believe it is just ability grouping in disguise (Tomlinson, 2001b). Differentiation does not mean placing students in permanent groups based on their abilities. Rather, differentiation has a much more adaptable way of putting students in groups by ability, interest, or learning profile. Also, teachers in differentiated classrooms look at these groups flexibly and adjust them to fit the learning situation. Differentiated instruction also allows for whole class instruction or individualized instruction in addition to group instruction, depending on what would be most effective at that time (Tomlinson, 2003).

What Differentiated Instruction Is

No single, preset formula can encompass all that differentiated instruction entails (Tomlinson, 2003). The following pages will try to shed some light on the essence of differentiated instruction by highlighting the qualities that differentiated classrooms emphasize. After examining the characteristics of a differentiated classroom, this paper will describe the goal of differentiated instruction, the role of the teacher, and the learning environment appropriate for differentiated instruction.

Qualities of Differentiated Instruction

Perhaps Tomlinson (2002a) puts it best when she writes, “Essentially, teachers in differentiated classrooms accept, embrace, and plan for the fact that learners bring many commonalities to school, but that they also bring the essential differences that make them individual” (pp. 21-22). Keeping this in mind, teachers in differentiated classrooms can be described by a certain set of characteristics.
Differentiated instruction teachers focus on the essentials

Teachers must know and clearly communicate what they expect students to know, understand, and be able to do (Tomlinson, 2003). Before teachers can begin to differentiate, they must have a solid understanding of the key concepts, principles, and skills around which to organize their curriculum (Tomlinson, 2001b). By first being clear about these essentials, teachers can then adjust lessons to ensure that all students, from struggling to advanced, grow in their understanding of what is most important (Tomlinson, 1999).

Differentiated instruction teachers focus on concepts

Differentiated instruction keeps in mind the way that the brain is designed to work (Campbell, 2003). Since the human brain makes and retains meaning more efficiently when it is able to make patterns, the differentiated instruction teacher places more emphasis on concepts and principles than on fact-based topics. Focusing on concepts that provide a context for understanding makes it easier for the teacher to adjust to learner readiness. These concepts provide the structure on which students can organize the essential information to be learned (Tomlinson, 1998).

Differentiated instruction teachers are proactive

All quality teachers differentiate on some level, but those who are serious about differentiated instruction do not wait until a situation arises and then adjust instruction on the spur of the moment. Rather, teachers plan ahead to provide a variety of means by which students can access learning (Tomlinson, 2003). It is not a matter of making one quality plan and improvising to meet student needs. Instead, differentiated instruction
Differentiated Instruction teachers systematically plan multiple avenues of learning and then make further fine tuning adjustments as needed (Tomlinson, 2001b).

**Differentiated instruction teachers use assessment to guide instruction**

Contrary to what occurs in many traditional classrooms that use assessment as a culminating experience at the end of a unit, teachers in differentiated classrooms continually assess students. They do so in a variety of ways that span beyond the typical paper and pencil test (Tomlinson, 1999b). Students are pretested at the beginning of a unit, they experience ongoing assessment along the way through the unit, and they can expect to be assessed at the end of a unit. This evaluation has much more meaning than just a score in a gradebook (Brimijoin, Marquissee, & Tomlinson, 2003). Assessment, to a teacher who practices differentiated instruction, is the tool by which upcoming lessons and activities can be planned. Tomlinson (1999b) writes, “Assessment is today’s means of understanding how to modify tomorrow’s instruction” (p. 10). Teachers assess at several times and in multiple ways to make sure students have an opportunity to show what they have learned (Tomlinson, 2003). Teachers in differentiated classrooms are encouraged to look for every chance to get to understand their students better in order to continuously assess their readiness, interests, and preferred ways of learning. Since students are unique and continually changing, teachers need to consistently be students of their students (Tomlinson, 2001b).

**Differentiated instruction teachers are student-centered**

Students in a differentiated classroom are critical factors because teachers continually design lessons around their abilities, interests, and learning profiles (Campbell, 2004). Teachers in these kinds of classrooms spend more time teaching
students than they do teaching lessons (Tomlinson, 2001b). Students are also pivotal because they share responsibility for how the classroom is run. As the year progresses, teachers in a differentiated classroom guide students to take on more and more responsibility for their own learning (Tomlinson, 1999b). Students can be coached to help establish classroom rules, make suggestions regarding smooth classroom transitions, pass out materials, and monitor their own progress toward learning goals (Tomlinson, 2003). This helps students to become better learners and it also better prepares them for a life in which they will have to make many decisions regarding their own welfare (Tomlinson, 2003). Tomlinson (1999b) puts it well when she writes, “Teachers are the chief architects of learning, but students should assist with the design and building” (p. 12).

**Differentiated instruction teachers are flexible**

That teachers in differentiated instruction classrooms must be flexible is a major understatement. Not only must these teachers be flexible with time, space, materials, and pacing, they must also be willing to use a variety of instructional strategies depending on student needs (Tomlinson, 1999b). Some units will be brief while others may take weeks or months. The teacher may teach the whole class, groups, or individuals. Students may be grouped by ability, interest, or learning preferences and these groups are subject to change with the students (Tomlinson, 2003). Teachers must also be flexible as they present multiple approaches to what students learn, how they learn, and how they demonstrate what they have learned (Tomlinson, 2001b).

**Differentiated instruction teachers emphasize individual growth**

Students in a differentiated classroom come to realize that they are competing against their own personal bests instead of against their peers. They learn to set personal
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learning goals and chart their progress toward these goals (Tomlinson, 2003). While teachers in differentiated classrooms emphasize individual growth, they have to balance this emphasis with group norms. Teachers try to instill in their students that when all students are successful individually, then the class as a whole achieves success (Tomlinson, 1999b). Teachers in this kind of an environment must be sure to keep students and parents up to date on student progress relative to personal goals and grade-level expectations (Tomlinson, 2001b).

_Differentiated instruction teachers set their sights high_

Teachers should be just as excited about their own growth as they are about the growth of their students. Toward this end, they must constantly reflect on their teaching practices and be willing to expend maximum effort to achieve their greatest potential (Tomlinson, 2003). She reminds teachers, “We must remember that we have every opportunity to transform ourselves and our practice, just as we have every opportunity to stagnate, remaining much the same teachers we were when we began” (Tomlinson, 2002a, p.91). Of course, as teachers stretch and grow personally and professionally, they must expect the same of their students. As a result, differentiation can never be a way to water down curriculum. Instead differentiation requires students to stretch a little beyond what they can achieve on their own. All students should have assignments that require them to think at high levels and that look as exciting as assignments that peers are working on. When teachers push their students and provide the help they need to achieve challenging goals, both teacher and student succeed (Tomlinson, 2003).
Differentiated instruction teachers partner with specialists

Tomlinson (2003) compares a quality instructor to a general practitioner who is ready to call on an expert when needed. She encourages teachers to make use of special educators, gifted teachers, school counselors, reading specialists, and multi-cultural educators, to name a few. She reminds teachers that taking advantage of these resources not only helps the students, but it also provides an opportunity for teachers and other professionals to grow from working collaboratively (Tomlinson, 2003).

Differentiated instruction teachers realize that their profession is dynamic

Teachers in differentiated instruction classrooms realize that their job is always changing. Their profession is constantly shaped and reshaped by the students and their changing needs (Tomlinson, 2001b). They must constantly assess the match between instruction and students and make adjustments as needed. Teaching is also dynamic because a teacher who differentiates realizes that this is not a strategy but a long-term process. Differentiating teachers should be on a journey of continuous improvement, constantly evaluating and adjusting the ways that they teach (Tomlinson, 2001b).

The Goal if Differentiated Instruction

After examining essential qualities of differentiated instruction, the goal of this approach to learning becomes more clear. Differentiated instruction is responsive to quality teaching practices and varied learners’ needs, and its’ goal reflects both the learner and the content to be learned (Tomlinson, 2003). The goal of differentiated instruction can be stated in many ways, but simply put, it is to maximize the capacity of each learner. Teachers who differentiate instruction strive to help each student grow as much and as quickly as they can (Tomlinson, 2003).
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The Role of the Teacher in a Differentiated Instruction Classroom

Throughout the literature on differentiated instruction, the teacher has been described using a variety of metaphors, each presenting a slightly different perspective on how professional educators seek to accomplish the goal of differentiation. The teacher can be compared to a coach who trains students in becoming more responsible (Tomlinson, 2003, Tomlinson & Kalbfleisch, 1998). The teacher can be represented as a conductor of an orchestra, helping each part to develop and then bringing all parts together in a cohesive whole (Tomlinson, 2003). Additionally, the teacher can be considered to be a jazz musician who must know the score but also have the skill to embellish the music in creative ways (Tomlinson, 2003). Whichever analogy an educator prefers, it is evident that teachers in a differentiated classroom no longer exist only to give out information and administer tests. Tomlinson (2003) writes, “When teachers differentiate instruction, they move away from seeing themselves as keepers and dispensers of knowledge and move toward seeing themselves as organizers of learning opportunities” (p.16).

This new role requires a certain set of skills that distinguish teachers in a differentiated classroom from those in a more traditional setting (Tomlinson, 2003). Teachers in differentiated classrooms must be able to assess students’ abilities, interests, and learning preferences as a way to guide instructional planning. Teachers must then be able to provide multiple ways for students to make meaning from information and ideas. Teachers in differentiated classrooms must then be willing to allow students to demonstrate what they have learned in various ways (Tomlinson, 2003). Teachers must also develop the skill of being able to address the affective differences of students as well
as their cognitive needs (Kennedy, 1995). As teachers work on these skills, they must also keep current with best practices in education and how this research fits in with tailoring education to individual student needs (Udvari-Solner & Thousand, 1996). All of this sounds like a tall order, but realizing that teachers are limited humans that cannot be all things to all people, Tomlinson (2003) provides a caveat for teachers. She writes that though teachers can’t do everything for all students, differentiation does require teachers “create a reasonable range of approaches to learning much of the time, so that most students find learning a fit much of the time” (p. 17).

The Learning Environment of a Differentiated Classroom

Teachers who understand their roles in a differentiated classroom realize that one responsibility they have is to create a learning environment in which all students can learn. Just as important as the quality of their instruction, the classroom environment serves to invite student learning (Tomlinson, 2002b). Tomlinson (2003) emphasizes the importance of the learning environment, writing that it “may be the single most important make-or-break element” in maximizing student potential (p. 5).

Not surprisingly, learning environment has less to do with physical surroundings than it has to do with subtle ways the class operates. Productive classroom environments must balance support and challenge (Campbell, 2004). Healthy classrooms address cognitive and affective differences in students as well as academic variance (Kennedy, 1995). Tomlinson (2001b) encourages the creation of an effective learning community by ensuring that everyone feels welcome, mutual respect is valued, students feel safe, growth is clearly expected, teachers help students achieve success, students understand fairness doesn’t always mean the same treatment, and lastly, teachers and students work
together to achieve success. Tomlinson (1999b) also makes these suggestions: teachers must appreciate each child as an individual, teach the whole child, continue to develop expertise, link students and ideas, work toward joyful learning, have students make meaning, and share responsibility with students. An energetic teacher who is not afraid to let humor be a part of the classroom goes a long way toward creating a positive learning environment.

Once a healthy classroom environment has been created, care has to be taken to ensure that things operate smoothly throughout the year. Several management strategies may be especially helpful in a differentiated classroom (Tomlinson, 2001b). Teachers should be ready to explain their rationale for a differentiated classroom. Changing how classrooms normally look may require some explanation for students, parents, and even colleagues. Teachers should differentiate at a comfortable pace that defies procrastination but also avoids overload. Teachers can benefit by providing anchor activities that can focus the students back together as a class after working on separate activities (Campbell, 2003). Teachers can deliver instructions carefully by tape recording them, using task cards, or assignment sheets rather than sharing all directions orally. Teachers should also post group assignments so transitions to seating arrangements can go smoothly. Establishing a home-base for students to sit at can also help with opening and closing activities for the day. Teachers will do well to ensure students know how to get help and when the teacher is off limits. Tomlinson (2001b) suggests setting up student experts to answer questions or training students to think back through directions that have been given before seeking the teacher’s guidance. Teachers would do well to have a plan for students who finish early, such as a folder of work in progress that
students can work on. Teachers can also establish well-marked places for handing in work instead of giving a variety of assignments to the teacher upon completion. Teachers should train students to handle as much of the responsibility for classroom procedures as possible. For example, students can help create classroom policies and move classroom furniture when needed. Lastly, Tomlinson (2001b) encourages teachers to find what other practical suggestions colleagues with their own differentiated classrooms have found helpful.

Planning for Differentiated Instruction

Planning for a differentiated instruction classroom is not a simple task. This paper will examine some basic guidelines to keep in mind, followed by student characteristics and curricular elements that play a major role in planning to differentiate instruction.

Basic Guidelines

One way to begin to consider how to differentiate instruction is to keep in mind the students at broad ends of the typical classroom spectrum (Tomlinson 2001b). Examining advanced learners and struggling learners can start to shed some light on the process of differentiation and help teachers start to reach beyond focusing solely on students in the middle. Advanced learners tend to learn more quickly or more deeply than would be expected. Tomlinson (2001b) urges educators to heed the following suggestions: communicate that excellence is expected, make clear what defines excellence, keep raising the ceiling of expectations while providing support to achieve these expectations, and maintain a healthy balance between challenge and joy in learning. Regarding the advanced learner, Kennedy (1995) reminds teachers that some students
who are well advanced cognitively lack the social and affective skills to match. Teachers should be aware of these discrepancies and make an effort to help these students develop socially as well as academically. On the other end of the continuum from advanced learners are struggling learners for whom the typical school classroom is a challenge. Tomlinson (2001b) provides the following suggestions for this broad category of students: look for strengths, affirm the positives and build on them, keep learning relevant, focus on the big ideas and key concepts, and make students stretch. All students, no matter where they fall along the continuum between advanced learner and struggling student, should be pushed just beyond what they can do independently.

According to Udvari-Solner and Thousand (1996), this emphasis on maximizing student potential by constantly pushing them to higher levels falls in line with the sociocultural view of cognition promoted by Vygotsky. These authors remind teachers that students should be met at the level they bring to class and then guided along through the zone of proximal development by providing the support they need to achieve more. The guidance students receive to ensure their success can be referred to as scaffolding.

Throughout many of her works, Tomlinson emphasizes the dual importance of continuing to raise the levels of excellence required by students while at the same time providing the appropriate scaffolding to make sure students can succeed (1999b, 2001b, 2003). Helping the students to achieve what they never thought they could alone makes the difference between shallow self-esteem and a deeper, longer lasting sense of self-efficacy (Tomlinson, 2001b). It is one thing to tell a student how good they are, but it is another thing to support them as they discover for themselves the feeling that comes when they achieve.
Of course, anyone who has spent time in the classroom will realize that viewing advanced and struggling students is just the beginning of starting to understand student differences. Not only are there a host of different levels of understanding packed between the two ends of the continuum, but students have uniqueness beyond intellectual ability.

**Student Characteristics**

Three main areas of differentiation based on student characteristics are readiness, interest, and learning profile (Tomlinson, 1999a, 1999b, 2001a, 2002a, 2002b, 2003).

**Student readiness**

This student quality is one that frequently comes to mind when teachers begin to differentiate instruction. Student readiness can be defined as a student’s present preparedness to work with the knowledge, understanding, or skills the class is about to study (Tomlinson, 2003).

Teachers in differentiated classrooms have the responsibility to avoid the urge to start at the front of a manual. Instead, they need to evaluate the level that students bring to class, meet students where they are, and provide the support they need to stretch to new levels (Tomlinson, 2002a). One tool teachers can use to think about this idea is the equalizer. Just as a radio has buttons that slide across several continuums to produce the best sound, teachers can adjust instruction on several levels to make it the most effective it can be for each student (Tomlinson, 2001b). Instruction can be tailored to be more foundational or transformational, more concrete or more abstract, simple or complex, single faceted or multiple faceted. Students can be asked to make small leaps or great leaps as they apply what they have learned. Activities and assignments can be more
structured or more open-ended. Students can be granted less independence or greater independence and the pace of instruction can be slowed or sped up. All of these adjustments can be made so that students, each at different levels of readiness, can be supported as they are slightly stretched toward a new level of achievement (Tomlinson, 2001b).

Some specific strategies exist to help teachers address a classroom full of students at different levels of readiness (Tomlinson, 2001b). Teachers responsive to multiple readiness levels can provide texts and supplemental reading materials at various levels. Differentiated instruction teachers can create assignments that are tiered so that each one includes the same essential concepts but students can complete an assignment at their own appropriate level of difficulty. Teachers can be flexible with time, allowing more for those who need it to complete certain assignments. Homework can be presented with options that vary based on readiness levels. Teachers can provide graphic organizers that are more specific or less detailed depending on student needs. Again, all of these strategies are available so that the teacher can challenge the students at each of their readiness levels while providing enough support to succeed (Tomlinson, 2001b).

**Student interest**

This second student characteristic describes the level that the topic or assignment at hand appeals to the learner (Tomlinson, 2003). Interest is a major motivating factor when it comes to learning. Subject matter does not usually possess the inherent power to make students want to study it. Tomlinson (2002b) writes, “The impetus to learn generally does not come from the content itself, but rather because a teacher has learned to make the content inviting” (p. 7). She encourages teachers to take the responsibility to
make learning irresistible for students by meeting five of their needs: affirmation, contribution, purpose, power, and challenge. According to Tomlinson, students feel affirmed when they are part of a welcoming and accepting learning environment. Students need to feel that people at school accept their differences, care about them, listen to them, and are concerned about their success at school. Next, students feel that they make a contribution when they believe that their success is pivotal to the entire class’ success, they are making a difference, their uniqueness adds a new dimension to the classroom, and they are linked to classmates through common goals. Tomlinson (2002b) points out that students understand purpose when they believe their work at school is relevant to real life, makes a difference in the world, and is important enough to consume their time and energy and have personal meaning to them. Students feel powerful when they can make choices about their learning, they understand and are able to achieve quality work, they can depend on support to achieve their goals. Tomlinson (2002b) writes that students feel challenged when they realize that they are working hard, they feel stretched by their work, that hard work usually brings success, and that they are accountable for their work. When these five invitations to learn are at the forefront of their classrooms, teachers’ actions do a lot more than words could ever do to interest students in the learning process (Tomlinson, 2002b).

Besides providing invitations to learn, teachers can also examine two other ways to keep students interest in their own education (Tomlinson, 2001b). First, teachers can build on interests the students already possess. Rather than having to drum up support in new ways, teachers can carefully study their students to find out what already interests them. Then teachers can help students see a link between what they already enjoy and
what school has to offer. Teachers that use concepts to show the connections between
different aspects of what is learned at school can use what students are familiar with to
bridge to new topics. Once teachers find these existing interests, they can tap into them
by allowing students to study these topics further through sidebar studies, interest centers
or groups, or in specialty teams. Each approach allows students to develop new
understanding and skills by building what they are already interested in. Studying
something they are passionate about allows students to make learning memorable and
long-lasting. Tomlinson (2002b) writes, “For some students, the greatest gift a teacher
can give is permission to explore a topic, time to do it, and an interested ear” (p. 58). A
second way to keep students interested in learning is by expanding how students can
express their interests. Teachers can present a topic and build student interest in it by
providing a variety of real life applications for the topic. In other words, the teacher can
allow students to express what they have learned through several different avenues.
Students can create a poster, write a paper, create a timeline, make a performance, or
create a website (Tomlinson, 2002b). In this way, students become engaged in learning
because they are interested in how they can share what they have learned. When teachers
used interest-based exploration, they should be careful to keep students focused on key
elements of curriculum. They also need to make sure to provide the appropriate amount
of structure that various students need to succeed (Tomlinson, 2002b).

Several specific strategies exist that allow teachers to capture student interest and
channel it into effective learning. I-search, orbitals, design-a-day, group investigation,
webquests, jigsaw, literature circles, and negotiated criteria are just a few strategies
teachers can use. No matter what approach teachers utilize, capturing student interest is an essential part of being an educator (Tomlinson, 2002b).

**Student learning profile**

Student learning profile can be defined as a student’s favored mode of learning (Tomlinson, 2003). This quality is influenced by many variables including intelligence preference, learning styles, culture, and gender. It reflects if a student likes to learn alone or in groups. It takes into account if a learner starts with the big picture and breaks it down or if that learner prefers to start with small ideas and work up to big concepts. Summed up, learning profile means how a student learns best (Tomlinson, 2003).

When considering learning profiles, teachers should remember a few guidelines (Tomlinson, 2001b). First, teachers themselves have learning profiles. Though it is easiest to teach in a manner in which you learn best, teachers should remember that some students do not share the same learning profile. Teachers should help students understand their own learning preferences and affirm the reality that each student is unique. Teachers in differentiated instruction classrooms can structure learning experiences that lend themselves well to various learning profiles. Teachers can also allow for student choice so that once students understand their own learning profiles, they can select assignments that match how they learn best. Again, these responsibilities require teachers to be students of their students. Educators who have a better understanding of how their students learn are better prepared to help their students on that journey (Tomlinson, 2001b).

Several strategies are compatible with teaching with student learning profiles in mind (Tomlinson, 2001b). Teachers can vary their presentations to include auditory,
visual, and kinesthetic approaches. They can also vary instruction to start with whole and
move to parts or to start with parts and build to whole. Teachers can also allow students
to express their understanding using assignments that reflect their preferred way of
expressing intelligence (Tomlinson, 2001b). Gardner’s (1983) eight or nine intelligences
including verbal linguistic, logical mathematical, visual spatial, musical rhythmic, bodily
kinesthetic, interpersonal, intrapersonal, and naturalistic can be used as away to think
about student intelligence preference. Sternberg’s (1985) three intelligences, analytic,
practical, and creative, can also be used in the same fashion. Other helpful strategies
include to differentiate based on learning profile include complex instruction, entry
points, or 4-MAT (Tomlinson, 2001b). Whichever strategies teachers use, it is important
to give students the opportunity to learn and to express what they have learned in the
ways that best suit their individual differences (Gray & Waggoner, 2002).

Curricular Elements

Not only do teachers interested in differentiated instruction have to keep in mind student characteristics, they also have to be aware of curricular elements that can be adjusted to match these student differences. Three main areas of concern are content, process, and product (Tomlinson, 1999b).

Content

Content can be defined as the input of instruction. It is what is taught and how students are given access to what is taught (Tomlinson, 2003). Though both can be differentiated, most teachers leave the what alone and vary how students gain access to content. Content can be differentiated according to any one of the three student characteristics described above (Tomlinson, 1999b).
Several strategies help teachers differentiate content according to students’ readiness, interests, and learning profiles. Tomlinson (2001b) refers to strategies including concept-based teaching, curriculum compacting, using varied text and resource materials, learning contracts, minilessons, and varied support systems. As teachers select the strategies they believe to be most appropriate for the situation, they should keep in mind that the goal of differentiating content is to provide multiple approaches to instructional input. In this way, teachers can meet students at their point of readiness and support their growth to higher levels of understanding (Tomlinson, 2001b).

Process

Process refers to the activities by which students make sense of the content that is taught. Teachers vary process when they provide multiple avenues for students to digest ideas (Tomlinson, 2003). Similar to content, process can also be differentiated on the basis of student readiness, interest, or learning profile (Tomlinson, 1999b).

When considering process, teachers in differentiated instruction classrooms must be careful to, first of all, make quality activities. It is important to remember that the purpose of an activity is not just to give students something to do (Tomlinson, 2003). Instead, activities should be carefully designed to be interesting, focused on essential elements of the curriculum, require high-level thinking, and cause students to make sense of the content to be learned (Tomlinson, 2001b). Once a quality activity has been created, then it can be differentiated in order to help accomplish the goal of maximizing student growth.

Process activities can be differentiated using several strategies including multiple intelligences, interest groups, graphic organizers, complex instruction, concept
attainment, learning logs, role-playing, cubing, creative problem solving, journals, cooperative controversy, mind mapping, and independent study (Tomlinson, 2001b). When choosing an appropriate strategy, teachers need to remember that the purpose of process differentiation is to provide a way for students to make sense of ideas in a way that works best for them (Tomlinson, 2003).

**Product**

In the context of differentiated instruction, product refers to any evidence of what a student has come to know, understand, or be able to do (Tomlinson, 2003). These products should be designed to represent what students have learned over a long period of time. Learning does not stop and then the products are completed. Rather, creating the product should require students to apply and extend what they have learned over the course of instruction (Tomlinson, 2001b).

Creating a high-quality product assignment requires teachers to follow important steps (Tomlinson, 2001b). First, teachers must focus on what knowledge, understanding, and skills they would like the product to reflect. Then teachers must chose between a variety of product formats. Next, teachers should clearly delineate and communicate expectations for the content of the product and how students should go about making the product. As students work, teachers must be careful to provide the support students need in order to meet these challenging expectations (Tomlinson, 2003). Once a quality product assignment has been prepared, only then should it be differentiated according to student readiness, interest, and learning profile. Teachers also have the option of differentiating product assignments by allowing student to make a proposal of their own design (Tomlinson, 2001b).
Teachers should keep several guidelines in mind when creating quality product assignments (Tomlinson, 2001b). First, product assignments should continue the learning process by requiring students to put what they have learned to use in a real world problem. Product assignments should also span a relatively long period of time and make use of several sources of information. Teachers can help students to avoid procrastinating on these long-term projects by setting up check-in dates and by training students on planning. Teachers must be open-minded and embrace various ways that students express what they have learned (Campbell, 2003). It is also important for teachers to keep in contact with parents so that they are aware of product expectations and due dates (Tomlinson 2001b).

Products can take a variety of forms including web pages, books, games, mimes, interviews, experiments, cartoons, demonstrations, songs, simulations, plays, newspapers, photo-essays, debates, video documentaries, poems, brochures, puppet shows, wall hangings, or monologues (Tomlinson, 2001b). Once the students have created their products, these products can be used as part of a teacher’s assessment for the student. Teachers can evaluate how the student worked on the product as well as the finished product itself (Campbell, 2003). The students can also present their products in a variety of ways that extend beyond a typical whole-class presentation. Tomlinson suggests using exhibits, sharing with groups of four, or presenting to key adults (2001b). No matter what the finished product format is chosen, students should be able to work on a product that allows them to demonstrate what they have come to know, understand, or be able to do (Tomlinson, 2003).
Differentiated Instruction Strategies

Throughout this paper, many strategies have been mentioned that can help teachers to differentiate instruction according to the student characteristics of readiness, interest, or learning profile and by the curriculum elements of content, process, or product. This final section of the paper will highlight several of these strategies in an effort to shed a little more light on what each selected strategy entails and how each strategy can be used to help students achieve their maximum potential in a general education classroom.

Anchor Activities

Students in differentiated classrooms will be working on different tasks and are likely to finish their assigned tasks at different intervals. Anchor activities provide a way for the teacher to ensure that each student constantly has something productive to work on. Anchor activities are tasks that students immediately begin working on when assigned work has been finished. Teachers can create a list of anchor activities, some of which may be suggested by students. It is important to make sure that each anchor activity is tied to essential knowledge, ability, or skills to be learned (Tomlinson, 2003).

Curriculum Compacting

This is a three step process that evaluates what a student knows about content to be taught, plans for learning missing content, and plans for efficient use of free time through enriched study (Reis & Renzulli, 1992). Students who already understand the material being taught can make better use of their time developing a deeper level of comprehension about the subject through accelerated study (Tomlinson, 2001b).
**Concept-based teaching**

This strategy organizes the curriculum around the essential concepts and principles of a discipline. Using concepts to guide instruction allows students to develop a framework on which to hang disparate facts to be learned. Teachers should be careful to allow students to define essential concepts and principles in their own words. Guiding students through the school year by using concepts provides a way for them to view instruction in a more coherent, memorable way (Tomlinson, 2003).

**Independent Projects**

This strategy builds on students’ interests by allowing students to select topics of their choosing to investigate. Upon the teacher’s approval, the student and teacher then plan how the student will investigate the topic and what the final product will look like. Teachers should make sure the product shows evidence of the student’s ability to apply what her or she has come to understand about the topic. This strategy can be highly motivating and allows students to learn in depth about subjects they find interesting (Tomlinson, 2001b).

**Mini-Lessons or Mini-Workshops**

This strategy allows students who perceive that certain students are struggling with some aspect of instruction to gather these students together for small-group instruction. Teachers can also open up the mini-workshops to other students who are interested in attending. Allowing advanced students to conduct a mini-lesson is another possibility afforded by this strategy. Teachers may find mini-lessons especially handy when students who are working on complex projects need an additional level of skill development to proceed with project completion successfully (Tomlinson, 2003).
**Interest Centers or Interest Groups**

These strategies are very similar to each other. The main difference between them is that interest centers are typically used with younger students while interest groups are often used with older students. With these strategies, students who have demonstrated mastery and completion of required work can opt to work in these centers or groups in order to study topics of special interest to them (Campbell, 2003). These centers or groups are an engaging way for students to use freed up time in a meaningful way by studying topics in which they have an interest. Teachers can allow larger blocks of time for advanced students who require more time to complete more in-depth study (Tomlinson, 2001b).

**Simulations**

This strategy provides a more authentic context in which students can complete assignments. These activities are designed to have students working just as experts in the real world would. As students complete the activity, they simulate what experts in the real world would do in order to solve a problem. Teachers who use this strategy allow students to be creative as they focus on essential learning (Tomlinson, 2003).

**Tiered Assignments**

This strategy allows the teacher to use varied levels of activities in a heterogeneous classroom. This makes it possible for students at various levels to benefit from the experience. Teachers who use this strategy are building on students’ prior knowledge and supporting students as they experience personal growth. This strategy helps to alleviate the problem of bored students on one end of the learning continuum and overtaxed students on the other end of the continuum. All students can work with
essential concepts, but at their own levels. Teachers should take advantage of this strategy’s flexibility in allowing the task to be adjusted by complexity, number of steps, and level of independence (Tomlinson, 2001b).

Process Logs

This strategy allows students to metacognitively reflect on a project as it is completed. Students can write down their goals for the project, rationale for these goals, progress toward the goals, and troubleshooting techniques as they work toward project completion. Teachers who use this strategy can use these process logs as a way to understand how students came to complete their finished projects (Tomlinson, 2001b).

The 4MAT System

This strategy makes use of the work of McCarthy who suggests that certain students differ in their preference for mastery of information, understanding of key concepts, personal involvement, or creating something novel (McCarthy, 1987). Tomlinson (2001b) encourages teachers to consider utilizing this strategy by creating lesson plans that provide for each of the four learning preferences. In this way, students can learn in their preferred modes or use their preferred modes to bridge to ones less familiar to them.

Flexible Grouping

Teachers in a differentiated instruction classroom can have the students work independently, as a whole class, or in groups. Grouping is flexible and can be interest-based or skills-based, heterogeneous or homogeneous. Students can select assignments or teachers can assign them. Teachers can match the task to student readiness, interest, or learning profile. This strategy gives students the chance to work with peers without
having to be labeled as advanced or struggling. Teachers must know the students well in order to assign groups and tasks that are a best fit for the learning situation (Tomlinson, 2001b).

*Thinking Maps*

Students who use thinking maps show their thinking processes in a visual way. This allows them to organize ideas and share how they have made meaning out of several ideas. Teachers can use thinking maps with small groups, the whole class, or individuals. This strategy may be an effective way to prewrite stories or plan projects. Teachers can use thinking maps as part of continuous assessment regarding students’ understanding of a particular topic (Tomlinson, 2003).

*Entry Points*

Individuals are more adept at using certain kinds of intelligence than others. Gardner (1983) pointed out at least eight of these intelligences including verbal linguistic, logical mathematical, bodily kinesthetic, visual spatial, musical rhythmic, interpersonal, intrapersonal, and naturalist. Since students have these different intelligence profiles, it makes sense for teachers to allow these students to explore a topic through their learning preference entry point (Tomlinson, 2001b).

*Learning Centers*

This strategy is also known as stations. Teachers collect materials on certain topics or involving certain practice skills. Assignments at the learning centers can be differentiated by readiness levels or learning styles. This strategy allows students to work at a level that challenges them and yet provides the opportunity for them to be successful. Teachers need to remember that not all students have to go to all centers. Those who
have already mastered the content of the learning center could use their time in more productive ways. Teachers should be careful to have clear directions and expectations posted at the centers (Tomlinson, 2001b).

*Varying Questions*

This strategy allows teachers to differentiate based on student readiness, interest, or learning profile by posing different questions to students at different levels during class discussions or on tests or quizzes. Teachers must be careful to ensure that each student is required to think at high levels. Students may benefit from wait time and from having the opportunity to share their thoughts with a partner before giving an answer in front of the whole class (Tomlinson, 2001b).

*Contracts*

A learning contract is an agreement between the teacher and a student. The teacher allows the student choices and freedoms about work assignments in exchange for the student’s commitment to use independent work time appropriately. This strategy allows students to work at their own pace and at a level of readiness appropriate for them. Teachers should be careful to clearly establish rules for the contract and enforce high expectations regarding the quality of student work (Tomlinson, 2001b).

*Starting Out Successfully*

After learning about the rationale for differentiated instruction, understanding what differentiation is and is not, and taking a glimpse of the many strategies that are compatible with differentiated instruction, it is obvious that making any classroom differentiated is a complex task. Teachers considering making these changes are likely to feel overwhelmed. However, the goal of maximizing the potential of each student is well
worth the effort (Tomlinson, 200b). Keeping a few guidelines in mind may help to get the process started in a manageable way.

*Introduce Administration to Differentiation*

Whether teachers like it or not, administrators have a lot to do with what goes on at school. If a teacher plans on rearranging much of what goes on in the classroom, administrators will notice the change and they deserve an explanation for what is happening. Enlisting the help of the building principal and even the school superintendent can go along way toward helping teachers accomplish their goal of differentiating instruction (Tomlinson, 1999b). Administrators who do not already support differentiation have to be shown how this approach to learning can help teachers become more effective as they guide students on their educational journey.

*Introduce Students to Differentiation*

Students are used to school being conducted in a certain way. Change is not easy for anyone, including the learners who will make up the classroom. It is not reasonable for a teacher to change all that the students have come to expect without providing some explanation for what the year will entail and why (Tomlinson, 2001b). Students need to understand the teacher’s rationale for differentiation and what a differentiated classroom will look like. Teachers can begin by helping students to understand that each student is unique and learns in different ways. Do to these differences, students in the classroom will be working on different things at different times. Students need to realize that fairness does not mean that everyone is treated in the same way. Rather, fairness means that everyone is given the work and the support they need in order to succeed as learners (Tomlinson, 1999b). Once teachers have this discussion with students at the beginning of
the year, they can begin to have the students help them establish procedures that will hopefully guide the class through a successful year of differentiated instruction.

*Introduce Parents to Differentiation*

As with students, parents are used to school operating in a certain way. In order to gain the support of parents who are a valuable ally, teachers must help them to see that teacher and parents alike are working toward the common goal of maximizing student growth (Tomlinson, 1999b). Since parents know that children develop at different rates and that each child is unique, teachers have to communicate to parents how these differences create the need for a new kind of instruction that reflects this uniqueness (Tomlinson, 2001b). Once parents start to understand that both teacher and parent can work together for the best interest of the students, teachers need to keep parents abreast of how their child is progressing towards both individual and grade-level goals (Tomlinson, 2001a).

*Introduce Differentiation to the Community*

No teacher alone can reach the heights of success that could be accomplished by employing resources outside of the school walls. Tomlinson (1999b) writes, “The world outside the classroom offers more opportunities than even the magical classroom” (p.106). A quality differentiated instruction classroom teacher will take advantage of these opportunities by building bridges with community members and organizations that have something to offer to the students. Teachers can take students out into the surrounding area or they can bring experts into the classroom in order to enrich the students’ experiences. Students can also make valuable contributions back to the community (Tomlinson, 2001b).
Teachers should be realistic

Teachers who are willing to undergo the changes necessary to make their classrooms compatible with differentiated instruction obviously have high standards for themselves and their students. These teachers need to be careful to set realistic goals that avoid overload and ensure success for both teacher and students alike (Tomlinson, 2001b). The important thing is not to completely change one’s entire way of teaching immediately. Instead, teachers can start small, get the help of colleagues, enlist the support of administrators, parents and community, and build on this foundation every successive year. In this way, differentiated instruction can become a life-long aspiration that can be accomplished step-by-step over a period of years (Tomlinson, 1999b). This process will be difficult yet rewarding. Tomlinson puts this in perspective when she writes:

Teaching is hard. Teaching well is fiercely so. Confronted by too many students, a schedule without breaks, a pile of papers that regenerates daily, and incessant demands from every educational stakeholder, no wonder we become habitual and standardized in our practices. Not only do we have no time to question why we do what we do, but we also experience the discomfort of change when we do ask the knotty questions. Nonetheless, our profession cannot progress and our increasingly diverse students cannot succeed if we do less. (p.11)

Teaching well is the responsibility of each educator. While differentiated instruction requires deep commitment and perseverance, it also provides a way to help teachers and students maximize their potential.
References


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