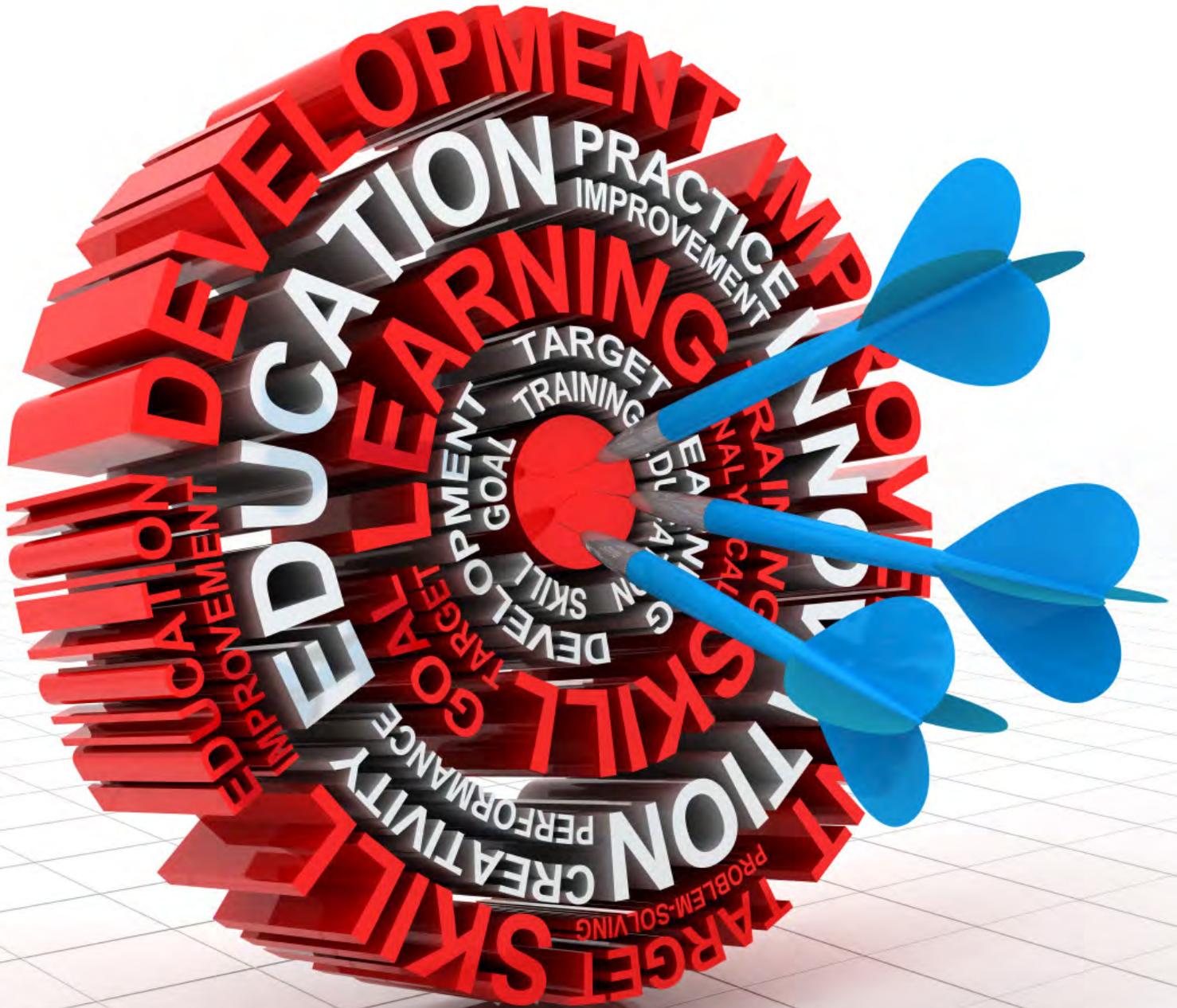


# Curriculum in Context

Spring 2013 • Vol. 39, No. 1

ISSN 2165-7882



**Improving Education through Innovation**

By Arthur Charity



# Waiting for Differentiation: Or, How I Learned to Stop Worrying and Love the Educational Factory

Moses saw the Promised Land from Mt. Nebo, but it was the Israelites who had to walk there – and that’s the trouble with visionaries. They win us over to their visions before anyone’s really sure how to make them come true. Over the past couple of decades several of the biggest names in educational theory – Lev Vigotsky, Howard Gardner and Carol Ann Tomlinson, among others – have shown us that one-size-fits-all teaching needlessly harms the self-esteem of many students, doesn’t produce the best results in learning and doesn’t even correspond to the structure of the brain (Tomlinson et al., 2003; Kapusnick & Hauslein, 2001). (This was an especially great achievement for Vigotsky, who has been dead for almost eighty years.) They’ve planted a phrase in the lexicon that’s now surely impossible to dislodge: “differentiated instruction.” We will do the best job for our students if we custom-tailor their education to their individual level of readiness for a given block of knowledge, to the personal interests that drive them, and to the environment and manner of instruction in which they learn most efficiently (Tomlinson et al., 2003) – if in our class of 30 students we teach 30 different ways.

Of course the big names are right – to the extent that that’s important. Learners are and always have been unique. We were fooling ourselves when we divided them into the talented and the untalented, the A-students and the D-students, while we taught to a single culture, a single readiness level and a

single learning style. That was like putting a microphone and the lyrics to *There’s No Business Like Show Business* in front of a hundred Nobel laureates and asking them to sing: You could easily persuade yourself most of them had no talent at all. Kolderie and McDonald (2009) point out that, in any event, the factory style of education was never chosen for its pedagogical value but for cost-effectiveness, because in the age of brick schoolhouses, chalk boards and unamplified teachers’ voices, there simply wasn’t a feasible way to tutor thirty separate individuals; you had to herd them together to achieve economies of scale. Now that we are more enlightened, and see a classroom of students as a collection of laureates-to-be, each evolving along his or her own path according to his or her own learning profile, is it any more feasible today? If resources in most American schools were already stretched thin, where can they find the extra time to plan and execute more stuff?

It’s good to stand back for a moment and grasp the scope of the planning required. Fortunately Tomlinson and her colleagues put together a pretty thorough list: A typical American classroom may contain “students with identified learning problems; highly advanced learners; students whose first language is not English; students who underachieve for a complex array of reasons; students from broadly diverse cultures, economic backgrounds, or both; students of both genders; motivated and unmotivated students; students who fit two or three of

these categories; students who fall closer to the template of grade-level expectations and norms; and students of widely varying interests and preferred modes of learning” (Tomlinson et al., 2003, p. 119-20). This diversity calls for instruction that varies in everything from content, difficulty and standards of assessment to the place, time and format in which the instruction takes place, and Tomlinson makes it plain that mere tinkering around the edges – throwing in a couple of pictures for visual learners, slowing the pace for students with disabilities – won’t do the trick (Tomlinson et al., 2003). She calls for differentiated instruction that is pre-planned rather than reactive, that creatively sorts and re-sorts classroom working groups, that varies both content material and pacing, and that’s practiced by teachers who have already solved their other challenges as teachers – who possess a “sound knowledge base and clarity of learning priorities” (Tomlinson et al., 2003, p. 133).

It’s quite a challenge, but you only need to take a brief stroll through the recent literature to find a small army of inventive, subtle educators who’ve gamely taken it up. The exercises they’ve developed frequently tackle two or three of the variants in students’ learning needs at once. Scigliano and Hipsky (2010) provide a better than average example. They propose that a teacher sign learning contracts with her students that assign them exercises in accordance with their strengths on Gardner’s scale of multiple

intelligences (*learning styles* – check!). Or pre-test students on their prior knowledge of an upcoming topic, then divide them into working groups according to their readiness, giving each group study materials that are tailored to be moderately challenging (*readiness* – check!). Or have each student take an interest inventory and then use what she’s learned from them to design a menu of final project possibilities, from which the students can choose the one that most interests them (*personal interests* – check!).

A recent book claiming to draw on the best practices of the best teachers (Breux & Magee, 2010) lovingly spells out twelve ways to differentiate, from “curriculum compacting” to “team teaching,” but mentions pithily and only in passing that “the hard work comes in the preparation.” Yes, and the 300-pound gorilla in the room is 300 pounds, and a gorilla.

Only rarely does a DI writer take on the issue of overstretched time directly, and revealingly (for reasons I will explain) it is often one who sees the potentialities of new software for both differentiation and efficiency (e.g., Stanford, Crowe, & Flice, 2010). Tomlinson herself (2004) suggests recognizing the student’s partial responsibility for seeking out work that meets his or her personal needs, thus holding out the hope of crowdsourcing differentiated instruction, but her own brief stroll through the literature, nine years ago, led her to conclude that even teachers who *thought* they were differentiating were doing less than was minimally necessary, that most teachers are mystified by flexible, student-centered classrooms, and that we don’t yet know how to train teachers to be any different (Tomlinson, et al., 2003). Differentiation, she said, would require a thorough transformation in thinking, a system-wide change in organization and, for teachers, “personal and professional discomfort and struggle” (Tomlinson, et al., 2003, p. 135).

Which leads me by a circuitous route back to the factory analogy for schooling. Educators, in general, have taken a dim and dismissive view of it (Nehring, 2007) – if not calling it Neanderthal and Dickensian outright, then suggesting as much with their eyes – but I think there may be some life in the old warhorse yet, especially as actual factories have undergone quite an amazing transformation themselves. Henry Ford once made a fetish out of standardizing his product (“Any customer can have a car painted any color that he wants so long as it is black”) but now you can customize

your car before you order it, right on your home computer. Starting in the 1980s many great industrial corporations set aside the one-size-fits-all assembly line mentality in favor of more flexible techniques with clever names such as just-in-time sourcing, lean and agile manufacturing and mass customization, and at least a few recent scholars coming out of fields such as information technology and organizational behavior (Kolderie & McDonald, 2009; Waslander, 2007) have begun to suggest putting those notions to work in an educational setting.

It has all been made possible by the data-processing and scheduling power of modern software – “until the IT revolution of the last decade,” say Kolderie and McDonald (2009, p. 5), “it was not economically feasible to produce customized products or services.” Now each order can be micromanaged individually as it goes through the manufacturing process – pulled off the main line at just the point where it needs to be custom-tailored, then put back when it can be treated like one more cut-cookie in the big batch, and generally shifted around from station to station to make it precisely what the customer wants. Workers no longer turn the same bolt, ad infinitum, like Charlie Chaplin in *Modern Times*; they move from task to task, letting the scheduling software choose how to make the best use of their time. By organizing in flexible shifts and stations, adjusting hour by hour to the current flow, yet taking advantage of economies of scale wherever possible, “mass customization” can make products that are competitive in cost with mass-produced items (Kolderie & McDonald, 2009).

The Department of Education’s RESPECT initiative – which is exactly the paradigm shift and systemic reorganization of education that Tomlinson and her colleagues called for – sounds in many ways as if it’s ingested the mass customization idea whole (U.S. Department of Education, 2012). The discussion document Secretary Arne Duncan released in spring 2012 proposes schools in which fixed classrooms are replaced by flexible workspaces where individuals or small groups can work on differentiated projects; in which teachers move in and out of teams and assignments to focus now on the needs of one troubled student, now on team-teaching a large class with a novice assisting, now on observing other “master teachers” to deepen their skills; in which the school day and year may vary from individual to individual; and in which the whole complicated system is

made manageable through the same dense, continuous stream of data on the needs and condition of each order (in this case, each student) – doled out to workers in the form of continually updated work schedules and to-do lists – that you find in the computerized factory. “High-quality data measuring student learning would be made available and accessible to teachers on an ongoing basis – in real time where appropriate,” says the document (U.S. Department of Education, 2012, p. 4) in language that might, with the alteration of a few words, have come right off the bulletin board of a Toyota assembly plant. “Teachers would be trained on how to use the data to inform and adapt instruction hour-to-hour, day-to-day, and year-to-year.”

Just as the city fathers in 1850s New England looked at their red-brick factories making guns and boots and then at their red-brick schoolhouse and hit on the pregnant notion “that the enterprise in all three buildings was essentially the same” (Nehring, 2007, p. 426), the advocates of differentiated instruction might be smartest to rest their hopes on mimicking the very latest and most modern means of economic production. Our vision of DI may be practical after all, but our schools aren’t enough like a good factory to bring it off yet.

## References

- Breux, E., & Magee, M. B. (2010). *How the best teachers differentiate instruction*. Larchmont, NY: Eye on Education.
- Kapusnick, R. A., & Hauslein, C. M. (2001). The “silver cup” of differentiated instruction. *Kappa Delta Pi Record*, 37(4), 156-59.
- Kolderie, T., & McDonald, T. (2009). *How information technology can enable 21st century schools*. Washington, DC: Information Technology and Innovation Foundation.
- Nehring, J. H. (2007). Conspiracy theory: Lessons for leaders from two centuries of school reform. *Phi Delta Kappan*, 88(6), 425-432.
- Scigliano, D., & Hipsky, S. (2010). Three ring circus of differentiated instruction. *Kappa Delta Pi Record*, 46(2), 82-86.
- Stanford, P., Crowe, M. W., & Flice, H. (2010). Differentiating with technology. *Teaching Exceptional Children Plus*, 6(4).
- Tomlinson, C. A. (2004). Sharing responsibility for differentiating instruction. *Roeper Review*, 26(4), 188.
- Tomlinson, C. A., Brighton, C., Hertzberg, H., Callahan, C. M., Moon, T. R., Brimijoin, K., . . . Reynolds, T. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, 27(2-3), 119-145.

U.S. Department of Education. (2012). *The RESPECT project: Envisioning a teaching profession for the 21st century*. Washington, DC: Author.

Waslander, S. (2007). Mass customization in schools: Strategies Dutch secondary schools pursue to cope with the diversity-efficiency dilemma. *Journal of Education Policy*, 22(4), 363-382.

Arthur Charity is an author, reporter, and blogger. He is currently earning his teaching license in the Alternative Routes to Certification program at Seattle Pacific University.

*Tacoma Public Schools and Washington State ASCD present two Leadership Seminars*

An Evening with Jamie Vollmer

## The Great Conversation: Building public support for public schools one community at a time...



### *About Jamie Vollmer*

Jamie Vollmer is president of Vollmer, Inc., a public education advocacy firm working to increase student success by raising public support for America's schools. Jamie is the author of the highly acclaimed book, *Schools Cannot Do It Alone*, one of the "top ten books of the year" according to the American School Board Journal. He received the 2012 *Friend of Public Education* award from the Ohio Federation of Teachers, and the 2010 *Learning and Liberty* award presented by the National School Public Relations Association. Both awards were given in recognition of his twenty year effort to strengthen school/community partnerships.

With a background in law and manufacturing, Mr. Vollmer entered the education arena in 1988 as a founding member of the Iowa Business Roundtable. He was, at the time, president of the Great Midwestern Ice Cream Company, proclaimed by *People* magazine as the "Best Ice Cream in America!" In 1990, he changed careers to become the Business Roundtable's Executive Director.

**Thursday, March 28, 2013**

**5:30-7:30 p.m.**

Wilson High School Auditorium

1202 N. Orchard Street

Tacoma, WA 98406

Registration fee for seminar: \$20

Clock hours will be available onsite for \$5 (cash only)

To register, [click here for PDF form](#).

Jamie Vollmer is an award-winning advocate of public education. He has worked for the past twenty years to help schools and their communities remove the obstacles to student learning, both in and out of school. His goal is to help public schools and the communities they serve create a climate that supports rising student achievement.

Vollmer teaches his audiences how to effectively implement a public engagement strategy called The Great Conversation. This coherent, comprehensive program is designed to produce the prerequisites of student success:

- *Community understanding* of the challenges facing our children and our schools,
- *Community trust* in their local schools to accomplish the goal,
- *Community permission* to make the changes needed to teach all children to high levels, and
- *Community support* throughout the complex and emotional restructuring process.

Audience members will learn what they can do to improve local conditions for student learning. They will gain a practical understanding of the positive steps they can take to engage all community members – with and without children in school – in the creation of schools that unfold the full potential of every child.

*See page 21 for the second Leadership Seminar with Dr. Harvey Alvy*