Annotated Bibliography of Theory and Research Related to Differentiation of Instruction

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Theory that Informs Differentiation

Amabile, T. (1983). *The social psychology of creativity*. New York: Springer-Verlag.
By helping students discover and pursue their interests and passions, we can maximize their engagement with learning, their productivity, and their individual talents.

Banks, J. (1994). *Multiethnic education: Theory and practice*. Boston: Allyn and Bacon.
Particular Instructional materials, curriculum, staff attitudes and beliefs, policies, teaching styles, assessment procedures, and other facets of schools may be more advantageous to members of some gender or cultural groups and disadvantageous to others. As a result teachers may misalign learning opportunities.

Berliner, D. (1984). *Research and teacher effectiveness. Making our schools more effective: Proceedings of three state conferences*. San Francisco: Far West Laboratory.
Student achievement is not likely to improve when teachers ask students to practice what they already know. Student achievement is also likely to be negatively impacted when teachers ask students to complete tasks that cause the students ongoing frustration.

Berliner, D. (1988). *The development of expertise in pedagogy*. New Orleans: American Association of Colleges for Teacher Education.
Student achievement is not likely to improve when teachers ask students to practice what they already know. Student achievement is likely to be negatively impacted when teachers ask students to complete tasks that cause the students ongoing frustration.

Bransford, J. D., A. L. Brown, et al., Eds. (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
When students encounter tasks at moderate levels of difficulty they are more likely to sustain their efforts to learn even in the face of difficulty than when tasks are too difficult or under-challenging.

Bruner, J. (1961). "The act of discovery." *Harvard Educational Review, 31*, 21-32.
When interest is tapped, learning is more likely to be rewarding and students are more likely to become autonomous learners.

Byrnes, J. (1996). *Cognitive development and learning in instructional contexts*. Boston: Allyn and Bacon.
Instruction must always be in advance of a child's current level of mastery for growth to occur.

Collins, M. and T. Amabile (1999). *Motivation and creativity*. In R.J. Sternberg, *Handbook of Creativity*. New York: Cambridge University Press, 297-312.
By helping students discover and pursue their passions, we can maximize their engagement with learning, their productivity, and their individual talents. High levels of intrinsic interest

set up conditions for creative production. One approach is to allow students to choose their own topics for projects.

Csikszentmihalyi, M. and I. Csikszentmihalyi, Eds. (1988). *Optimal experience: Psychological studies of flow in consciousness*. New York: Cambridge University Press.
Theory of flow: a state of total absorption that comes from being lost in an activity that is so satisfying that the participant loses track of time, weariness, and everything else but the activity itself. Flow requires that the participant be interested in the activity in which he or she is engaged.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper and Row.
Conditions for flow are clarity about purposes and the participant's sense that the task is within his or her capacity to act. Flow encourages the participant to seek out new challenges to grow. Interests foster skills needed to develop talent. Flow is the strongest predictor of student engagement and of how far he or she progresses in a content area.

Csikszentmihalyi, M., K. Rathunde, et al. (1993). *Talented teenagers: The roots of success and failure*. New York: Cambridge University Press.
For teenagers to become committed to developing their talents there must be a match between the complexity of tasks developed by teachers for students and the individual skill level of the students. Students whose skills are under challenged demonstrate less interest in and involvement in learning activities and a lessening of concentration. Students, whose skills are inadequate for a task, demonstrate low achievement and a lowering sense of self-worth. Teachers effective in developing talent attend to student readiness levels. A second key to talent development is student interest in the task.

Delpit, L. (1995). *Other people's children: Cultural conflict in the classroom*. New York: The New Press.
Instructional materials, curriculum, staff attitudes and beliefs, policies, teaching styles, assessment procedures, and other facets of schools may be more advantageous to members of some economic or cultural groups and disadvantageous to others. As a result teachers may misalign learning opportunities if they use the same materials and procedures with all students. This can undermine the academic success of students for whom the materials and procedures are not a match.

Fisher, C., Berliner, D. et al. (1980). *Teaching behaviors, academic learning time, and student achievement: An overview*. In C. Denham and A. Lieberman, *Time to learn*. Washington, DC: National Institutes of Education: 7-32.
There is a relationship between student achievement and a teacher's ability to diagnose the student's skill level and prescribe appropriate tasks. When students work at a high success rate, they feel better about themselves and the subject they are studying, and they learn more.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
Human intelligence manifests itself in many spheres. Teaching should attend to an individual's intelligence preferences to enhance achievement.

Gilligan, C. (1982). *In different voice: Psychological theory and women's development*.

Cambridge, MA: Harvard University.
A person's gender may influence how he or she looks at and interacts with the world. When a person is socialized to act one way, and the classroom promotes a different way of interacting, a mismatch occurs and learning may be hampered.

Grigorenko, E. (1997). "Are cognitive styles still in style?" *American Psychologist, 52*, 700-712.
While learning preferences vary over time and place, they are probably biologically based to some degree. Matching learning style preferences and conditions of learning is one way to improve learning.

Hennessey, B. and S. Zbikowski (1993). "Immunizing children against the negative effects of reward: A further examination of intrinsic motivation training techniques." *Creativity Research Journal 6*, 297-308.
Student motivation can be maintained over time if adults maintain environments where learners feel free to exchange ideas and share interests.

Howard, P. (1994). *An owner's manual for the brain.* Austin, TX: Leornian.
Brain researchers explain that learning occurs when the learner experiences neither boredom nor anxiety—in other words, is neither over- or under-challenged.

Hunt, D. (1971). *Matching models in education.* Ontario, CA: Institute of Studies in Education.
More effective learning takes place when the amount of task structure provided by a teacher matches a student's level of development.

Jackson, A. and G. Davis (2000). *Turning points 2000: Educating adolescents in the 21st century.* A report of the Carnegie Corporation. New York: Teachers College Press.
Effective teachers in contemporary classrooms will have to learn to develop classroom routines that attend to, rather than ignore, learner variance.

Jensen, E. (1998). Teaching with the brain in mind. Alexandria, VA: Association for Supervision and Curriculum Development.
Brain researchers explain that learning occurs when the learner experiences neither boredom nor anxiety and is neither over- or under-challenged.

Jensen, A. (1998). The g factor and the design of education. Intelligence, instruction, and assessment: Theory into practice. R. J. Sternberg and W. M. Williams. Mahwah, NJ: Lawrence Erlbaum, 111-132.
The best learning environments offer a large variety of choices, allowing students the opportunity to discover their interests and talents.

Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African American children.* San Francisco: Jossey-Bass.
Curriculum and instruction that matches learning style and intelligence preference of students from diverse cultures has positive has positive impacts on learner outcomes.

Lasley, T. and T. Matczynski (1997). *Strategies for teaching in a diverse society.* Belmont, CA: Wadsworth.

A person's culture shapes all aspects of a person's life When a person is socialized to act one way, and the classroom promotes a different way of interacting, a mismatch occurs and learning may be hampered.

McLaughlin, M. and J. Talbert (1993). *Contexts that matter for teaching and learning: Strategic opportunities for meeting the nation's educational goals*. Stanford, CA: Center for Research on the Context of Secondary School Teaching.
Equality of opportunity only happens when students receive instruction that is suited to their needs. This enables them to maximize their growth.

Schlechty, P. (1997). Inventing better schools: An action plan for educational reform. San Francisco: Jossey-Bass.
The appropriate question in today's diverse classroom is not "how can I motivate students?" Rather, it is "What motivates this particular student and how do I design work that is responsive to these motivations?"

Sousa, D. (2001). *How the brain learns*. Thousand Oaks: CA, Corwin.
Students should work at a level of "moderate challenge" for optimal learning to occur.

Sternberg, R. J. (1985). Beyond IQ: *A triarchic theory of human intelligence.* New York: Cambridge University Press.
Human intelligence manifests itself in many spheres. Teaching should attend to an individual's intelligence preferences.

Tannen, D. (1990). *You just don't understand me: Women and men in conversation*. New York: Ballentine.
Gender may influence how individuals look at and interact with the world. When a person is socialized to act one way, and the classroom promotes a different way of interacting, a mismatch occurs and learning may be hampered.

Vygotsky, L. (1962). *Thought and language*. Cambridge, MA: MIT Press.
One of Vygotsky's seminal works that discusses the idea of the Zone of Proximal Development, in which, for optimal learning to occur, students must work at a level that is just beyond the level at which they can work independently. Students need peer or adult support to succeed at the next level of challenge.

Vygotsky, L. (1978). *Mind in Society*. Cambridge, MA: Harvard University Press.
One of Vygotsky's seminal works that discusses the idea of the Zone of Proximal Development, in which, for optimal learning to occur, students must work at a level that is just beyond that which they can do independently. It is the responsibility of the teacher to create learning situations aligned with an individual's zone of proximal development and to provide support for success at that new level of challenge.

Wolfe, P. (2001). *Brain matters: Translating research into classroom practice*. Alexandria, VA: Association for Supervision and Curriculum Development.
Students should work at a level of "moderate challenge" for optimal learning to occur.