Talent Development in Economically Disadvantaged Populations

by Laurence Coleman

There are no known limits to the kinds of talent [the human psyche] can demonstrate and to the heights to which it can climb in any talent domain. But the mind is not motivated to achieve every possible form of excellence. The cultural milieu makes that decision in the broadest possible sense. (Tannenbaum, 2000, p. 24)

Talent development is a complex phenomenon. The quote from Abraham Tannenbaum captures the basic assumption of the article about the relationship between talent development and context. The milieu in which a person finds him- or herself influences development. It is not simply a personal decision or an inevitable innate directive that leads to the development of talent. Where and in what time frame are contextual elements that significantly influence talent development? Assertions that maintain a simple unambiguous connection between potential and talent are wishful thinking. The culture, the family, the school, and other societal forces influence the development of talent by the experiences and expectations they place on students (Simonton, 2005).

Information about talent development has wide acceptance among scholars (Feldhusen, 2003; Howe, Davidson & Sloboda, 1998; Subotnik & Coleman 1996), yet it is not

as familiar to general audiences and many educators. The purpose of this article is to summarize what is generally known about talent development and schooling by stating some propositions about what might be the way such programs are structured. This article sets the stage for a series of stories of programs that attempt to address the challenge of talent development in diverse low-income populations.

The article has three parts. Part 1 contains statements illustrating the complexity of talent development, Part 2 analyzes models underlying the organization of schools, and Part 3 presents implications for program development.

In this paper, *talent* is defined as a propensity for advanced development in a specific domain that reaches fruition in a small percentage of people who work in that domain. *Talent development* is the process describing how people become talented. A *domain* is defined by persons who work in that area, by their recognition of others' work as belonging to that area, and by their ability to distinguish among varying levels of accomplishment. Each domain has its own meanings or rules of operation that are shared by members who possess that talent.

The Complexity of Talent Development

Six statements, considered individually or collectively, illustrate the intricacy of the phenomenon of talent development. These statements are updated interpretations of earlier work (Howe et al., 1998; Subotnik & Coleman, 1996) and are intended to correct popular misconceptions, as well as emphasize the complexity of talent.

Talent is not randomly distributed. Talent is present in all populations. This may be inferred from the opening quote. Specific talents appear unevenly among populations and societies. Many reasons have been postulated to account for this phenomenon. Some aspects of native endowment are more conducive than others to development of talent as some environmental circumstances are more amenable to the development of a specific talent than others. For example, talents with computer language cannot exist in a nomadic society or preindustrial society, but talent with abstract symbols (Egyptian, Incan) was possible in some agrarian societies.

Acknowledge the existence of windows of opportunity critical to talent development. A person is fortunate to be in a situation where there is a match between his or her talent potential and the opportunity for learning in an area (Feldman, 1994). The opportunity is most fortuitous when it occurs at a crucial time in the development of a specific talent. Missing a crucial time for fostering a talent means the chance of achieving advanced development is inhibited. A clear example is that the opportune time to learn a foreign language without an accent is when one is in early elementary school. In American society that is a rare occurrence, and few attain that level of linguistic competence. Thus, examples of this kind of linguistic talent are rare.

Lack of opportunity has a restraining effect on future development, too. Not only does the person get left behind in the early stages of mastering the talent, but also should the person strive to "catch up" in a talent area, the time needed to do that limits opportunity to access situations along with those with the developed talent. The missed opportunity can be made up only with great effort. In a recent study, Coleman (2005) described children who were bright but educationally malnourished, struggling to catch up mathematically because their environment had not provided them with opportunity to learn prealgebra. This limited further educational opportunities and possibility for success in situations that assumed the presence of those skills.

Dismiss the equipotential hypothesis. Equal potential is the idea that everyone has potential for advanced development in a talent area, given enough time. The potential might be there over the long haul, but when looking at the actual functioning of people, we see that individuals are not equally ready at the same time for learning more complex information or skills. In order to be responsive to this variation in children, the school must provide different opportunities for children at the time they are ready for it. Waiting for all to be ready actually distorts the development of many persons with the highest potential who are ready to learn more (Robinson, 2003).

Assessing general ability is not a measure of specific talent. General ability refers to a broad set of abilities. Talents involve specific abilities, which are more or less related to general ability. Measures of general ability can significantly underestimate more specific abilities. Stanley and his colleagues have amply illustrated that general cognitive ability is an inadequate indicator of advanced specific ability in math and the specific measures are better predictors of later development (Gagné, 2005; National Research Council, 2002).

Ethics are an implicit component of talent development. Talent development is never neutral. Some talents are rewarded more than others at a given time and culture. As Plato was

supposed to have observed, a society cultivates that which it honors. So, some talents are rewarded and others are regarded as less worthy. A false notion is set up that advanced development is a statement of the worth of persons (Gardner, 1961). In other words, those with "it" are better people. Ethics are also stretched when a person who is recognized as an expert in one area is given the license to be an expert in an area for which he or she has no special talent. We have all witnessed experts in one field being asked for their view in another for which they have no special inside knowledge.

Talents are fragile and fickle. Having begun the development of a talent and being in supportive environments does not guarantee that the talent will be developed or realized. Csikszentmihalyi, Rathunde, and Whalen (1993) make it obvious that many factors can influence the process. Once again environmental circumstances, as well as poor decisions, can thwart talent development.

The implication of these statements is that the development of talent is neither simple nor inevitable. Some conditions are more conducive to the encouragement of talent than others. Schools play such a role.

Models Underlying the Organization of Schools

Schools are a common environment in which children are required to attend. An analysis of schools reveals three educational models are operating in our schools (Coleman & Cross, 2005), which have resulted in schools being organized in a manner that has a differential effect on the development of talent. The models are the whole child educational model (WCM), the talent/multiple abilities model (TMM), and the basic skill educational model (BSM; see Table 1). The models have different orientations to factors involved in talent development. More specifically, they have different answers to these questions:

1. What is the purpose of education in terms of long-term goals?
2. When is it most appropriate to begin instruction?
3. How does development takes place?
4. What is the child's role in developing talent?
5. How is ability regarded?
6. Where does creativity fit into the curriculum?
7. What is the teacher's role?
8. What expectations are teachers to have about student learning?
9. Who is responsible for lack of growth in a learner?
10. What is the place of evaluation?
11. What are the implications of the preceding ideas for program organization and orientation?
12. Where are the resources?

Among the three models, the TMM is the one that is oriented toward the maximization of talent. In fact, it is the goal of the model. The TMM seeks to uncover talents in individuals as early as possible. The child's commitment to development of the talent is expected to be high. Abilities that are indirectly related to the talent receive less emphasis. Maximum development in a talent area is expected to occur for any child. Evaluation is varied and frequently public. Creative ability is expected to emerge as the child becomes increasingly competent in the talent. The teacher is presumed to be an expert who will have a long-term involvement with the child and will pass the child on to another teacher when it is appropriate for that child. Lack of progress is thought to be the teacher's fault. The program structure implied in this model is individually oriented and instruction is geared toward mastery and eventually reaching the upper boundary of that talent area.

The other two models are different. Talent development in the whole child model and the basic skills model is localized in the school years and is related to general age and grade norms. School entrance is the time to recognize advanced development. The discipline or talent area is rarely encouraged, especially when it is outside the standard curricula. Individualization and encouragement of creativity are expressions of intent in these models, but the group norm determines how it is encouraged. The WCM promotes balanced development and is open to a variety of experiences for youngsters. Indications of imbalance, such as creativity or learning beyond age and grade norms, are cause for concern and are corrected by ignoring, discouraging, or devaluing the imbalance.

The BSM is concerned primarily with making certain that children master reading, arithmetic, and writing; other curricular areas are of less concern. Creativity is of minimal concern. The basic skills model loses interest in the child when the child reaches age norms.

The three models shape environments and the experiences children have in school. It is apparent that the WCM and the BSM are operating in most American schools. The TMM advocates attention to individual differences that spawns rhetoric in schools, but few schools insert aspects of the model into the administrative and instructional structure. The exceptions are special schools that are oriented to particular disciplines or groups of disciplines such as science,

Table 1
Contrasting Educational Models

Attributes	Talent/Multiple Abilities	Whole Child	Basic Skills
Long-term goals	Maximize talents of person	Maximize whole person	Maximize mastery of basics, narrow the range
Beginning instruction	Informal, explorative, early as possible, individually oriented	Formal, school entrance, group oriented	Formal, school entrance, academics first, group
Developmental rate learning	Field-specific	Age/grade-specific	Age/grade-specific, basic skills
Child's role	Active, involved	Passive, involved	Passive, involved
Attitudes toward ability	Proactive, mastery	Reactive, balanced	Reactive, mastery of skills by group over individual, narrow the range
Creative potential	Province of masters in field, increases with competence	Normal, distributed, emerges in most situations	Irrelevant to mastery of skills, encourage afterwards
Teacher role	Expert, few teachers with multiyear contracts	Generalist, different teacher yearly	Manager and trainer, different teacher yearly
Teacher expectations	Child is committed, complete mastery	Some will, some won't do it, mastery related to chronological age	All children must reach minimal level, raising the lowest third of class comes first
Lack of growth	Teacher fault	Child, family, prior teacher fault	Educators' fault
Evaluation	Frequent, encouraging, immediate, relative to task	Infrequent, delayed, relative to age/grade	Frequent, age-grade related, mastery, high stakes
Implication for programs	Primary instructional, individually oriented	Primarily administrative, group oriented	Primarily administrative, group oriented
Resources	All that is possible, sacrifice is worth it	All that is available	Enough to meet the standards

Note. From *Schooling the Gifted* (p. 275), by L. J. Coleman, 1985, Menlo Park, CA: Addison-Wesley.

art, humanities, or mathematics. Those schools seem to be more ready to accept aspects of the TMM model. Among the three models, the BSM seems to be on the federal educational agenda today. Taken together, the whole child model and basic skills model place more restrictions on talent development than the TMM.

Implications of the Complexity of Talent Development and Models of Schooling for Economically Disadvantaged Children

Misunderstanding talent development and the acceptance of a particular educational model has implications for the development of talent in economically disadvantaged learners. The statements and models just presented make it clear that many factors can influence development and undermine learning. The forces, grouped by the categories of class, ethnicity, gender, and race, have been well documented as influencing normal child development. In some form or manner, these forces interact to produce two significant problems in the development of talent in economically disadvantaged youth: an achievement gap and their underrepresentation among academically talented youth (National Center for Educational Statistics, 2003; O'Connell-Ross,1993). These two problems have propelled the field to work to solve them. Some solutions have emerged in the form of programs, many of which have been funded by the Jacob Javits Education of Gifted and Talented Education Program.

The information on talent just reviewed provides us with some idea of what conditions are conducive to development. On the broadest level the findings imply that in order to develop talent, schools are advised to move toward the talent/multiple abilities model. More specifically, resources need to be reallocated in schools to be in tune with talent development. Schools must recognize that measures of ability are not fixed. Responsiveness to where the learner is in terms of interest and level of functioning is crucial and is best to happen early. Assessment and teaching go hand-in-hand in developing talent. Teachers or mentors who have expert knowledge in a talent area must have access to students. When students are ready for advanced work, the system must be flexible enough to match the student to the appropriate teacher, mentor, or coach. Opportunities to interact with others of comparable interest and ability are important for sustaining advanced development.

More specifically, the steps for schools to follow are:

Find Students

- Identify students with potential,
- recognize the difference between educational malnourishment and low ability, and
- look for specific manifestations of talent as early as possible.

Organize Programs

- Place children together who have similar talents,
- provide guidance to deal with the pressures in opposition to academic learning and achievement,
- provide teachers who are highly knowledgeable,
- encourage children to move along at an advanced pace, and
- eliminate artificial barriers to access to advanced learning such as age grouping rather than achievement or interest grouping.

Curriculum

- Encourage children to experiment with ideas,
- expose children to the wealth of ideas that are in the world,
- look for gaps in development and fill them by working from strengths,
- confront students' incomplete and incorrect notions about content,
- develop metacognitive strategies in students,
- provide multiple opportunities to learn and the resources to make it happen,
- make initial learning fun and move toward more discipline-based learning as students become committed to the area, and
- reward action more than intention.

Outside the School

- Encourage families to support child talents, and
- build support networks in the community and school such as mentors, clubs, and so forth.

Summary

Talent development among economically disadvantaged youth is a complex process. If we are to tackle the problems of the achievement gap and underrepresentation and promote academic talent, then we need to change our programs to be more in consonance with the principles of talent development. GCT

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