On Talent Development: A Conversation with Benjamin Bloom

RONALD S. BRANDT

What led you to study the development of immensely talented people?
I've been studying learning for over 40 years. My first set of studies involved differences among the states. We found that states varied enormously in the kind of learning they produced—and that the differences were quite stable. States that were low in—say—1940 were still low 40 years later.

Then we did similar studies internationally, trying to understand why students learn so much better in some countries than others. After that we studied extremes, for example, comparing learning when there was a teacher for 30 students with results when each student was tutored by a very capable teacher. In these many studies we were finding very positive effects of excellent conditions of learning in the home and the school—how teachers teach, and so on. I decided that the best way to understand the utmost limits of learning would be to study people who had continued to learn over many years and had become tops in their field. So this study of talent development is one of a long list of studies I had planned for many years.

At first impression it seems quite different from your usual focus. You have emphasized mastery learning, which is intended to equalize educational attainment. It would seem that it's quite a different matter to investigate the development of a small group of extremely successful people.

I firmly believe that if we could reproduce the favorable learning and support conditions that led to the development of these people, we could produce great learning almost everywhere. The basic differences among human beings are really very small. On some kinds of learning we differ very little, but in others we differ greatly—especially for the types of learning that require enormous time, motivation, and the like. For example, our pianists studied an average of 17 years to become internationally famous concert pianists. It's very rare to find anybody devoting 17 years to any kind of continuous learning.

You're not saying that given the right circumstances, just anybody could be a great pianist or neurologist, are you?
I don't really want to go that far. I would say that if the love of music is inspired in a country, then all the people in that country will learn music. For example, almost all Hungar-
ians learn to love the music of that
country and learn to sing and play it
very well. That doesn't mean that we
have that many Hungarian concert
pianists. In every nation and every
endeavor, some excel over others be-
cause they put more of themselves
into it. The point is that under favor-
able learning conditions most people
reach a high level of excellence. What
we need to consider is how to get
virtually all to love music, to enjoy art,
to learn mathematics, or whatever.

An unavoidable problem with the
kind of retrospective research
you've conducted is that there are
not, and cannot be, control
groups. Is it possible that other
children raised in similar ways
are less successful and that the
people you studied actually suc-
cceeded because of some undis-
covered factors?

Well, I think the study tells us some
general things that apply across the
board. We at one time thought that the
development of a tennis player would
be very different from the develop-
ment of a concert pianist or a sculptor
or a mathematician or neurologist.
What we've found is that even though
the content and the procedures may
be enormously different in each field,
there is a common set of characteris-
tics in the home, the instruction, and
the like. There is a very general pro-
cess that seems to be central to the
development of talent no matter what
the field. My students at Northwestern
University are now studying other tal-
ent fields such as poets, authors, and
concert singers, among others, and
they're finding much the same pro-
cesses at work.

It is quite true that we've only stud-
ied the successful people and haven't
asked much about the unsuccessful.
However, we did study a small group
of people who didn't quite make it to
the highest level, and we found that
there were a number of chance or
accidental conditions that seemed to
get in the way. For example, one per-
son was as good by age 15 as the best
of our tennis players, but when he
chose a college he didn't inquire
about the tennis coach. When he ar-
ived at the college he was amazed to
find that it did not have a good tennis
coach. That sort of thing didn't happen
to the extremely talented people we
studied. Each new step was planned
very carefully with the help of former
teachers, experts in the field, and the
parents.

What I'm saying is that two individ-
cals can be at almost the same level at
age 15 but one goes on to the champi-
onship and the other doesn't because
of certain learning and support condi-
tions.

What should parents know as
a result of your study? What
can educators help them under-
stand about developing talented
children?

What we're finding is that parents'
own interests somehow get communi-
cated to the child. I guess it's a little
like the way religious parents' interest
in religion gets communicated to their
children. They don't ask their 5-year-
old, "Would you like to learn the
various things you need to learn to be
a religious person?" We don't ask a
child, "What mother tongue would
you like to learn?" Everybody takes it
as natural that if the parents' major
language is English, the children will
learn to speak English. Similarly, we
found that the talent which was later
developed so highly—music, for ex-
ample, or swimming—was something
that the parents thought was "natural"
for their children to learn and enjoy.

But it went beyond that. We found
over and over again that the parents of
the pianists would send their child to
the tennis lessons but they would take
their child to the piano lessons. And
we found just the opposite for the
tennis homes.

Your book also says, I think, that
parents of these highly talented
people had strong achievement
motivation.

Yes, we found that almost all the
parents embraced the work ethic.
They insisted on things being done
well. They expected that one should
work before one plays, that one always
tries to do his or her best, and that
each try should be better than the one
before. Virtually all these parents
seemed to embrace this idea and to
communicate it to their children.

Do your findings suggest ways
educators can develop the talents
of the children they teach?

Well, they do a very good job in
sports. There's nothing we can tell
teaches in high schools and colleges.
But when we get beyond sports, things
are sporadic, accidental. Students may

have a good teacher one year and a
very poor one the next. And even in
the academic subjects, all kinds of
chance circumstances are at work.

For example, our mathematicians
had great difficulty with teachers who
insisted that they must learn math
exactly as it was written in the book. A
student may have been doing calculus
on his own while he was expected to
learn algebra by rote. Schools do not
seem to have great tolerance for chil-
dren who are out of phase with other
students in their learning process.

Are there other things educators
can gain from this knowledge of
how people develop talent?

When educators try to develop tal-
ent, they often go about it by looking
for the one in a hundred or the one in
a thousand rather than expecting that
virtually all can learn a particular talent
field satisfactorily, and that the best
will go even further. I think schools
are wrong if they are highly selec-
tive in providing special learning
experiences.

Are you saying it's not a good idea
to use screening devices to identi-
fy talented students?

I am not opposed to screening de-
vices to discover talent in order to do
something about it as long as the
instruments measure performance
and achievement rather than particu-
lar "aptitudes." We in this country
have come to believe that we can tell
who is going to become a great musi-
cian by giving musical aptitude tests,
who's going to be a great mathe-
matician by giving mathematics aptitude
tests. Doing that counts some people
in and others out far too early.

What is a better approach?

All the children should be given
opportunities to explore fields that
they might be interested in. Then
gradually the students can narrow
their interests to particular fields,
learn them to a high level, and devel-

do a long-term commitment to one or
more talent fields.

I believe your research found that
those who become highly talent-
ed in a field were usually intro-
duced to that field in a playful
way. Does that suggest that chil-
dren's encounters with school
subjects should be playful at first?

Alfred North Whitehead wrote
about that in 1929 in The Aims of
Education, and we discovered it when
we were about halfway through our study. Whitehead believed that there are rhythms of learning. For example, no matter at what age you start learning science, you should begin to learn it playfully, almost romantically, with wonderful teachers who make it exciting and interesting. Then, one moves to what Whitehead called the stage of precision, where you learn the underlying principles and develop great accuracy and skill in the field. That allows you to move to a third level, where a master teacher helps you to develop new ways of looking at the subject, new ways of participating in it, and your own unique style in the field.

Whitehead thought this had nothing to do with age; it had to do with the way you introduced a subject like mathematics to any learner. In most schools, we ignore what Whitehead was trying to tell us. We begin almost all instruction with precision and accuracy when we should begin with something more exciting, romantic, and playful.

Your study of highly successful people does help us understand, then, how all students could be more successful.

I am confident that virtually all people have enormous potential for something. The problem is to find some way of unearthing what that is and to make it possible for them to excel in the things they find most interesting.

I don't mean that all of them could or should become world-class performers in a particular field. We could, for example, produce a million great pianists—but we probably don't have a need for that many concert pianists. Nevertheless, almost everyone can enjoy making music, and it is worth learning for its own sake. Not many people are going to become professional musicians or champion tennis players, but many more people can learn these and other valuable things if we improve the conditions for learning.

Reference


Benjamin S. Bloom is Professor of Education, Northwestern University and the University of Chicago, Department of Education, 5835 Kimbark Avenue, Chicago, Illinois 60615. Ronald S. Brandt is Executive Editor, ASCD, 225 N. Washington Street, Alexandria, Virginia 22314.