ABSTRACT:
In the past fifty years our knowledge of talent development in the schools has vastly improved, putting the quality of the teacher center stage. Gradually we are also improving our understanding of the contribution of education to talents in the form of character skills. Less well researched is the impact of the organizational form of the delivery of education on learning, although some steps have been made in understanding the importance of the empowerment of teachers. The demands for skills have, in the meantime, shifted towards non-routine work, while character skills have become more important. At the same time, the wage distribution has become more unequal and is likely to remain so in the near future. The education system has been slow to take this external world on board because education policy is often too partisan, too party-political to provide a stable structure for change. Funding of education and equality of opportunity have not been advanced as they should because of social myopia: other sectors or social goals with an immediate impact on citizens are prioritized in the political process, while education is an investment which only pays off after a long time.

KEY WORDS:
educational finance, education and inequality, education and development, equality of opportunity, sustainable economic growth, education policy

Introduction

Fantastic stories of the Odyssey were Homer’s way of telling the experiences of the Greeks in turbulent times. They are my inspiration to share with you what I have learned in almost fifty years of sailing through the world of people’s talents, in equally turbulent times. I want to avoid the word “human capital”. That term means that talents can be sold away from the person while “people’s talents” are obviously not alienable.

My talent-Odyssey brought me to many lands, always in boats of research, policy advice and policy making. This is a brief summary which necessarily has to broad-brush.

1 Part of this text was presented at the “doctor honoris causa” ceremony in Smolenice on 4th November 2014.
Not too long ago, someone called me “a man with a mission”. Indeed, all of my sailing came from the general notion of reaching a better shore, a better land, a better world. It will then not come as a surprise when I summarize fifty years of sailing experience into lessons.

My encounters during the talent-Odyssey are highlighted by some of the Gods and some of the not so godly creatures Odysseus met on his travels. I use Helios, the God of the Sun as the anchor for my discussion on how talent can grow. With Helios I capture what I have learned about what makes good education in a school and in a country.

The second God I want to encounter is the God of the Wind, Aeolus. In my talent-Odyssey, he stands for the driving force behind economic growth; in particular, for the role of people’s talents in promoting sustainable economic welfare.

I deem the luring Sirens appropriate for a discussion on income distribution from the perspective of the changes in the supply and demand of talent in societies. The past decades have shown that talent development increased wage inequality and subsequently income inequality, contrary to 1970 expectations.

Maneuvering between the Scylla and the Charybdis is my way of characterizing political decision-making regarding people’s talents and their results. Policy making is always a maneuvering between opposite interests and convictions. Here I show myself as a true believer in the “makeable” society: the society which, to some extent, we ourselves can mould.

The God of Transformation, Ciree, is the image for my summary, namely the sailing lessons for change towards education for a vibrant society. The knowledge on talent development and on the contribution of talents to the economy has certainly had its impact on the way education is organised. I suggest for future research lines on questions in which our knowledge is still limited: the role of education in contributing to “character skills”, the impact of these skills on productivity and the role of institutions in promoting talent development and the use of talents in society.

1 How Talent Can Grow

1.1 Funding Education

My earliest publication dates back to 1968. It is a mathematical model of the public sector in the Netherlands used for an economic gaming model, built along the lines of the large multi-sector macro-economic models. It was used for students to play the roles of employers, organized employees, of Government and of citizens and tax payers. The private economy part of the model, the business sectors, was huge, so that there was little space for a model of the public sector. We then decided to model the public sector in such a way that Governments were threatened by calamities, like breaks in the dike and massive flooding, if they did not spend enough in the public sector.

This may illustrate the belief with which I have grown up, namely that societies should invest sufficiently in education to avoid breaks in the dike or in my Odyssey image: to let the sun shine.

Shortly afterwards, I had the belief to work with Donald R. Winkler on a large data-set of Californian youngsters. The students had been observed during their primary and secondary school period. We contributed to the – then still new – literature on educational production functions with econometric analyses of the impact of schools on learning as measured in changes in IQ.

Fifty years later, I believe that we have firmly established that school inputs are indeed very important for learning. In particular, the quality and quantity of the teachers’ time matter as was put forward by Hamushek and Rivkin. The corollary is then that teachers should be well paid, so that the best and the brightest see teaching as a potential career for their future career. I would suggest that the lesson we have learned in the past half century is that teachers need to be paid on par with workers in the public or private sector. I find it a necessary condition for the best possible education.

This means de facto that education expenditures per student/pupil should increase with productivity and GDP per capita growth, in line with Baumol’s law: education is unlikely to have substantial opportunities for productivity increase. The promises of ICT and the Internet for productivity increases of teachers in education have now been around for more than twenty-five years. They are likely to remain only promises while at the same time ICT and the Internet will have a tremendous impact on the way pupils and students learn and teachers teach.

Hence my sailing lesson number 1: Make sure that per pupil expenditures, as a percentage of per capita GDP, do not decline in the process of economic growth.

This lesson has not been followed in most OECD countries in the past decades. With increasing numbers of secondary school and university students, with increasing demands on Government expenditures for social security and for health, they have very slowly and very gradually declined over the past half century. There were ample opportunities for private funding which might not clash with the equality of opportunity because incomes of the upper middle class substantially increased. However, very few of those opportunities were taken advantage of in OECD countries.

1.2 Organizing Education

My first encounter with the organization of education was in 1968 when the then Rector of the Delft University of Technology asked me to make a computer model of their university. It turned out to be a decisive moment in my life. It led me to become involved with the newly emerging field of the economics of education, which afterwards became a constant line in my career. Then, in 1971, in the newly emerging country Bangladesh, I learned about planning and organizing technical education in a low income country in a context in which the absorptive capacity for graduates is limited.

As a Minister of Education (and Culture and Science) in the Netherlands in the 1990s, I facilitated the passing of seventy-eight laws by Parliament. Out of these, I consider the law “On the Modernization of University Governance” of 1995 to be a prime example of empowerment. In this law, university governance was framed after the examples of well-functioning organizations in other sectors of society (including the private sector) including full “autonomy” of the university in the managerial, the organizational, the financial and the educational policy sense.

Schools are goal-oriented organizations, not public forums or representative bodies. In most countries they are primarily financed by Government. Historically, government funding has implied that Governments run schools, with little or no empowerment of the teachers. We recognize now increasingly that – despite their financing schools should be at “arms-length” of Government as, perhaps, is evidenced in the recent work of the foundation Empower European Universities which the educational policy sense.

To be excellent, schools need good funding as well as an empowering organization.

Hence my sailing lesson number 2: Organize education so that educators are empowered.
The ratio of PISA scores to spending on primary and secondary education as a percentage of GDP show remarkable differences between countries which might be explained by differences in the organization of education. This may show that the evidence of this schooling lesson needs to be strengthened through interdisciplinary research of organizational sociology, psychology and educational economics.

In practice, in most countries, politicians feel awkward about empowering schools. They feel compelled to keep a close grip on schools in order to be accountable to the public in case "things go wrong". In case of governance at "arms-length", the bureaucracy involved in accountability of schools is often overwhelming, depressing school outcomes.

1.3 Elusive Equality of Opportunity

In the late 1970s and early 1980s, under the leadership of former Minister of Education and top sociologist Jos van Kemenade, we wrote a comprehensive study on the Dutch Education System. Our debate on the reasons for the substantial public role in higher education ended in the unanimous conclusion that this role is warranted because society wants equality of opportunity. Earlier in the 1970s, together with Donald R. Winkler, I investigated the distribuitional preferences of teachers within the school class: do they put the slower learners in front or at the back of the class? We found that, at that time, teachers in California were generally more eager to promote the best learners rather than to bring the slow learners ahead.

However, that was at a time when social mobility was still quite substantial. Approximately around the generations born in 1980 this changed, as I suggested in the paper for the Salzburg seminar in 2011. My measure for social mobility was the ratio between the contributions of the school (nurture) versus that of the home background (nature) to learning. I deduced from a great many of these studies on nature versus the school in several European countries and over a long time period that the school continued to become more important than the home background for the generations born between 1950 and 1980. Yet that for the later generations' social mobility – in this measure – was halted or declined. Recently the OECD (2014) established the same for intergenerational social mobility, which is the degree to which socio-economic position of children corresponds to that of the parents.

Equality of opportunity seems to decrease because the best teachers tend to flock to the schools with the pupils who are the easiest to teach and from the highest socio-economic groups because neighbourhoods and the schools within them have become more segregated and because compulsory programs of Governments have not kept up with demand or decreased in volume.

If indeed substantial government funding of education is based on equality of opportunity then schooling lesson number 3 applies: Revamp education for equality of opportunity.

Political debates all around Europe are on private contributions to higher education. These debates may feel – erroneously – to be driven in the direction of less private contributions. However, paradoxically, more private contributions might be the main inroad for focusing public funding on those who need it most.

2 How Talent Can Propel Economic Growth

Without good winds you cannot reach your goals. Early economists like Adam Smith thought of economic development only in terms of land and machines. For the economist and preacher Malthus people were almost a threat with populations growing exponentially, while food production was increasing linearly. Around 1968, I entered into a world in which the mainstream economic growth theory was still unaware of talents as a force of economic growth. This is then also the case in my Master's thesis which I wrote at the same time as I was initiated by OECD into education economics. Notice that it was not the universities which originally led the thinking on talent in society, but international organizations, like OECD, EU and UNESCO. In the practice of policy making, however, the importance of people’s talents had taken a firm hold. Manpower-planning had become common: tying youngsters to educational careers for which jobs were available. My 1972 book with Judy Baldester was an example of manpower-planning, with little input from educational economics notions.

More in line with educational economics was the cue I took from Bowles13 and Timbergen14 to engage in a study on economic development using a production function which distinguished between different types of people’s talents categorized by their level of education. This became a part of my dissertation on education, economic growth and income distribution in 1977 which was awarded the prestigious Winkler Prince Prize.14

I learned subsequently about the complexity of the relationship between the level of education and labour productivity, especially when considering the influence of technology and physical capital. In the 1990s I became aware of the interactions between technological progress and people’s talents. Technological progress itself does not come from heaven; it is the result of new vintages of human or physical capital with higher productivity levels. The productivity levels of new vintages of physical capital are likely to result from the involvement of knowledge workers in the production process, so that the supply of talents creates its own demand. While Timbergen, many others and I thought that an increase in the number of graduates would lower their wages and make wage income more equally distributed, the opposite happened: wage inequality has increased.16

The relationship between education and the labour market is contingent on skills rather than education level per se.22

• Cognitive achievement and knowledge of the field are important. Yet equally important is the capacity to use that knowledge in "problem solving". As a metaphor for the importance of talent solving a fragment from the movie Pulp Fiction can be used. The "problem solver". The Wolf, is introduced as a catch-all.18

• Most work is done in communication and cooperation with others. How to work in teams and how to communicate is an essential part of the job for which the graduate needs to be prepared.

• Intercultural understanding is important as many graduates work in an international environment.

• Graduates need to have a good understanding of ICT.

Heckman and Kautz19 have stated that cognitive achievement tests do not adequately capture what they call "character skills" – personality traits, goals, motivations, and preferences that are also important for success on the labour market, in school, and in many other domains. Their predictive power rivals that of cognitive skills. Reliable measures of "character" are available. Moreover, schools can also make a difference in character skills.

18 Pulp Fiction is "where the Wolf is. Available on: <http://www.youtube.com/watch?v=qlkloBoU>
Hence my sailing lesson number 4: Sailing with the wind of sustainable economic growth means to focus talent development on lifetime skills; these include, besides knowledge, problem solving, communication, ICT and “character skills”, like self determination, persistence and conflict resolution without violence.

I have added “conflict resolution without violence” to the usual list. When working with Ministers of Education in the European Community of the 1990’s, I learned that this was high on their agenda. It also became an important topic at the World Bank; in particular, with the realization that armed conflicts were often preceded by stereotyping “the enemy” in textbooks. Presently, many parts of the world are in flames. The message for education is clear: to make future generations less conflict prone.

3 Wages are Becoming more Unequal

People’s talents differ and so do their proceeds. Even for people with similar talents, their results may differ, not only over large distances, but also within neighbourhoods and regions. Developed societies have always been concerned about these differences. Through taxation and the provision or subsidization of semi-private goods like health and education they have attempted to reduce income inequality. In many European countries the official goals of economic policy are to promote sustainable growth, to maintain price stability and to reduce income inequality. Generally speaking, the background for the selection of income inequality as a policy goal is much less clear than that of economic growth and price stability. Vague statements are found on social cohesion as a reason for policies to reduce income inequality. Sirens lure you from the proper route and leave you stranded on the rocks. It is my view that income inequality presents a serious danger for a stable social development. Perhaps this is in part normative. In my dissertation in 1977, I simply put the reduction of income inequality as a goal of economic policy on a par with the promotion of economic growth. Since then I have witnessed a serious increase in income inequality. I was a member of successive cabinets under which incomes grew to become less equal. OECD presents the analysis of the driving forces.

We now come to a new lesson: Lesson 5: Knowledge is the Key to Maneuvering.

The message for education is clear: to make future generations less conflict prone.

4 Politics and Governance of Talent: Maneuvering between Scylla and Charybdis

Our knowledge on the way people’s talents develop has certainly increased substantially in the past fifty years. I have had the privilege to be in the position to translate that knowledge into practice, both as a minister and university president. Governments have to pay attention to maintaining the political support of the public. That support will quickly evaporate when changes are brought about. Change is seldom better for everyone, but it is substantially better for a larger majority even when it might have a negative impact on a smaller minority. Those who suffer from the change will demonstrate their aversion while those who will benefit will not let their voice be heard.

Politics then will want to avoid the Scylla of the status quo which no longer reflects the state of the art as we know it, but also the Charybdis of applying the acquired knowledge without restraint. They will look for room for maneuvering. It is important to notice that knowledge indeed contributes to the opportunities for maneuvering. In many countries, the room for maneuvering in education is limited by the organization of educational policy making. Education is the province of Government. Political parties often seek to be attractive to potential voters by promises on education which are less than evidence based and often incident driven.

The most important change would be to increase teachers’ salaries in line with salaries of well-trained graduates elsewhere in the economy. For most Governments, the costs appear to be overwhelming. Personally, in the Cabinets in which I served, I experienced a decisive loneliness when it came to the defense of the education budget; in particular, when we raised teachers’ salaries in 1992. One can explain this as social myopia: the long-run is politically not as important as the short-run. Regarding empowerment, other elements play out. Because education is by and large paid by Government, parliamentarians expect Government to keep a close eye on the sector, so that incidents can be avoided and so that the possibility of interference remains.

The colour of Government may change with the next electoral cycle. Education is harmed if every colour by promises on education which are less than evidence based and often incident driven.

Changing the colour of Government may change with the next electoral cycle. Education is harmed if every colour by promises on education which are less than evidence based and often incident driven.

This begs the question of the threat of income inequality to social cohesion. With Bill Easterly and Michael Woolcock, I explored the relationship between inequality, governance and economic growth. Our finding is quite robust: income inequality determines institutional quality which, in turn, causally determines growth. Alesina et al. believe that less income inequality is associated with more happiness. With Klaus Zimmermann, I explored the relationship between inequality, governance and economic growth. Our finding is quite robust: income inequality determines institutional quality which, in turn, causally determines growth. Alesina et al. believe that less income inequality is associated with more happiness. With Klaus Zimmermann, I had expected to find that income inequality would be associated with Euroscepticism across the EU. However, contrary to the findings of the 1980’s and the 1999’s, income inequality did not turn out to have a significant statistical impact on Euroscepticism.

In other words, there is only limited empirical evidence that increasing income inequality poses a threat to social stability. Still— as a no-regret strategy — my sailing lesson number 3 is: Stop societies from growing apart.

My sailing lesson number 6 is then: Depoliticize education policy.
Conclusion: (Circe) Social Transformation

Fifty years ago, when my personal Odyssey started, the charting of people’s talent development and the use of talents in society was still in its early stages. Nowadays, our knowledge on talent development through schools has vastly improved, putting – oh wonder – the quality of the teacher center stage. Gradually, we are also improving our understanding of the contribution of education to talents in the form of character skills. Less well-researched is the impact of the organizational form of the delivery of education on learning, although some steps have been made in understanding the importance of the empowerment of teachers.

This happened in a period of globalization of the international financial markets, of a tremendous increase in world trade, of a marked rise in migration and one in which ICT and the Internet may imply a fourth industrial revolution. In that period, the demands for skills have shifted towards non-routine work while character skills have become more important. At the same time, wage distribution has become more unequal and is likely to remain so in the near future.

We should not ignore that, at present, we see flames of war in different parts of the world. This is a challenge for education as well: how to further intercultural understanding, how to avoid stereotyping and how to contribute to the ability to look for compromises without violence.

At his home-coming, Odysseus found his house in disarray, full of his wife Penelope’s suitors who had taken over the house. That is definitely not my experience regarding home-coming. We have deepened and broadened our knowledge on people’s talents and their role in people’s welfare. That knowledge slowly permeates the education system, the “mammoth tanker” that cannot be turned quickly and whose revamping takes time. Resistance to change inherent in organizations slows down the diffusion. As a result, education has been slow to take this external world on board. Education policy has little room for maneuvering and is often too partisan, too party-political to provide a stable structure for change.

In terms of funding and equality of opportunity, the newly acquired knowledge was insufficiently used. This reveals normative judgments: other sectors or social goals are prioritized in the political process. I understand this as myopia: it is common that in politics the “hic et nunc” are advanced over the future. Education reveals normative judgments: other sectors or social goals are prioritized in the political process. I understand this as myopia: it is common that in politics the “hic et nunc” are advanced over the future. Education is an investment which only pays off after a long time. When the social interest rate is high, short-run benefits are valued over future benefits from investments in education.

So, at my home-coming, most suitors of Penelope are gone. But some are evidently still present. My 7th and last sailing lesson is: we need to advance our knowledge on:

- Institutions and learning (how are schools best empowered).
- Skills and sustainable economic growth.
- Increasing equality of opportunity when the labour market becomes polarized.
- Decreasing income inequality in a polarized labour market.
- Educating for integrity and peace.

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