



# True Volunteer Foundation



## **Developing Creativity and Innovation in Education**

*By Sebastian Krutkowski*



# Contents:

1.1	Introduction .....	3
1.2	Identifying common misconceptions and problems .....	4
1.3	Definitions .....	5
2.1	Main shortcomings of the present education system .....	6
2.2	The need for reform .....	9
2.3	Catering for the needs of knowledge and creative economies .....	10
2.4	Creativity and technology .....	11
3.1	The role of arts in education .....	11
3.2	Creativity and education outside the traditional setting .....	12
3.3	A closer look at the leading Asian economies and arts education in India and China .....	13
4.1	Success stories .....	15
4.2	A closer look at Steiner education .....	16
4.3	A closer look at Montessori education .....	17
5.1	Conclusion and recommendations .....	19



## 1.1 Introduction

Creative initiatives applied in different settings yield different results. It is important to bear in mind the context in which education is planned and implemented. Creativity is not defined by any one trait and people do not become creative in only one medium.

This report first outlines the main misconceptions about creativity theory and practice. It then turns to define the term from several viewpoints and proceeds to revisit the arguments from Sir Ken Robinson's influential speech, "Do schools kill creativity?" given at the annual TED (Technology, Entertainment and Design) conference in 2006. A closer look at the main shortcomings of present education systems is followed by a discussion of what kind of change is needed and why the arts are so central in the reform. The report next turns to look at some success stories in creative teaching in Western economies, the situation of arts education in upwardly aspiring Indian and Chinese societies, and one example from a war-affected area in the Caucasus – where creative thinking takes place in formal state education systems. Each case study posits different possibilities and opportunities in terms of available resources and solutions as well as the urgency, timing, type and willingness to carry out necessary reforms. The paper also considers the curriculum content and teaching methods on different levels: primary, secondary and university education. All stories cited take into consideration the structural labour requirements of the modern economy. Finally, this report hopefully delineates how creativity assists us to better deal with economic, but also cultural change.

Creativity is consistently becoming more than a buzzword, quite hegemonic and international in its scope and appeal. It is now bound into theorisations of modern, post-industrial economy. It has become the new differentiating factor between people competing for jobs, many of which have just recently been invented or created. Our education system(s), however, are still operating to meet the needs of the previous era and they are not addressing what both society and economy need. One way of creating a creative workforce in the future is to put a greater emphasis on art programmes in school curricula. Reforming education curricula in favour of arts is now perceived as desirable to foster creativity and a more holistic intellectual development. However, despite numerous efforts to mainstream the arts in education, the schooling system is still predominantly focused on the industrial organisation of labour. This model was originally designed to meet the needs of commerce and industries in the 19<sup>th</sup> century, where people work according to job descriptions, abide by rigid procedures, rules and regulations, and perform according to plans handed down from above. While today the post-industrial work unit is different; there is no clear division of labour. Employees follow mostly loose procedures, because they need to be flexible. We are approaching (or have reached already) an entirely new model – an economy decisively based on creative potential and on intellectual rather than manual inputs. It is important to note that today's knowledge domains are transformed quickly and creative industries are simultaneously expressions of cultural as well as economic value.

Education is meant to be the process by which people are enabled to engage with social and economic change. Standardised language requirements, which accompanied the beginning of modern nationalism<sup>1</sup> (for communication purposes), were one measure to foster

---

<sup>1</sup> With the advent of industrialisation, as labour became technical and was required on a mass scale, people were expected to



industrialisation and economic growth in the 18<sup>th</sup> and 19<sup>th</sup> centuries. Since then, the world has moved from an industrial organisation to post-industrial (often referred to as the “knowledge” or “information” economy). The importance of manufacturing, although not obsolete just yet, is still going down while that of services, research, information and technology is increasing. The accelerating rate of change turns into the one “constant” we can be sure of.

Much advancement in education has already been made, but a lot more work is essential. Schools should teach skills envisaged to match present and future occupations. We must therefore allow both teachers and pupils to become more independent and learn through a variety of methods, by discovery; to develop and cultivate an exploratory spirit, and to be able to adapt in future working situations, provide skills and abilities crucial for modern, creative economies. In light of the ever increasing diversity, we must also ensure education helps to create inter-cultural understanding and consequently, cohesive societies. Through learning, people engage with *social* and *economic* change, yet an increasing number of changes taking place nowadays are also *cultural* and we should address that more carefully. However, according to Sir Ken Robinson, one of the gurus in the field of creativity teaching and practice, most of creative teaching and learning today takes place *despite* the dominant policies rather than because of them. Although policymakers often emphasise creativity in their speeches, what they in fact do in education suppresses it. They argue in favour of creative curricula, but do not act to implement policies that would help them achieve this.

## 1.2 Identifying common misconceptions and problems

The arts are wrongly perceived as having low economic value and no future. There persists an established hierarchy of subjects that places the arts at the bottom because they are still considered less relevant to employability. Instead, subjects like mathematics, languages, physics or IT are prioritised.

Why we need to rebalance our system in favour of creativity is perhaps best illustrated with the central tenets of Sir Ken Robinson’s charismatic speech at the TED conference in February 2006, which are, sadly, still largely unaddressed. To recap, they are:

- People have their innate creativity (a function of intellect, of imagination) “educated out of them”. This is a great waste of human talent and productivity because people work most creatively, when they are *in their element*, i.e. working in their preferred medium.
- The system restricts their opportunities, and they assume they are not creative (or that what they like doing will not guarantee them a job).
- The main problems concern the high stakes assessment system, incessant testing and standardisation.

In the next 30 years more people worldwide will gain academic qualifications than since the beginning of history. The value of degrees is tumbling, and a college degree is no longer a passport to a job one is qualified for (at best, says Robinson, it is a “visa”). A master’s degree is the new “minimum” standard. Would PhD degrees or Nobel prizes be next? We are clearly

---

operate like machines. They were also expected to learn as such. Therefore, the education system that was created, addressed the economic need for communication in a context-free fashion and with a high degree of cultural standardisation or homogeneity.



raising the wrong standards. The point is that nobody has a guaranteed seat at the top anymore. Both the content and delivery of present education systems are inadequate for the present, let alone for the future. Technology changes the way we work, think and connect (we do this instantly now). Our cultural values become transformed, too – and we must be able to embrace these changes and engage in a learning process that would help our children understand them.

The title of Robinson’s speech, “Do schools kill creativity?” is unfortunately quite up-to-date today. The education system is failing, wasting talent and it does not address what the society and economy needs. In order to change this, awareness must be spread that the arts in schools provide tremendous skills and abilities for cognitive and emotional development, improve numerous additional career opportunities (entertainment industry, the non-profit sector, etc.) and equip people with flexibility and adaptability so crucial in modern employment.

### 1.3 Definitions

According to Robinson, creativity has been “hopelessly stereotyped”. It is mainly associated with a particular type of activities (the arts) and only certain people are thought to be creative. Yet one is in fact creative if he or she continues looking for new ways of doing things, whatever their activity. The best companies innovate wherever possible – in products, services, advertising campaigns and so on.

To avoid further misconceptions, one should review some of the key conceptualisations of creativity and innovation today. First of all, creativity is not defined by any one trait. It should be seen as a non-stop learning process; not just memorisation of dates, terms, and facts, but original or innovative application of knowledge. Very broadly, creativity is about the expression of life, one’s culture. Defined more academically, creativity is the *process* of having original ideas that have value (Robinson, 2005); the *ability* to produce work that is both novel (original, unexpected) and appropriate (useful, adaptive). Now, even more specifically, creativity can be perceived as occurring on three different levels:

- cultural creativity: promoting a general culture of innovation, risk taking and experimentation
- group creativity or creative teams: which posit creativity as the result of cooperation and interaction. An example of successful collaborative creative outputs include music bands (The Beatles – as its founding members also pursued exceptionally successful solo careers)
- personal or individual creativity

As mentioned before, creativity is most frequently presented as the differentiating factor between applicants or potential employees. In light of the abundance of educated people competing for the same jobs (the “massification” of higher education), creativity becomes the *difference*.

When talking about creativity, we often think of innovation as well. The two terms are often interchangeably used. Although strongly related, they retain separate meanings. Innovation is best described as the *fuel* for innovation. Creativity is new ways of looking at existing problems, seeing new opportunities, and exploring emerging technologies (Schlesinger, 2007). Innovation is the output of creativity; putting creative ideas into practice. The former is the



starting point in a creative process, while the latter is preoccupied with the application or evaluation of ideas – sometimes reworked or re-contextualised.

One of the enduring debates within the cross-disciplinary research on creativity is the question whether individual creative effort is more important or beneficial than that resulting from collaborative input. Creativity can be an individual trait (or a collection of traits), but it is also a social phenomenon involving interaction among people within their specific group, cultural setting or intellectual domain. The improvisation of a jazz ensemble is a prime example here: although each musician is individually creative during a performance, the novelty and inventiveness of each performer's playing is clearly influenced, and often enhanced, by “social and interactional processes” among the musicians (DeHaan, 2009: 174). Also in science – a group is better at solving complex, multi-part problems than the stereotypical lone genius-scientist experiencing a “eureka” moment or inspiration. Group creativity unlocks the complexity of issues and the best creative teams are cross-disciplinary.

When defining creativity we can also make a further distinction between the so-called mini-c and big-c creativity. Both types have substantial originality components, i.e. the degree to which a plan or idea is independent in thought; the extent to which it is uncommon and builds on what has been overlooked by other people, on information from other domains, disciplines, and subject areas. According to DeHaan (2009), any creative process can be explained by reference to increasingly well understood cognitive skills that are widely distributed in the population (such as cognitive flexibility and inhibitory control). Particularly widespread is the so-called mini-c creativity, which is about arriving at fresh ideas for changing products and services as well as new or improved ways to achieve an organisation's targets.

There is also the big-c creativity, yet this may appear to reflect the one-dimensional view that only certain people are creatively gifted. This is another common misconception. Big-c creativity is not about the individual with a flash of creative invention, an “a-ha!” moment in the lab. It is about the ability to generate new ideas that substantially contribute to a whole intellectual domain. A creative person, in this view, regularly solves problems and defines new questions in a given domain in a way that is considered novel and useful.

## 2.1 Main shortcomings of the present education system

Sir Ken Robinson argues the system is responsible for killing curiosity and stigmatising mistakes, which results in future employees being risk-averse and incapable to adapt to new ways of performing work. Before entering education, children are not afraid to be wrong (because they do not know what wrong is). Then the schools destroy their curiosity, willingness to take risks and, consequently, their (innate) creativity. To use Ken Robinson's words – “we educate children out of their creative potential”. To come up with anything original, one must be prepared to be wrong at times. Instead, we have a university-oriented system and career-oriented parents that kill the creative potential of young people, their interests and talents at an early stage.

Another significant disadvantage is the enduring lack of flexibility – secondary schools are too out-dated, operating like traditional grammar schools while at university level knowledge is strictly segregated by subjects. Assessment remains excessively examination-driven, which leads to an overemphasis on memorisation of data, producing students that lack flexibility in



problem solving and critical thinking. Moreover, little attention is given to not only many intellectual, but also the *emotional* needs of children, which is very important because the expression of passion and emotions is considered vital to the health of society.

Most school curricula are also biased towards the dominant culture (of home society). We need to include interculturalism in curriculum reform and acknowledge that creativity benefits vastly from diversity. Appropriate teaching methods must be designed in this regard, however. Children are being exposed to a variety of cultures, styles, and opinions, but they must be guided by inspiring and innovative teachers to fully understand and appreciate the cultural content. Young people need to develop cultural literacy and cross-cultural understanding. When this is absent the lack of inter-group understanding may lead to conflict. Novel and original ways of disseminating information may also take place outside the traditional settings, that is, outside the realm of formal education. *Dialogue Through Film* is one such initiative, which is briefly discussed in the later section of this report. Although contextual, it highlights a creative problem - (or rather conflict-) solving approach, thinking outside the box.

The greatest underlying disadvantage of the present system is that it still promotes a kind of uniformity through its insistence on standardised testing and teaching a narrow skill set. It is precisely standardisation that is the gravest enemy of innovation. It generates risk aversion; students are under too much pressure and fear that they will not succeed academically. This brings us to the central obstacle in genuine educational reform: the overemphasis on academic performance, which determines (if not wholly dominates) our view of intelligence. This is arguably the most damaging and enduring misconception. According to Ken Robinson, if intelligence were limited to academic ability only, most of human culture would never have happened: there would be no practical technology, business, music, art, literature, architecture, etc.

Education theorists and policymakers have gradually embraced a broader view of intelligence – drawing significant insights from Howard Gardner's 1983 publication *Frames of Mind*. Gardner's theory of multiple intelligences has had profound impact on thinking and practice in education. Gardner (born 1943) studied under Jerome Bruner, the precursor of educational psychology, which is the study of how humans learn in educational settings. It also relates to the psychology of teaching, and the social psychology of schools as organisations. Educational psychology is concerned with how children (both the especially gifted as well as those suffering from disabilities) learn and develop. Gardner reminded the academia that it must recognise that the human mind is naturally curious. Before entering the school system, a young child asks an average 125 probing questions every day. After university experience, entrance to which defines the system and is responsible for thwarting creative potential, young adults ask a mere six questions a day – says Rodney Culver Hill from the Institute for Applied Creativity, Texas A&M University.

With the world being such a fascinating place, there is vast room for discovery – needed to develop a solid understanding of the world so that one could be better positioned to make it a better place. Gardner's theory of multiple intelligences, independent of each other, challenges the dominant view – i.e. intelligence as a single entity that was inherited and



measurable with IQ tests. The initial, provisional list consisted of seven intelligences<sup>2</sup>, the first two typically valued in schools, the next three typically associated with the arts, and the final two as the so-called “personal intelligences”. People have a unique blend of the above intelligence types. The list below presents their basic descriptions:

- **Linguistic intelligence:** encompassing the ability to learn languages (in spoken and written form). Language is understood as the poetic expression of the self, and it acts as means to communicate and remember information. Writers, lawyers, poets, politicians have typically highly-developed linguistic intelligence.
- **Logical-mathematical intelligence:** the capacity to analyse problems logically, carry out mathematical operations, investigate issues scientifically, detect patterns, and reason deductively.
- **Musical intelligence:** the skills in the performance, composition and appreciation of musical patterns. It is also about recognising and composing musical pitches, tones and rhythms.
- **Bodily-kinaesthetic intelligence:** the potential of using one’s body to solve problems; using mental abilities to coordinate bodily movements (e.g. eurhythmy sessions in Steiner or Waldorf schools).
- **Spatial intelligence:** recognising and using the patterns of wide space and more confined areas.
- **Interpersonal intelligence:** understanding intentions, motivations and desires of other people. This intelligence is crucial for educators, salespeople, religious and political leaders.
- **Intrapersonal intelligence:** entailing the capacity to understand oneself, appreciate one’s feelings, fears and motivations. Essentially, this is about one’s emotional development, about synthesising the understanding of the world for ourselves.

Gardner’s theory has been prone to some critique. There are many correlations between different abilities – so, is there rather *one* type of intelligence encompassing the above? Are, say, musical and bodily-kinaesthetic intelligences better approached or conceptualised as *talents*? In fact, they frequently are and it is also common to see them ranked or hierarchised. Yet Gardner’s theory won numerous followers because it validates many educators’ everyday experience: students think and learn in many different ways and teaching methods should be tailored to assist each child slightly differently in order to fully realise his or her creative potential. Gardner’s ideas thus provide a suitable conceptual framework for organising and reflecting on curriculum assessment and pedagogical practices.

Howard Gardner’s work also inspired other academics to inquire into the teaching methods at a higher education level and begin revising the content and delivery of university tuition. Today, in order to be able to spot creative talents, universities must relax rigid disciplinary boundaries and allow more independence. In his book *The Flight of the Creative Class*, Richard Florida rightly points out that talent is a flow (not a stock) and education must treat students accordingly. According to Florida, universities – traditionally stimulating intellectual environments and sites for networking – are also hubs for the new microeconomics of regional growth, engines of innovation. Typically industrial, metropolitan city-regions are no longer

---

<sup>2</sup> Gardner went on to identify other possibilities that merit further scholarly attention, i.e. naturalist, spiritual and existentialist intelligences. These are more complex proposals indeed and they remain avenues for future research as they are not as “convincing” as the original seven.





attracting all talent from universities (*vide* the prime example of Detroit). Disciplines in science, IT and humanities increasingly overlap and teaching should reflect this. University authorities should rid respective faculties of rigid walls between their departments and allow students to explore, discover, integrate and create new knowledge domains because, as the saying goes, one cannot think outside the box, if he or she remains stuck inside one.

## 2.2 The need for reform

Creativity became a somewhat hegemonic term over the past years. The accompanying paradigmatic shift in favour of the arts in education should now be followed by genuine changes in pedagogical *practice*. One aim should concern making education more participatory – for both children and parents – because when classroom teaching is dull there will be poor attendance. Parents may be experiencing a trade-off in terms of paying their children’s school fees versus paying for basic necessities at home. Therefore, schools must remain close to the respective communities and it is in this area that educators with innovative teaching methods should merit greater attention because they can engage parents with the developments in education and make the school a more inclusive and accessible environment.

A pressing issue is to ensure students and teachers are *motivated*. Because teachers provide a role model for their pupils, they must be offered more effective training and ongoing professional development. Unfortunately, teachers in many countries are insufficiently motivated, not trained to innovate, poorly or irregularly paid, overloaded with administrative duties and unable to deal with conflict and diversity in classroom. Training is essential as it is important for teachers to teach in a way that taps into as many intelligence modes as possible.

To motivate students, more of active learning techniques must be applied and less of the “chalk and board” method. Teaching can also be done through song, dance, recitation, and acting. For example, with a topic like “occupations in our community”, teachers can ask students to name occupations, make drawings of people performing particular jobs, read stories about them, match pictures with tools or even encourage a little bit of role-playing. Active learning is more participatory and more fun. This can be termed as “arts in education” approach. Arts are incorporated into lessons to enhance student interest, enhance their learning abilities and make the subjects more enjoyable.

Another crucial factor is to design appropriate curricula – appropriate in terms of: age (teaching particular subjects and ideas at the right time), the needs of the economy (teaching content must change due to the changing nature and distribution of work), and cultural content (so that diversity is appreciated and celebrated). There should also be more than one art form on offer for students.

“Appropriate” curricula also means “balanced”. Even once a variety of art forms is offered at schools and universities, one should retain a balance between risks and control, i.e. freedom of experimentation and guidance from the more experienced staff. Control or supervision is necessary because creativity is not just about generation of ideas. An essential part of any creative process is evaluation. Some ideas might be dangerous or merely impractical and this needs to be communicated.



Finally, the education system struggles to implement some positive reforms due to the lack of continuity. To a substantial degree, there must be sustained and cumulative learning under one teacher (as is the case in many Steiner and Montessori schools). Continuity also refers to some consistency in the use of textbooks (although teachers should not rely solely on this type of material when teaching in the first place). In many countries textbooks change every semester and so do the teachers. It later takes time for children to familiarise themselves with new material, teaching methods and the personality of the new instructor.

What we crucially need in education (primary, secondary and tertiary), is also required in science research and business. Relevant bodies of authority should focus on planning for more inquiry-based teaching; promote cognitive flexibility (important for integrating material across different subject areas), critical thinking (e.g. questioning assumptions in scientific research), etc. According to DeHaan (2009) this is crucial for business, as the aforementioned measures would ultimately serve to maintain a country's competitiveness, creating tomorrow's innovations. There have already been fundamental changes in how business is done and who does it. However, some of the curriculum at colleges and universities is still focused on ideals that may be eroding or becoming obsolete as they are presented in lectures.

### 2.3 Catering for the needs of knowledge and creative economies

The world is undergoing a process of unprecedented technological change. This means that global economies are increasingly interdependent. They are based on intellectual outputs, human creativity, and are reliant on ongoing innovation. Present-day employees are already in need to have more advanced communication skills and be more innovative and flexible in order to meet the requirements of the changing labour market. According to Richard Engelhardt (Regional Advisor for Culture in Asia and the Pacific, a UNESCO branch in Bangkok), author of the Report of the Asian Regional Symposia on Arts Education, all these qualities and abilities are still generally not provided at schools.

There has always been a clear *link* between education and economy, but there has not always been a good *match* or a solid *equilibrium* between the two. We have learned to identify some key, pressing issues, to “mind the gap”. However, we must still learn what to do about it so that our children can have better futures because being educated is no longer synonymous with being employable or economically well-off (let alone being “set up for life”). Moreover, as we are living in times of ongoing significant migration flows, it is important for education systems to be designed so that they instil in students a sense of community as well as an appreciation for cultural diversity.

Allowing students to experiment, make cross-disciplinary connections between different subject areas, use their imagination and interact with equipment (rather than merely sit in desks and receive instruction in a dull form) consequently generates creative output and builds their self-esteem and confidence. Ultimately, education should fulfil the goal of equipping pupils with flexible skills required for meaningful employment in a modern workplace. As old careers are quickly replaced by entirely new ones, we should hurry to rebalance education curricula accordingly so that future workers are flexible and confident to take on new roles, tasks, etc. According to the World Future Society, two-thirds of the jobs that will be available in 2020 have not been invented yet. In the new economy (whatever the



name or adjective preceding it), there are new forms of capital at play, predominantly the creative mind capital. Creativity becomes so important that it acts as the new “currency”, or the core competency of business. Information, creativity, knowledge, ability to adapt, connect and synthesise are the new “raw materials” of our millennium.

## 2.4 Creativity and technology

Thanks to the internet, creative ideas now travel instantly and a great range of people can become part of the creative process simultaneously. It is often feared that new technologies may be squeezing arts out of many school curricula, but this may not be the case. Technology provides numerous opportunities for many art forms to flourish in the modern economy. Today's younger workforce challenges the established ways of doing things in business. They use existing technology in novel ways and their preferences lie in sharing, staying connected, multitasking, etc. They work using the internet at almost all times and have many websites on which they can share and apply their knowledge and information creatively and constructively. For example, there is a group one can refer to as the “wikipedians” – those not only from academic circles but also with programmers, historians, active sportsmen or Buddhists among them (Stasiak, 2011). The “wikipedians” are united in their willingness to contribute to the ongoing project of building a grand, free web-encyclopaedia: they update it, revise its entries, and develop new ones. Another group is the “star-uppers” – i.e. young entrepreneurs and investors, searching for another Google or Facebook idea. They thus support amateur projects (“start-ups”), which may eventually evolve into global brands or companies. They are good at looking at trends, copycatting, and exchanging know-how with others. A good example of the latter group is the Kickstarter portal – it is a “crowd-funding<sup>3</sup>” website for creative projects. Kickstarter has crowd-funded a diverse array of endeavours, ranging from indie film and music to journalism, solar energy technology and food-related projects.

### 3.1 The role of the arts in education: why should arts be so central in these reforms?

When learning the arts, one learns about the presentation and communication of emotions – essential qualities we require from employees on any job description. The arts enable the development of many skills that can be applied in other fields. There are numerous, documented correlations to support this view. For instance, music instruction strongly translates into increased spatial reasoning, while drama classes improve verbal communication skills. Also, music (as evidenced in proverbs from many different countries) is thought to nurture sensitivity and possess healing or calming powers.

The arts also foster aesthetic inquiry into the nature and diversity of the world through an exploration of the shapes, colours, rhythms, and artistic expressions and relationships arising from various cultural contexts. Learning *about* as well as *through* the arts, offers the means

---

<sup>3</sup> Crowd-funding is the collective effort of those who network and pool their finances together to support projects of other people or organisations. It is now usually made through the internet and can take the form of supporting disaster relief initiatives or project ideas of artists that seek support from fans (to record a new album, make a new film, start a new company or create free software).



to successfully communicate more complex thoughts, ideas and emotions. Through the arts, one enters a creative process, is encouraged to work with others, and by celebrating achievements can help build more confidence and strong self-esteem.

The arts remain narrowly defined in both education and public policy terms. In relation to the former, only certain forms of art are favoured and included in the curriculum. As for the latter instance, the arts are associated with experiences provided by public institutions (galleries, museums, concert halls, theatres). However, Ken Robinson points out that the lives of people who do not normally attend such events do not have to be culturally barren. Robinson (2005) argues that young people are constantly engaged in aesthetic, artistic and creative processes through their engagement with pop-culture: a culture to which they actively contribute (rather than passively consume). This is why the education system, currently failing the youth, should aim at creating opportunities to develop and negotiate one's future self, engage with cultural diversity and create a sense of cultural belonging.

Importantly, the arts are also a valuable teaching tool in working with special population groups such as students with physical or mental disabilities, those with limited local language proficiency or the economically disadvantaged (Robinson, 2005: 43), while using the arts in developing countries in rural schools proves they can enhance the school atmosphere and can help improve student attendance and decrease drop-out rates.

### 3.2 Creativity and education outside the traditional setting

An important function of the arts is to represent other cultures – to facilitate the expression of other viewpoints. Since most curricula are often biased towards the dominant culture (of home society), young people may struggle to develop cultural literacy and cross-cultural understanding. For this reason cultural education, especially in conflict-ridden areas, often takes place *outside* the traditional setting. *Dialogue Through Film*<sup>4</sup> is an example of a project that helps young people in Azerbaijan, Armenia and Nagorno-Karabakh get to know each other, cooperate and exchange stories and opinions through an artistic medium – film – which proves to be a valuable teaching as well as a conciliatory measure. In the long run, this can help the groups accept, understand and appreciate each other's cultures. *Dialogue Through Film* is mainly a peace-building initiative involving young Azeris and Karabakh Armenians, aiming to reconcile the two groups since the war between Armenia and Azerbaijan (1988-1994).<sup>5</sup> It addresses what both the media and education authorities in both countries fail to take into account. The level of nationalist propaganda and misinformation is evident on either side. National television channels remain unwilling to show reports from the other (still referred to as the “enemy's” side) or feature material on reconciliation initiatives. In such scenarios, alternative ways of delivering information and fostering cooperation are sorely needed. For people in Armenia and Azerbaijan, living with the everyday issues and consequences of conflict (dealing with loss and/or displacement), education occurs in a non-

---

<sup>4</sup> The project is run by Conciliation Resources (CR), which is a UK-based organisation that supports people at the heart of conflicts who are striving to find solutions. CR works with them to deepen the collective understanding of the conflict, bring together divided communities and create opportunities for them to resolve their differences peacefully.

<sup>5</sup> Between February 1988 until May 1994 there was an armed conflict in the small enclave of Nagorno-Karabakh (south-western Azerbaijan), between the majority ethnic Armenians of Nagorno-Karabakh (naturally supported by the Republic of Armenia), and the Republic of Azerbaijan.



traditional setting, outside formal education, using an innovative medium, which offers considerable expressive opportunities.

The initiative is about making short documentaries reflecting the realities of day-to-day lives in the former conflict areas. Film becomes the creative medium through which such important knowledge can be distributed. The project makes use of the internet and many informal local civil society organisations – organising occasional screenings to small audiences, and subsequently slowly rebuilding trust. Especially the young people engage in a creative task and contribute to the peace process, breaking down the atmosphere of enmity between the entire two nations.

Armenian and Azerbaijani state schools have kept the conflict alive 18 years after the war ended. There was very little contact and children born too late to remember the fighting were fed stories about enemies. Although communities affected by war in Azerbaijan, Nagorno-Karabakh and Armenia face the same kind of problems, such discoveries or connections would never be possible by only watching the television or reading daily newspapers in either country. Therefore, filmmaking provided a rare chance to meet and work with people from across the divide. Exchanging stories and watching each side's films has enabled people to talk through emotions and difficult issues. There is no reason why professional relationships formed during such encounters may not turn into friendships.

### 3.3 A closer look at the leading Asian economies and arts education in India and China

Educating through arts is gradually more rampant in Europe and the United States, but it should also become part of the reform in many Asian countries, which are increasingly the leading economies in the world. India, for instance, now graduates more English speaking scientists and engineers each year than the rest of the world combined (Friedman, 2005). Many Indian and Chinese students may no longer feel the need to emigrate in order to study at a foreign university, one that they perceived will allow them to innovate and realise their potential better than in their home country. The arts are indeed making a breakthrough in Asia, yet many education systems are still largely based on a master-apprentice tradition and a culture of obedience.

The key challenge is that in order to create societal demand in Asia for the likes of Steiner and Montessori education (which are discussed in more detail later in this report), one has to first create more awareness and understanding in those upwardly aspiring societies that the very skills their children need for engineering, computer design systems, advanced medicine or nuclear science – skills like spatial thinking, creative problem solving, pattern recognition, concentration, communication and teamwork – are uniquely developed through the arts.

Presently, the educational reforms in many Asian economies are concerned with enhancing the curricula with *international content* (e.g. area studies, English and e-learning), while it should rather be enrichment with creative content. Internationalisation does shrink the sense of distance between Asia and the West, but policy makers and education planners should also work on enriching the curriculum with *creative content*.



Why is creativity and innovation important for Asian economies? Stuart Pallister from INSEAD<sup>6</sup> (one of the world's leading and largest graduate business schools) rightly observes that China and India struggle with the temptation of imitating rather than innovating. This attitude permeates the business world and also affects the provision of education. Both countries overwhelmingly channel their resources into low-cost production. Pallister describes this ongoing, yet dangerous trend as “frugal innovation”, i.e. ultra-low cost products and services for the poor (e.g. the Tata Nano – one of the smallest, lowest-powered and cheapest cars in the world, costing initially approximately \$2,000). Yet, this trend is being gradually reversed by the increasing investment in software, IT, automotive parts, pharmaceuticals, transport and other high-quality investments that are in the higher price segments.

Indian and Chinese economies are affected by inadequate provisions of their respective education systems. China still suffers from Soviet-like institutional legacies. Historically, research institutions in India and China have been separate from universities (Altbach, 2009: 20). China still clings to a Soviet model of small, specialised vocational institutions, often linked to operational ministries and the government. Challenges posed by such an outmoded system include institutional inertia, political interference, bureaucratic control and limited academic freedom. The burden of supervising and funding affiliate colleges are persistent issues, too. In the case of India, for instance, the University of Mumbai has 364 affiliate colleges, while Kolkata and Delhi have 170 and 83, respectively (Altbach, 2009: 21). This is all detrimental to the quality of teaching in the above universities as their teaching staff remains underpaid and overburdened with additional administrative duties. These are the enduring issues undermining the case for mainstreaming the arts in Asian education.

All of this needs to change in light of the ongoing “massification” of higher education, i.e. the continuing expansion of the motivated middle class and its thirst to educate children to degree level, and the perceived benefit of obtaining social mobility and better access to participation in the modern economy. But with more people entering higher education, we experience a problem: inflation of academic qualifications – and this is when many people will find it impossible to find a job for which they are qualified. Instead of raising standards based on the type of academic qualification, we should be focusing on a more diversified view of intelligence, as proposed in Gardner's *Frames of Mind*. Having a masters' or a PhD degree as the differentiating factor between people competing for the same job is definitely not a sustainable measure. It is creativity, flexibility as well as adaptability, self-confidence and originality that will increasingly mark that difference and help identify the best person for a particular role or position.

---

<sup>6</sup> INSEAD is an acronym for the French name “Institut Européen d'Administration des Affaires” (European Institute of Business Administration), which is an international graduate business school and research institution. It has campuses in Europe (France), Asia (Singapore) and the Middle East (Abu Dhabi), as well as a research centre in Israel.



## 4.1 Success stories: Steiner and Montessori education

State schools suffer from numerous issues, such as poor teaching quality, overcrowded classrooms, unmotivated students and staff, etc. Yet it is more important to address what they lack in terms of effective teaching methods and child development. The public schooling system can learn much from the following examples of successful primary and secondary education paths.

Research has shown that Steiner and Montessori models show that creativity does not conflict with the traditional priorities in education – i.e. raising literacy and numeracy standards. While thanks to the richness of the curriculum on offer, the creative agenda, children in Steiner and Montessori schools can discover the topics and activities that truly impassion and invigorate them. They are allowed to find their element and excel in that.

Steiner and Montessori are progressive education models where children learn by discovery. Carefully designed curricula address the emotional development of children, creating a sense of belonging for them, in more accessible and nurturing learning environments. Both schools prioritise emotional happiness, and unlike state schools, they do not put much emphasis on test marks. Assessment is not test or exam-driven, but carried out on a continuous basis; it is more “holistic” as students are evaluated (rather than graded) by portfolio, which includes teachers’ observations and record keeping. Spotting and recording hallmarks like greater maturity, happiness, and enthusiasm for learning is considered a better indication of a child’s development than crude test marks. In order not to thwart creative efforts of children, many Montessori establishments have no grades or other subtle or overt forms of either reward or punishment.

Both Steiner and Montessori models focus on working with materials rather than by direct instruction. Children are guaranteed greater independence and freedom to experiment, which empowers them, enables them to experience a sense of achievement. This eventually leads to a sort of “multiplier effect,” giving them a further creative edge and a sense of direction. Montessori and Steiner alumni are less likely to “be educated out of their creative potential” and they later exhibit a greater readiness in fulfilling their passions without considering “employability”.

Teaching methods are indeed what best distinguishes the two models discussed here from traditional schools. They make very little use of the “chalk and board” method. There is little teaching from the front of the class and more learning based on interaction with equipment (and activities featuring information about other cultures). Rather than teaching *per se*, Steiner and Montessori education is more about “directing” towards new learning opportunities, and “facilitating” the learning process. Teachers encourage pupils to find alternative and original problem-solving paths (rather than making them memorise answers, formulas and definitions or teach only by correcting them, i.e. giving the answer, sometimes even stigmatising for the mistake).

Another positive feature of Steiner and Montessori education is that parents are given more choice over how their children are educated and they also become more involved, which in turn fosters child development both at school and at home. Committed to the premise that the best way to build a child’s self-esteem is to provide numerous opportunities for



independence, both systems encourage parents to let their children participate at home in meal preparation, cleaning, gardening, caring for toys, etc.

All this often results in Steiner and Montessori students being better prepared socially (due to learning about other cultures and interacting with them), emotionally (thanks to the chance of developing their creative talents which builds their self-esteem and confidence), and also academically (because their teachers are exceptionally well-trained, are offered incentives to develop and apply innovative teaching methods, and have broad interests and expertise – which often makes them good role models for their pupils).

## 4.2 A closer look at Steiner education

Rudolf Joseph Lorenz Steiner (1861-1925) was an Austrian philosopher and social reformer. In his later years, he began working collaboratively in a variety of artistic media, including drama and movement arts that eventually led him to develop a new artistic form – an expressive movement called *eurythmy*, which highlights the importance of Gardner's bodily-kinaesthetic type of intelligence and is today one of the cornerstones of Steiner education.

Words commonly used to differentiate Steiner schools from typical state institutions include “holistic” or “spiritual”. The main differences between a state-run and a Steiner school lie in values and principles as well as teaching methods and the assessment model. Specifically, Steiner schools concentrate on the emotional development of the child.

An informal motto of Steiner education is to educate when the child is ready. Steiner curriculum is referred to as “age-appropriate”. Young learners are not subjected to incessant testing and examinations until high school. There is no evidence of Steiner pupils scoring less in regard to literacy or numeracy standards, and yet literacy is given less attention in the early stage. It becomes a more central goal when a child has strongly developed the oral skills and vocabulary to appreciate reading more. Also, vocabulary is based on real experiences first. Similarly, languages are learnt not through word-by-word translations or an overemphasis on grammar, but mostly by and reciting poems (getting to *feel* the language, first).

I interviewed a group of former Steiner students from Germany (Baden-Wittenberg region) to see how they integrate into mainstream university education after Steiner tuition. They revealed they felt better able to adapt at the workplace (due to work experience placements that were encouraged in their Steiner institutions). However, they found it difficult to deal with pressure at university (although overall they performed very well academically).

Elaborating on the features of Steiner education, my respondents remarked that they had no textbooks. Instead, there was a “narrative” from the teacher (same instructor until they were 12-13), which ensured an element of continuity and the chance to build strong relationships. They have remembered having plenty of craft activities and movement exercises (the Tai-Chi style eurythmy). The cornerstone of their Steiner system was the two-hour morning lesson with its monthly or weekly themes (called “epochs”), which included topics like “Romans” or the “physics of light”. Morning classes always began with activities designed to encourage pupils to participate in the learning process. Younger groups would start by playing an instrument or reciting a poem specially selected for each child by his or her teacher. In some





schools, poems were recited on the day of the week the child was born. There were no grades, but a form of continuous assessment: the teacher observed student performances in all aspects of creation and/or presentation. There was also no separation according to ability, so classmates have a substantial feeling of unity among themselves. Steiner education is decisively against the incessant testing, which is commonplace in public schools. Less pressure at school and a chance to create a bond with other classmates are equally valued by students and parents. The latter are thus much more involved in the school community. There are Saturday performances for parents every few weeks, which feature their children performing or presenting what they learned in class earlier on.

When asked about the main positives and negatives of their Steiner experience, they replied: “I think the *main advantage* is that I had a really nice childhood and that I had the chance to do a lot with my hands and to have everything a bit more relaxed.”

They also identified one recurrent problem: “It’s not easy to integrate into mainstream education if you come from a Steiner school (...) because I really didn’t know the pressure you have in university...”

Informants have also remarked that they consider themselves to have developed stronger self-esteem and self-sufficiency in life.

Steiner education indeed becomes more influential and popular. One student I was able to speak to, emphasised how amazed and happy he was when he realised the richness of the curriculum that Steiner schools offered – especially the chance to work creatively and manually with a range of equipment. However, Steiner schooling is yet to become affordable for a larger population. School fees become especially expensive for students aged 13 and over because this is when more specialist teachers are needed to assist with the effective development. Former Steiner students also point out the enduring trade-off between an exam-free environment and not being used to pressure at university later in life.

### 4.3 A closer look at Montessori education

This pedagogical model, or philosophy, takes its name from Dr Maria Montessori, an Italian physician, humanitarian and educator. Guided by her observation that children teach themselves, she designed an alternative model of education – one where the school becomes a “prepared environment” in which children can freely choose from a number of developmentally appropriate activities. The scope of liberty students get at a Montessori school is even greater than in Steiner establishments. This is because Montessori scholars recognise youth as a time of action and reaction(s): when identities are shaped, challenged and defined. Young people strive for independence and new experiences, which are strongly encouraged at Montessori and Steiner establishments. In both the accumulation of knowledge and construction of identity, young people engage in an active process of accepting, rejecting and transforming what they find. Their values, sensibilities, and lifestyles are now changing at an unprecedented rate. Montessori is one school that recognises this.

Being a “discovery” model, Montessori promotes learning through all five senses, at one’s individual pace and according to one’s own choices of activities from an exceptionally wide range of possibilities. Learning is perceived as an exciting process of discovery, and this is why Montessori students enjoy so much liberty in following spontaneous activities. These are both



learning/teaching techniques as well as confidence-building measures. Freedom to work and move around (rather than staying at the desk) is very important as it also encourages sensorial exploration, which in turn refines children's powers of observation, perception and communication. As children grow up cultivating such exploratory spirit, they are more likely to understand and celebrate the increasing cultural diversity of the world around. In the future, such individuals are keener to experiment and innovate. Again, to quote Ken Robinson, people succeed because they work most creatively when they are allowed to interact with their preferred medium; when they're *in their element*.

While the essential values in Montessori education are independence and freedom, the essential element is the fully-trained Montessori teacher. A Montessori teacher resembles a Renaissance person – a highly valuable role model encouraging children to develop and cultivate broad interests. Other features include: multi-age grouping, constant interaction and socialisation, and one-to-one teaching. Indeed, teachers plan individual projects and they are trained to teach one child at a time while simultaneously overseeing around thirty others working on a broad array of other tasks (there is usually a non-teaching aide to help them).

Montessori education, unlike still many universities fail to do, understands the need for most, if not all, subjects to be interwoven and not be taught in isolation. Teachers explicitly remind children to look for alternative ways to solve problems, synthesising the knowledge from across various subject areas. In a Montessori school, answers are to be discovered, invented and not memorised from the book or blackboard. Montessori education is about active engagement of children in the learning process. There is no room for passive learning or linear thinking (leading to boredom), which are frequently found in state schools. Instead, children are in an environment free of criticism, conducive to develop cognitive flexibility and enjoy intellectual excitement. They believe in their own capacity to be creative, are encouraged to question viewpoints and imagine other perspectives or approaches. There is also room for humour (young people are motivated by fun and opportunities to express their sense of humour), a tolerance for ambiguity and metaphorical thinking. All this later translates into innovative application of knowledge in university or the workplace.

Montessori students score well on standardised tests, but also rank above average on the following criteria: following instructions, acting pro-actively, turning in work on time, showing enthusiasm for learning and adapting to new situations. The model helps children to remain creative and excel at that; their many personality characteristics can flourish and they can develop stronger verbal fluency, flexibility in decision making, willingness to take more risks, autonomy, self-confidence and self-esteem, and so on. This is why Montessori schools have had considerable impact on state-run education. For instance, out of the estimated 20,000 schools worldwide in which Montessori education is practised, approximately 200 institutions are public schools (mainly in the United States and Canada) and their number is growing. However, early childhood groups still dominate in Montessori establishments. The average school roll in Montessori schools in London is 50, with the majority of schools offering tuition to children aged 2.5-7, some up to 11. Perhaps where Montessori education is not yet firmly established parents may remain not convinced about the "utility" of such education in the long run (as children approach university level). This question, unfortunately goes beyond the scope of this paper, but nevertheless posits an avenue for further research.

Although Steiner and Montessori education systems remain more in the mainstream in Germany or the United States, both have enjoyed a considerable impact in the UK, too.



Schools here now do not require students to sit national tests at ages 7, 11 and 14 (only GCSE and A-levels are compulsory).

## 5.1 Conclusion

Reasons to reform educational systems have ultimately underlying economic foundations. Keeping pace with technological developments and ongoing international competition requires people who can adapt quickly to new challenges and changing circumstances; people able to ensure a constant flow of new ideas and capable of implementing them, too. It is important to stress again that education today must cultivate an exploratory spirit (and not thwart it) – so that our schools can help to impart values considered critical to the sustainable development of society (culturally and economically). Learning *through* and *about* the arts must become widely recognised as the most suitable and successful means to achieve both social cohesion and economic efficiency in the long run. Art programmes contribute towards a holistic intellectual development – developing and maintaining a diversity of intelligence – employing art forms to develop and strengthen one's skills and understanding *within and across* disciplines.

Modern societies are in need of institutions like Steiner and Montessori schools, which provide a setting for children to experience the joy of learning without the unhealthy stress, excessive criticism or a risk of early burnout (Finn, 2009). Both Steiner and Montessori are “less institutional” and perhaps this is why they are better positioned to absorb the impact of young people's creative growth.

As Ken Robinson aptly put it, we cannot afford to educate our children out of their creative potential. Instead, we must create more chances for children to discover where their abilities really lie, cultivate their talents and interests and deepen their sensitivities through a more holistic model of development that encompasses emotional, cultural, moral, aesthetic, and social dimensions.

While Steiner or Montessori education may not yet be affordable enough for many parents, the state schools should introduce more options in the curricula and encourage the teaching staff to employ more innovative methods. Although schools do suffer from underfunding and not all improvements could be immediately carried out, there are many additional measures schools can take to teach or promote imaginative and creative thinking. One useful example is the straightforward idea of brainstorming. Developed by Osborn (1948), brainstorming stimulates inventiveness, analytical skills and “associative richness” – i.e. mapping connections, synthesising, and evaluating knowledge. It only needs to be encouraged in class; it neither requires specialist, exceptionally experienced staff nor considerable funding.

Gardner, Robinson, Montessori and Steiner can be considered paradigm shifters, genuine innovators creating conditions to change the world. Their ideas and contributions in the field of creative education are vast and we can build sound foundations of a rebalanced education system on these. We should recognise the need to move beyond ideas, and into the implementation stage. Out of all the figures and ideas discussed in this report, what perhaps still attracts most attention is Ken Robinson's speech from the 2006 TED Conference. TED allowed SKR message (and many others) to go worldwide in terms of audience, and it remains



accessible online. Ken Robinson's speech was viewed by 9.2 million on the official website alone<sup>7</sup> and it perhaps gave its recipients a sense of empowerment, discovery or a more hopeful view of the future. The maxim "Ideas worth Spreading" under which TED operates is indeed noteworthy, yet it should translate into much more. Education planners must now go beyond focusing on the conferences and speakers because often the speaker receives more spotlight and recognition than the *idea*.

We must, however, remember it was creative thinking (a *process*, not event or accomplishment) that led them to develop their influential proposals. But this should be seen within a larger context – a multi-part process in which one comes up with an idea (generative phase) and many others become inspired and empowered to work on implementing it, re-working or modifying. This is the exploratory or evaluative phase, in which everyone should take part – because we can all contribute our different talents and unique abilities to improve on the original

As the *Dialogue Through Film* example has revealed, the arts engender an understanding of the importance of cultural diversity and reinforce behavioural patterns underlying social tolerance. This in the long run contributes to the safeguarding of cultural diversity and reconciliation between conflicted parties.

The way forward should also concern ensuring greater continuity in the implementation of reforms and developing stronger and more sustainable education-economy links and changing both the content and delivery of school tuition – at primary, secondary and tertiary/university education levels.

---

<sup>7</sup> Whereas the videos of his famous 2006 and 2010 talks to the prestigious TED Conference have been seen by an estimated 200 million people in over 150 countries (<http://sirkenrobinson.com/skr/>)



## REFERENCES

- Altbach, Philip G. 2009. "One-third of the globe: The future of higher education in China and India." *Prospects*, 39: 11-31.
- Altbach, Philip G. & Knight, Jane. 2007. "The internationalization of Higher Education: Motivations and Realities." *Journal of Studies in International Education*, 11(3-4): 290-305.
- Azzam, Amy M. 2009. "Why Creativity Now? A Conversation with Sir Ken Robinson." *Educational Leadership*, 67(1): 22-26.
- DeHaan, Robert L. 2009. "Teaching Creativity and Inventive Problem Solving in Science." *CBE - Life Sciences Education*, 8: 172-181.
- Hill, Rodney Culver. 2007. "Creativity is the Currency of the New Millennium." *Creativity or Conformity? Building Cultures of Creativity in Higher Education*. January 8-10, 2007. University of Wales Institute, Cardiff. Online. [www.creativityconference07.org/presented\\_papers/Hill\\_Creativity.doc](http://www.creativityconference07.org/presented_papers/Hill_Creativity.doc) (accessed: 21 January 2012).
- Finn, Adharanand. "Steiner schools: has their time come?" *The Guardian*, 1 December 2009. Online. <http://www.guardian.co.uk/education/2009/dec/01/steiner-schools-cambridge-review> (accessed: 18 December 2011).
- Florida, Richard. 2007. *The Flight of the Creative Class: The New Global Competition for Talent*. New York: Harper Collins.
- Friedman, Thomas. 2005. *The World Is Flat*. New York: Farrar, Straus & Giroux.
- Meleisea, Ellie. (Ed.) 2005. *Educating for Creativity: Bringing the Arts and Culture into Asian Education*. Bangkok: UNESCO. Online. <http://unesdoc.unesco.org/images/0014/001420/142086e.pdf> (accessed: 11 January 2012).
- National Advisory Committee on Creative and Cultural Education. 1999. *All Our Futures: Creativity, Culture and Education*. London: DFEE.
- Osborn, Alex Faickney. 1948. *Your Creative Power*. New York: Scribner.
- Pallister, Stuart. "Pushing the boundaries: innovation or imitation in China and India?" 20 January 2011. INSEAD. Online. <http://knowledge.insead.edu/insead-knowledge-innovation-or-imitation-in-china-and-india-110120.cfm> (accessed: 18 December 2011).
- Robinson, Ken. 2001. "Mind the gap: The creative conundrum." *Critical Quarterly*, 43(1): 41-45.
- Robinson, Ken. 1999. "Culture, creativity and the young: developing public policy." *Cultural Policies Research and Development Unit. Policy Note no. 2*. Strasbourg: Council of Europe. Online. [http://www.coe.int/t/dg4/cultureheritage/culture/resources/Publications/PN\\_2\\_CultureCreativityYoung.pdf](http://www.coe.int/t/dg4/cultureheritage/culture/resources/Publications/PN_2_CultureCreativityYoung.pdf) (accessed: 17 December 2011).
- Robinson, Ken. 2005. "How Creativity, Education and the Arts Shape a Modern Economy." *Arts and Minds: Conversations about the Arts in Education*. Education Commission of the States. Online. <http://www.ecs.org/clearinghouse/60/51/6051.pdf> (accessed: 17 December 2011).



Scanlon, Jessie. "Reading, Writing, and Creativity." *BusinessWeek*, February 23, 2006. Online. [http://www.businessweek.com/innovate/content/feb2006/id20060223\\_167340.htm](http://www.businessweek.com/innovate/content/feb2006/id20060223_167340.htm) (accessed: 18 December 2011).

Schlesinger, Philip. 2007. "Creativity: from discourse to doctrine?" *Screen*, 48(3): 387-99.

Stasiak, Piotr. "Plemiona sieci." *Polityka* nr. 7 (2846). 15 December 2011, pp. 24-26.

**TVF Headquarters:  
47 Poland Street  
Soho London  
W1F 7NB**

**0203 468 7671**

**[www.truevolunteer.org](http://www.truevolunteer.org)  
[www.paytowork.org](http://www.paytowork.org)**

