

LEARN TO SUCCEED

E³ TRAINING: 2021

ADDENDA

ENTREPRENEURSHIP
EMPLOYABILITY
EDUCATION



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



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ADDENDUM 1

WHY THIS NEW INTERVENTION?

The time has come for South African learners to develop the thinking skills and mindsets to ensure success in a changing world. The DBE is adamant that learners need a new way of thinking and teachers a new way of teaching to ensure that after school, 100% of learners are employed, study further or start their own businesses.

The new E³ programme will help learners develop the mindset, skills and practical experience to achieve this, and to have fun while doing so. The executive summary of the newly-approved policy explains the new intervention:

(Please note that references to EiS refer to E³)

Executive Summary

This document forms the core of the blueprint for the national implementation of Entrepreneurship, Social Entrepreneurship and higher order employability skills as core principles into the National School Curriculum.

The purpose is to dramatically increase the employability of all learners, so that they might find their way successfully into, and contribute to, the creation of an inclusive economy.

70% of all South Africans employed in the formal sector are employed in a business or organisation under 50-people in size¹. This percentage increases to close to 90% if we include the informal sector and non-profit organisations. Small business therefore remains the backbone of current and future employment in South Africa.

The growth of small businesses depends upon the creation of more entrepreneurs. However, South Africa has one of the lowest levels of recorded entrepreneurship on the African continent². If as a nation we can work together to improve the levels of entrepreneurship and social entrepreneurship, the opportunity exists for a dramatic increase in employment levels and consequent reduction in poverty.

Our target is to see one hundred percent of all school-leavers employable, studying further, or equipped to start their own businesses in the future.

Youth unemployment in the country stands at an all-time high³ particularly between the ages of 14 and 24, it is essential therefore that we better prepare school leavers with the knowledge, skills, attitudes, and action abilities to more meaningfully access and participate in the economy.

This concept document has been formulated by the DBE task team established for this purpose, working in close collaboration with the Enabling Entrepreneurship Technical Task Team (EETTT) of the Human Resource Development Council, under the auspices of the Deputy President. It is centered on the most practical, effectual methodologies that can be systematically embedded in the National Curriculum to address issues of youth employability.

The most obvious way to address South African unemployment is to a) grow the existing small business sector to become an even greater employer of youth, b) produce more employable learners from the school system at all ages with a mindset of solution generation and action implementation which corresponds with greater employability, and c) encourage South Africans to become job creators instead of job seekers. Such a mindset depends upon the creation of an Entrepreneurial culture from as early an age as possible.

This blueprint is based directly on recommendations approved by the Deputy President and the Human Resource Development Council, on 2 April 2014, as well as the Council of Education Ministers and all other key education structures in the preceding month.

The Council of Education Ministers, as well as HEDCOM before that, requested for a detailed blueprint to be drawn up as a discussion document around the implementation of the recommendations.
This is the purpose of this document.

The EETTT formulated four Key Recommendations, which were approved by the Deputy President and key cabinet ministers in the HRDC SA on 2 April 2014:

¹ Source: Minister of Finance, Budget Speech 2012

² GEM report 2014 (Global Entrepreneurship Monitor)

³ World Economic Forum 2015 youth unemployment survey: South Africa has currently the third highest youth unemployment in the world between ages 14 and 24

Executive Summary

1. **Collaborate with the Foundational Learning Task Team**
2. **Introduce Mandatory Entrepreneurship Education**
3. **New teacher's education is required for new and existing teachers**
4. **Actively encourage businesses to engage with local educational institutions**

The focus on Entrepreneurship Education is to develop innovative, independent learners who will become highly competent employers and employees, and to do this through developing these learners as citizens who have a mindset geared towards actively engaging with and contributing to socio-economic problems surrounding them and their communities.

In other words, the stimulation of empathy alongside a problem-solving orientation will foster a realistic, and sustainable way to unleash the potential of our youth, in the process developing a new social entrepreneurial and entrepreneurial class, alongside a new generation of more employable school leavers.

It is important to stress that the purpose in adding entrepreneurship and social entrepreneurship to the curriculum is not only to develop entrepreneurs, but also to equip all learners in the best possible ways for the realities of the working world, thereby greatly increasing their employability.

Entrepreneurship education by its very nature involves action-led, practical learning that develops creativity, logical skills and practical problem solving. Not only are these skills invaluable to an entrepreneur, they belong to the category of higher order employability skills.

It is the intention of this initiative to reach over a twenty-year period an estimated 25 million South Africans, with a new more self-reliant and solution oriented mindset. By this time, almost half of the country will have had exposure to an approach which will unleash the skills required to build the economic engine of this country, to build an entrepreneurial nation that will simultaneously reduce poverty and unemployment, but place South Africa in a worthy position in our world family.

All recommendations are realistically placed within a step-by-step timeframe over a 16-year period, to coincide with the National Development Plan and its targets for 2030. Targets will also align with the objectives of the New Growth Path Plan.

We commence with those recommendations that are easiest, most cost-efficient and practical to implement first. There are opportunities at our disposal to start with effective, and meaningful changes, without any major financial or administrative disruptions and this is the approach the team has taken.

This initiative is not necessarily about strengthening the curriculum, but strengthening the implementation of the curriculum to develop this entrepreneurship and employability mindset.

This blueprint document starts with the context and background to the recommendations. The detailed implementation steps are covered in Sections 17 and 18 of the document.

It is important to note that this document is still a discussion document for consultation purposes and will be amended accordingly.

In conclusion, since studies have shown that high-impact entrepreneurship along with social entrepreneurship is a powerful engine for job creation, **the creation of a more entrepreneurial culture in South Africa – beginning with the implementation of entrepreneurial education from an early age can therefore be an effective poverty-fighting tool and hence one of the major long term solutions to our country's needs.**

ADDENDUM 2

STATUS OF SOUTH AFRICAN EDUCATION

Let us take a long, hard look at the state of education in South Africa today and the rate of unemployment as a starting point.

2.1 PIRLS 2016: Our learners cannot read meaningfully

Nic Spaull, Senior Researcher in the Economic Department at Stellenbosch University and analyst of education trends in South Africa, is outspoken as he comments on the shocking results in the 2016 PIRLS Report, which is implemented by the Centre for Evaluation and Assessment (CEA) run by Professor Sarah Howie:

“78% of South African Grade 4 children cannot read for meaning in any language. I think this was the most striking thing for me – that we had previously underestimated the number of South African children that couldn’t read for meaning. Previously we thought the number was 58% (using pre-PIRLS 2011 Intermediate Benchmark) but it turns out that it is 78% (PIRLS Literacy Low International Benchmark). Basically, we were using the wrong benchmark in the past. This is the first time that the easier PIRLS test (which used to be called pre-PIRLS, and is now called PIRLS Literacy) was put on the PIRLS scale.”

78%
of South African
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cannot read for
meaning in any
language

Some view the PIRLS report as being “unscientific” with questions being raised like: *Were the tests of similar difficulty when translated into the indigenous languages?*

All things considered however, it is clear that South African learners and learners internationally need to read with meaning.

2.2 PIRLS 2016: Our learners are badly bullied at schools

As shocking, and especially relevant for this training session, is the amount of bullying taking place at schools:

“Apart from the horrifically low levels of reading achievement, South Africa also has the highest incidence of bullying among all 50 countries that participated in the study. 42% of Gr4 students indicated that they were bullied weekly (p.226 in the report), compared to 15% in the US and England.”

Why would bullying feature in training learners for entrepreneurship and 21st century skills?

Apart from obvious reasons, i.e. the DBE recognizes that school bullies could become violent adults, it is well-researched that learners cannot learn effectively and productively if they are afraid, particularly in acquiring language skills. The affective filter is a screen that is influenced by “emotional variables that can prevent learning”. According to Krashen, this filter is set off by anxiety, fear, stress, and a lack of self-confidence and motivation. (Krashen’s Hypotheses <https://sites.educ.alberta.ca>)

2.3 Our matrics are beginning to deal with critical thinking but communication in English of these skills is a challenge

Dr Gillian Godsell from the Wits School of Governance gave an interesting talk at GIBS in 2014 in which she highlighted the need for “Serious Social Investing”. She applauds the CAPS for moving away from rote learning but adds that although critical thinking skills and higher order learning are developing amongst learners, (but not necessarily their teachers!) their ability to articulate these newfound skills is hampered by an inability to read and speak English proficiently (cf. PIRLS Report):

“But, there is a dark side. The critical thinking embedded in today’s matric examination must be expressed in English. And while we have upped the demands to analyse and think critically, we have failed dismally in giving our children the language tools in which to answer these critical questions. Time and again, tutors working at matric level tell me: when a question is explained to a learner, the learner says “Oh, is that what they want to know? Oh, I know that.” And indeed, they do know it. But they can’t say it, and they don’t even recognise that that is what is being asked for.”

2.4 Our youth are not displaying an entrepreneurial intention

It is reassuring that the CAPS does engage some higher order thinking skills and that the curriculum is promoting independent and critical thinking, problem-solving skills and a collaborative approach, yet learners do not have the confidence or informed decision-making skills to consider entrepreneurship, either pre- or post-university, as a possible intention.

What are we doing wrong? We lag behind the “entrepreneurial intention” needed to start small businesses in a country where unemployment remains high. Mike Herrington believes that the Education Ministry is letting schools down.

SA’S EDUCATION SYSTEM KILLING OFF ENTREPRENEURSHIP

REPORT REVEALS SOUTH AFRICANS’ ‘ENTREPRENEURIAL INTENTION’ LAGS WAY BEHIND AFRICAN PEERS

29 MAY 2017 - 05:40 MIKE HERRINGTON

For a country that has produced companies such as Bidvest, African Rainbow Minerals and Discovery, it’s hard to imagine entrepreneurship in SA is falling behind its African counterparts.

Yet this seems to be the case. The latest South African Global Entrepreneurship Monitor (GEM) report found that only 10.1% of South Africans of working age intend starting their own business in the next three years, compared to 41.6% in the other African countries that were surveyed.

Even more disconcerting is that this rate of “entrepreneurial intention” has been declining in SA over the past few years. In 2013 it stood at 15.4%, while in 2010, it was 19.6%.

This is a deeply troubling statistic in a country that desperately needs a vibrant small business sector to reignite its economy. Research in many other developing countries has shown that small- and medium-sized enterprises can have a significant effect on reducing unemployment and driving growth.

But in SA, a declining number of people believe they are capable of becoming entrepreneurs. In 2015, the GEM found that 45.4% of working-age adults believed they had the knowledge and skill to start their own firms. In 2016, that fell to 37.9%. In the other African economies surveyed, it is 58.6%.

Thus: although the unemployment statistics are improving slowly (see the graphs below) a drive towards building an entrepreneurial awareness within schools is a national priority and, the sooner learners can start, the better. Linear development towards creating an entrepreneurial intention amongst learners will take too long. The DBE has to devise a programme in which learners leapfrog into the future.

SOUTH AFRICA UNEMPLOYMENT RATE



SOURCE: TRADINGECONOMICS.COM | STATISTICS SOUTH AFRICA

SOUTH AFRICA UNEMPLOYMENT RATE



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2.4.1 Why is entrepreneurship education important?

Entrepreneurship education:

- a) develops enterprising attitudes and mind-sets in learners and nurtures their entrepreneurial talent;
- b) prepares learners for self-reliance at a time when formal wage employment opportunities in the South African labour market are scarce;
- c) stimulates more young women and men to consider establishing their own businesses as a viable career option of choice rather than of necessity;
- d) unleashes creativity and allows learners to develop business ideas;
- e) allows learners to develop social business ideas, i.e. business with a social purpose that seeks to address social and environmental problems and challenges;
- f) provides young men and women with the essential skills to start businesses and develop new products and services that in turn will create new jobs. If the entrepreneurs prosper, the communities in which they operate will also prosper.

2.4.2 Why entrepreneurship is important for communities:

Entrepreneurial success builds pride in communities because of a need for:

- a) personal satisfaction
- b) achievement orientation
- c) recognition of achievement
- d) expression of leadership ability
- e) self-motivation
- f) profits
- g) making a difference
- h) creating employment.

Entrepreneurship development can be expressed as improvement in the quality of life, or, put in another way, the provision of life skills, for an individual or community. Entrepreneurship education is similar to citizenship education and an exercise in nation-building – it provides people with the personal skills to take action and make changes to improve community life.

A healthy business sector will contribute to a more even distribution of income throughout the population. In this regard, some of the strongest arguments for entrepreneurship education have a social orientation. Underlying social entrepreneurship is a deep concern for the well-being of others. Empathy anchors social entrepreneurs.

One sobering fact facing those with responsibility for SME development, is the generally high failure rate of new businesses. In developed countries, approximately 50% of all new businesses fail in their first three years of existence. In developing countries, the failure rate is even higher.

When a small business fails, it is often not only a financial tragedy but also a family tragedy. The psychological problems of those people involved in the business may be as great as their financial losses.

In many instances, these failures could have been avoided by proper entrepreneurship education and training before the business was initiated.



Class system: A group of youngsters in Langa, Cape Town, relax against a wall bearing a painting of Steve Biko. A new study shows how SA's education system is failing the youth. Picture: DAILY DISPATCH

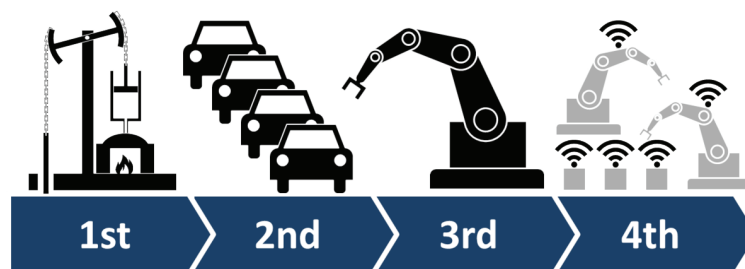
ADDENDUM 3

THE FOURTH INDUSTRIAL REVOLUTION

Globally we are on the edge of a mammoth revolution in technology and it is critical as educators that we prepare for it. The scale of the changes will change the way we buy and sell, are transported, learn ... in fact the way we live will change drastically. The scale and complexity of the revolution will be “unlike anything humankind has experienced before.”

Teachers and schools must prepare a way of responding in an integrated and all-embracing manner or else our learners will be left behind. This course is part of the response required.

This is not the first revolution to hit us. There have been three before this one:



Source: Christoph Roser at AllAboutLean.com

The First Industrial Revolution is aligned with the invention of the use of water and steam power to mechanize production.

The Second Industrial Revolution is characterised by the use of electrical power to mass produce.

The Third Industrial Revolution is known as the digital age as technology and information are used to facilitate production.

The Fourth Revolution is not really industrial but digital and it started in the middle of the last century. It is only beginning to realise today. It is often referred to as the internet of things and artificial intelligence and it is characterised by a mass of technologies that is “blurring the lines of the physical, digital, and biological spheres.” And, the speed of change is exponential. By the time our current learners leave school, the world as they knew it will no longer exist.

Unless learners have had some insights on these changes and how to respond, they shall be out of their depth.

Already artificial intelligence is upon us. Think of self-driving cars, drones, robots doing the work of people in some industries (i.e. virtual assistants). 3-D printing is already well-established while many schools still believe that their photocopier is their greatest digital asset!

3.1 Challenges and opportunities

For many, especially those who have been able to access technology freely, these concepts do not seem alien as they already bank, buy and sell and book flights using the internet. They have seen drones in action (albeit in movies) and have probably also been exposed to robotics and 3-D printing.

But for most South African children the world outside the safe confines of their schools and homes will be a huge challenge. We have to prepare them for responses to an unknown world. If they are able to embrace this world with confidence, the opportunities are enormous: costs, especially in transport and communication will reduce, markets will be opened globally, and the cost of buying and selling will drop. Especially for entrepreneurs, the forecast is good and thus, by implication, an ability to tap into these opportunities will encourage entrepreneurs. In turn, the unemployment rate is likely to drop – if our learners are ready for the challenge. A new mode of thinking will also ignite academic fires in learners who wish to continue their studies or hone skills needed for the job market.

It is crucial that learners develop their critical and creative thinking skills as this is where the highly paid jobs will lie:

“The largest beneficiaries of innovation tend to be the providers of intellectual and physical capital—the innovators, shareholders, and investors—which explains the rising gap in wealth between those dependent on capital versus labour.”

Good schooling is non-negotiable for future prosperity: in high income countries, labour as we know it is fast disappearing:

“...the demand for highly skilled workers has increased while the demand for workers with less education and lower skills has decreased. The result is a job market with a strong demand at the high and low ends, but a hollowing out of the middle.”

Continuing with their studies post-Matric is a good choice for learners who do not have a job or an entrepreneurial intent.

3.2 The impact on people

The effect on human beings and our identity is articulately expressed by Klaus Schwab, the Founder and Executive chairman of the World Economic Forum:

“I am a great enthusiast and early adopter of technology, but sometimes I wonder whether the inexorable integration of technology in our lives could diminish some of our quintessential human capacities, such as compassion and cooperation. Our relationship with our smartphones is a case in point. Constant connection may deprive us of one of life's most important assets: the time to pause, reflect, and engage in meaningful conversation.

One of the greatest individual challenges posed by new information technologies is privacy. We instinctively understand why it is so essential, yet the tracking and sharing of information about us is a crucial part of the new connectivity. Debates about fundamental issues such as the impact on our inner lives and of the loss of control over our data, will only intensify in the years ahead. Similarly, the revolutions occurring in biotechnology and AI, which are redefining what it means to be human by pushing back the current thresholds of lifespan, health, cognition, and capabilities, will compel us to redefine our moral and ethical boundaries.

3.3 Shaping the future

As awe-inspiring and overwhelming as that sounds, human beings, and our learners, if primed, will be able to manage these changes, and even exploit them for their own good. They will have to move away from linear thinking and develop strategic problem-solving skills. Most importantly, however, our learners need to have a secure sense of self and the confidence to venture into unknown territory. As it is potentially a world in which much information will be fake, critical thinking and a strong ethical sense is a given:

“In the end, it all comes down to people and values. We need to shape a future that works for all of us by putting people first and empowering them. In its most pessimistic, dehumanized form, the Fourth Industrial Revolution may indeed have the potential to “robotize” humanity and thus to deprive us of our heart and soul. But as a complement to the best parts of human nature—creativity, empathy, stewardship—it can also lift humanity into a new collective and moral consciousness based on a shared sense of destiny. It is incumbent on us all to make sure the latter prevails.” (Klaus Schwab is Founder and Executive Chairman of the World Economic Forum)

How can the education system ensure that learners are equipped for this exciting future? Two strategies that should be implemented at the soonest possible opportunity are first a curriculum review (medium term) and an immediate reassessment of current teaching pedagogies. A curriculum review is not within reach immediately although we know that a repackaging of the curriculum would have to “modernise” the approach to teaching STEAM subjects, enhance communication subjects and introduce more modern subjects like intra- and entrepreneurship. So we shall focus, instead, on progressive pedagogies to fast-track learning and engaging in the near future. A deep understanding of the Experiential Learning Cycle (ELC) and an appreciation of Project-based Learning (PBL) will be our starting point. These pedagogies, once understood, will enable us to start right now.

ADDENDUM 4

KEY OUTCOMES IN TEACHING WITHIN THE NEW SPACE

Key outcomes in teaching for the Fourth Industrial Revolution include the following knowledge, skills and attitudes and values.

Knowledge	Skills	Attitudes and values
<p>Key concepts in the STEAM subjects (Science, Technology, Engineering, Art and Mathematics.)</p> <p>Core concepts in more modern subjects like Entrepreneurship, Global Climate Change, Robotics etc.</p>	<p>4C's: Creativity, Critical Thinking, Collaboration Problem-solving Communication in English Leadership</p>	<p>Decision-making Flexibility Confidence Self-belief Resistance and commitment Empathy Ethics</p>

So how should we respond to all this information? Three viewpoints give us an insight of what is needed by learners to engage successfully in a changing world.

4.1 Professor Brian Armstrong BCX chair in Digital business at the Wits Business School

Professor Armstrong urges us to recap on previous industrial revolutions to understand an important fact: predictions do not always work out. In the last fifty years, despite the advent of computers, despite the fact that people said that computers would do away with our jobs, the exact opposite has happened. People said that the advent of the steam engine would take away jobs. It didn't happen. People said that electricity would take away jobs, it didn't. The big difference, however, is that with the 4th industrial revolution the rate of change is exponential. It is happening so quickly that unless we have quick thinking skills, and the ability to change and adapt very quickly, we will be at a disadvantage.

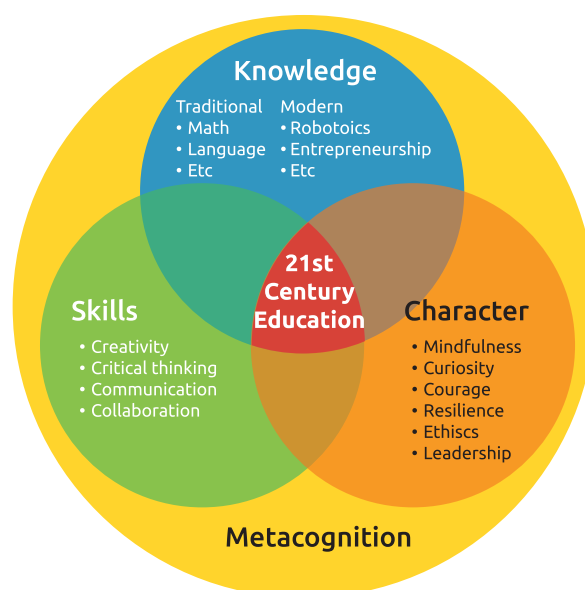
What does the future look like? According to Professor Armstrong despite the advent of technology, human beings will still be at the top of the food chain, especially those who are leaders, who are truly creative, and those who have the ability to design in a complex manner. On the other hand, there is a good chance that computers will take over what we call knowledge work which is routine methodological work and work that is based on fact. Computers are not necessarily cheaper, but they are faster, they don't make mistakes and it is easy to upscale the amount of work done by computers.

Will man be needed in the workplace? Of course! In the near future, computers will not be able to be creative, will not be able to form relationships and will only be able to perform tasks that are highly structured. This means that we have to teach our learners to enhance their creative intelligence, to enhance their communication skills or relationship intelligence and to be prepared for unstructured dexterity.

People who are involved in routine or knowledge work are more likely to be replaced by computers and this has been seen all over the world. This is referred to as the "hollowing" of the workforce and it is going to happen more speedily. So, what are the skills we need to know? According to Professor Armstrong, the following skills and attitudes are not negotiable:

1. **Learn how to learn.** We have to encourage our learners to be lifelong learners. School does not finish when you write matric. Learning does not end when you finish your university degree. As teachers we have to teach our learners to embrace the culture of lifelong learning and to take responsibility for their own learning.
2. **Old-fashioned virtues** of team work, collaboration, being a great communicator, persistence, commitment, a good work ethic and creativity, are more relevant than ever in the new age of learning, as are the development of reflection skills to assess the way in which they learn.
3. **Knowledge:** It is critical that the STEAM skills are enhanced because they will be required more than ever. Science, technology, art, engineering and mathematics remain central to the new era. Although these are very difficult to study for some people, these skills remain at the centre of our future world of work.
4. **Diversification** is also a critical skill. We cannot focus on one skill alone. We should be able to apply this skill in other situations as well.
5. More important than anything, however, is the **ability to stick to what we are doing**, to focus and to put our minds to whatever we want to do and to really excel. According to Malcolm Gladwell, we need to practise a skill for 10 000 hours to become the best in the world.
6. Do **meaningful work**. This could mean different things to different people, but even though we will be frustrated at times, be poorly paid, and face risks, if we see our jobs as giving our own lives meaning and purpose, we will excel, be motivated and get more job satisfaction than being in a job with an excellent salary but which doesn't give us a feeling of purpose.
7. **Understand future demand** and research jobs that are less likely to be performed by machines in the short to medium future. These are jobs that require creativity or creative intelligence, social, interpersonal or relational intelligence and jobs that require manual dexterity. Jobs in these three skills are less vulnerable in the short to middle term future. Another important skill which a robot or artificial intelligence cannot truly equal, is humanity. Be human. Everything we do demands the human touch. We will sell better if we see people as human beings. We cannot be successful unless we engage not only the minds of people, but their hearts as well. Social skills remain core skills. People make decisions based on what they feel rather than what they know.

4.2 Charles Fadel from the Centre for Curriculum Redesign (2015)



© Center For Curriculum Redesign

Fadl presented a white paper on redesigning the curriculum for a 21st century education. Much of what he says is in agreement with Professor Brian Armstrong of Wits. He just organises the information differently. In their curriculum, the Centre for Curriculum Redesign divides the groups of engagements of successful learners in the new age as follows:

1. **Knowledge:** This would be traditional knowledge, for example maths and physics, but also modern subjects like entrepreneurship and sustainability, etc.
2. **Skills** are how we apply what we know, the so-called four Cs of 21st century education: creativity, critical thinking, communication and collaboration.
3. Interestingly, “**character**” is defined by the Centre for Curriculum Redesign as how we behave and engage in the world. This is also considered crucial. Characteristics like mindfulness, caring, curiosity, bravery, the ability to lead and to display ethical values and resilience and commitment: these form the character we need in the 21st century.
4. Over and above knowledge, skills and character, we also have **meta learning**, how we reflect and adapt, and think about our thinking. Without this metacognitive reflection, we cannot really move to a new level of understanding.

4.3 Critical and developmental outcomes of the National Curriculum Statement

Why does this all sound so familiar? South African teachers will remember that in 1997 when the outcomes-based national curriculum statement was implemented, we were trained in the critical and developmental outcomes. These are more relevant than ever as the critical and developmental outcomes are a good start in preparing our learners for 21st century skills. Notice the similarities with Professor Richardson’s views and Charles Fadl’s Curriculum:

These are the critical outcomes that were adopted by SAQA:

1. Identify and solve problems in which responses demonstrate that responsible decisions using critical and creative thinking have been made.
2. Work effectively with others as a member of a team, group, organisation and community.
3. Organise and manage oneself and one’s activities responsibly and effectively.
4. Collect, analyse, organise and critically evaluate information.
5. Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation.
6. Use science and technology effectively and critically, showing responsibility towards the environment and health of others.
7. Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

SAQA also identified five developmental outcomes which were defined as follows:

In order to contribute to the full personal development of each learner and the social and economic development of the society at large, it must be the intention underlying any programme of learning to make an individual aware of the importance of:

1. Reflecting on and exploring a variety of strategies to learn more effectively;
2. Participating as responsible citizens in the life of local, national and global communities;
3. Being culturally and aesthetically sensitive across a range of social contexts;
4. Exploring education and career opportunities;
5. Developing entrepreneurial opportunities.

How do we prepare learners for the requirements of this changing world? How do we, at the same time, deal with the issues facing South African schools and the broader society? Progressive and pedagogies like the Experiential Learning Cycle and Project-based Learning are an excellent strategy to deal with change on a mammoth scale.

ADDENDUM 5

WHO ELSE IS DOING IT?

5 years of research was conducted into different approaches in various countries around the world by the HRDC task team. These are available.

Some countries who have successfully utilised PBL and Constructivist Learning in order to bring their youth prepared into the 21st Century and all that it offers and challenges:

Singapore:

SPRING Singapore is an agency under the Ministry of Trade and Industry responsible for helping Singapore enterprises grow and building trust in Singapore products and services. One of the programmes managed by this agency has been the Young Entrepreneurs Scheme for Schools (YES! Schools). YES! Schools provides schools with grants of up to S\$100,000 to put in place a comprehensive structured entrepreneurship learning programme for their students. Schools on all levels including polytechnics, institutes of technical education, junior colleges, centralised institutes and secondary schools may apply for funding by submitting project ideas, which get evaluated according to several criteria. Primary schools can also apply for funding but are less likely to receive. Projects from primary schools may be funded on a selective basis.

While YES! Schools has had some impact in entrepreneurial education in Singapore, there was limited industry exposure and inconsistency with regard to implementation. Therefore, at the start of 2013, a new programme was launched, known as ACE, which will be piloted at nine secondary schools across the country, which had either a YES! Schools programme running or another entrepreneurial programme in place.

The aim of the new programme is to combine theory with mentorship and hands-on experience. Internships will be a big part of it too. Other drivers include the value of taking risk, of trying something new, of believing in one's passion and learning to embrace failure. Every school involved will come under an 'Entrepreneur-Adopt-a-School' initiative, which attaches any number of entrepreneurs to an educational institution⁵⁴.

<http://www.spring.gov.sg/Entrepreneurship/FSP/Pages/young-entrepreneurs-scheme-schools.aspx#.UWJ9eBfviSo>

<http://sgentrepreneurs.com/2012/11/09/singapores-ace-launches-sgd15m->

Botswana

Botswana developed "Vision 2016"⁵⁵, which encapsulates a long-term vision for the year 2016 when Botswana will have been independent for fifty years. In this vision, it is stated that "Botswana (the people of Botswana) will need to be educated to understand better the importance of entrepreneurial skills". To achieve this objective, "entrepreneurship and business skills will be an integral part of schooling."

To achieve this, the government, although committed to providing universal access to junior secondary education, focussed their efforts on enhancing the employability and the capacity for further training of junior secondary leavers. The goals and content of the programme were revised to emphasize the following in terms of pre-vocational preparation:

- Vocational orientation of academic subjects
- Increasing the number of practical subjects offered
- Emphasizing foundation skills applicable to work situations, such as problem solving, self-presentation, team-work and computing
- Relating the curriculum to the world of work by offering both curricular and co-curricular activities that espouse the process and organization of production and the demands of working life
- Career guidance and counselling

Infuse and integrate

The approach taken was to infuse and integrate issues such as Environmental Education, Population Family Life Education, HIV/AIDS and Entrepreneurship Education into the teaching and learning material. Although limited emphasis to the need to prepare young people for the demands of self-employment, the language used contains the so-called 'entrepreneurial characteristics', which consist of:

- creativity and imagination
- independence in thought and action
- ability to take the initiative
- self-confidence and optimism
- ability to accept responsibility
- social skills and persuasiveness
- ability to cope with uncertainty
- ability to evaluate and take risks
- flexibility
- determination to succeed
- ability to take decisions
- ability to solve problems
- ability to work hard

Infusion suggests that the content of entrepreneurial education (EE) is incorporated into the curriculum to permeate and alter it in a way that affects all learners. EE content is therefore spread across as many subjects as possible to provide learners with frequent EE encounters. Infusion does not require a strong connection between subjects, as in the case of integration, and the content of the main subject does not alter. For example, creative writing in an English lesson about 'Roles people play in enterprises' would represent an attempt to infuse EE into the English lesson. In infusion, the objectives of EE are thrown into the contents of different subjects, together with instructional materials as and when necessary.

entrepreneurship-education-program-for- schools/ Botswana: <http://www.vision2016.co.bw>

Norway:

Since 2004 Norway has had a strategic plan for implementing entrepreneurship into the education system on all levels, from primary school to university and college, including teacher training. The plan was titled "See opportunities and make them work"⁵⁷ and was prepared as a collaboration between the Ministry of Education and Research, the Ministry of Trade and Industry and the Ministry of Local Government and Regional Development.

"The primary goal of the strategy for entrepreneurship in education and training is to strengthen the individual's ability to see and exploit opportunities in an economic, social and cultural context. Thus, the way will be paved for future entrepreneurship, innovation and reorientation throughout Norway."

The educational system needs to stimulate the necessary attitudes and behaviours in children and young people that will promote the capacity for collaboration, innovation and creativity. The aim is to develop specific personal qualities and attitudes that will increase the probability of a person seeing an opportunity and doing something about it. These qualities then form the basis for the knowledge and skills which will be acquired later to develop the new idea into a practical, growing enterprise.

To ensure successful promotion of entrepreneurship in education, there are four factors that need to be emphasised:

- Entrepreneurship as an integrated part of education and training: Entrepreneurship is defined as an objective in education, so it must be included in the instruction strategy. This is a matter of attitudes and qualities in general.

- Collaboration with the local community: Training in entrepreneurship requires a close collaboration between schools and the local business and social sector. Therefore, there needs to be a conscious effort made towards building relationships between the school and the various role players in the local community.
- Teachers' competence: Teachers are important role models. A positive attitude among young people in schools toward entrepreneurship, innovation and reorientation requires that teachers have knowledge of this. It is therefore important to focus on entrepreneurship in teacher training, and provide courses in competence development to those teachers that are already working.
- The attitudes of school-owners and school managers: School owners must follow up the focus on entrepreneurship in curricula and management documents, and build competence and insight among school managers. It is important that educational institutions are given legitimacy and motivation to work on entrepreneurship.

http://planipolis.iiep.unesco.org/upload/Norway/Norway%20See_the_opportunities_and_make_them_work_2004-2008.pdf Norway Entrepreneurship in Education and Training – from compulsory school to higher education 2009 – 2014, Action plan <http://www.regjeringen.no/upload/KD/Vedlegg/Brev/Action%20Plan%20for%20Entrepreneurship%20in%20Education%20and%20Training%202009.pdf>

USA:

Entrepreneurship education efforts exist at all levels of education across the USA. Few communities have embraced entrepreneurship education as an official and integrated part of their educational system. Only nine states have formal legislation that promotes entrepreneurship education at the K-12 level.

Entrepreneurship education programmes also, often fall outside of school districts formal curriculum, and thus this field has grown slowly. Successful programmes are in place across the USA yet only small pockets of excellence are experienced. For some examples of excellence, refer to section 0 below.

Education in the U.S.A. is the responsibility of each state and the local school boards. Thus, each state has put in place its own standards for entrepreneurial education. Starting in 2000 the Consortium for Entrepreneurship Education (CEE) organised an annual Think Tank of entrepreneurship education leadership organisations to create a unified approach to building the field of entrepreneurship education. One development was agreeing on common criteria for entrepreneurship education programmes. These standards are summarised in a brochure titled "National Standards of Practice for Entrepreneurship Education"⁵⁹.

Entrepreneurial education needs to be seen as a life-long learning process. The lifelong learning process proceeds through at least five distinct stages of development. It assumes that everyone should have opportunities to learn at the beginning stages. At later stages, resources are targeted to those who choose to become entrepreneurs. Each of the following five stages may be taught with activities that are infused in other classes or as a separate course.

Stage 1 - BASICS: In primary grades, junior high and high school, students should experience various facets of business ownership. At this first stage, students learn the basics of the economy, career opportunities that result, and the need to master basic skills to be successful in a free market economy. Motivation to learn and a sense of individual opportunity are the special outcomes at this stage.

Stage 2 - COMPETENCY AWARENESS: The students learn to speak the language of business, and see problems from the business owner's point of view. This is particularly needed in career and technical education. The emphasis is on beginning competencies that may be taught as an entire entrepreneurship class or included as part of other courses related to entrepreneurship. For example, cash flow problems could be used in a math class or sales demonstrations could be part of a communications class.

Stage 3 - CREATIVE APPLICATIONS: At this stage, students explore business ideas and business planning. Although it is still only an educational experience, students gain a greater depth and breadth of knowledge than at previous stages. This stage encourages students to create a unique business idea and to carry the decision-making process through a complete

business plan. The best programmes enable students to experience the operation of a business as well. This stage may take place in advanced high school career and technical programs, two-year colleges, and at some colleges and universities. Students learn how it might be possible to become an entrepreneur and to practice the processes of business.

Stage 4 - STARTUP: After adults have gained job experience and/or further education, many need special assistance in putting a business idea together. Community education programmes are widely available in the career and technical programmes, community-based assistance programmes, community colleges, 4-year colleges and universities to provide startup help. The U.S. Small Business Administration sponsors many of these training programmes.

Stage 5 - GROWTH: As firms mature, business challenges remain. Often business owners do not seek help until it is almost too late. A series of continuing seminars or support groups can help the entrepreneur recognize potential problems and deal with them in time.

The strong support for entrepreneurship education is justified in that entrepreneurship education is not just about teaching someone to run a business; it is also about encouraging creative thinking and promoting a strong sense of self-worth and accountability.

Furthermore, the CEE listed the following core outcomes created via entrepreneurship education:

- The ability to recognize opportunities in one's life;
- The ability to pursue such opportunities by generating new ideas and marshalling needed resources;
- The ability to create and operate a new venture; and
- The ability to think in a creative and critical manner

Examples of entrepreneurial education excellence:

- AllBrainTerrainProject <http://www.allterrainbrain.org/>
- NFTE(NetworkforTeachingEntrepreneurship) <http://www.nfte.com/>
- CEERoadmapforEntrepreneurialEducation <http://www.entre-ed.org/roadmap/>

http://www.entre-ed.org/_what/stds-prac-brochure.pdf Entrepreneurship Everywhere: The Case for Entrepreneurship Education by the Consortium for Entrepreneurship Education http://www.entre-ed.org/_entre/whitepaperfinal.pdf

All Brain Terrain Project <http://www.allterrainbrain.org/>

NFTE (Network for Teaching Entrepreneurship) <http://www.nfte.com/>

CEE Roadmap for Entrepreneurial Education <http://www.entre-ed.org/roadmap/>

Kenya:

<http://www.ilo.org/public/english/region/eurpro/moscow/areas/kab.htm>

Kenya: www.knowaboutbusiness.org

Kenya uses the Know About Business (KAB) programme, produced by the International Labour Organisation (ILO), initially developed and piloted in Kenya in the late 1980's and early 1990s. Since then, the programme has been developed, tested and adapted into 20 languages and implemented in over 50 countries around the world.

The programme's aim is to prepare youth for the transition from school to work by imparting entrepreneurial knowledge and skills that will prepare them to work productively in enterprises; to prepare students to start their own businesses in the future; establish an entrepreneurial and enterprising mind-set and attitude that can be applied in all aspects of one's life, including personal and professional arenas.

The specific objectives of the KAB initiative are:

- Developing positive attitudes towards sustainable enterprises and self-employment among the population, by targeting youth and stakeholders for enterprise development

- Creating awareness about entrepreneurship as a career option for young people
- Providing knowledge and practice of the desirable attributes of, and specific challenges in starting and operating a sustainable enterprise
- Facilitating the school to work transition, resulting in a better understanding of the functions and operations of sustainable enterprises

Denmark

http://www.ffe-ye.dk/media/232417/introduction_to_from_abc_to_phd_2012.pdf

The Danish government sees the education system as a tool to stimulate the ability of students to innovate, see opportunities and convert ideas into value, in other words to be “entrepreneurial”. To ensure this happens, the Partnership for Education in Entrepreneurship was established as a joint effort of four ministries. The four ministries involved are the Ministry of Science, Innovation and Higher Education, Ministry of Culture, Ministry of Children and Education and the Ministry of Business and Growth.

The Danish Foundation for Entrepreneurship - Young Enterprise (FFE-YE) was established in 2010 with the objective of ensuring that more students on every education level are introduced to - and participate in - entrepreneurship education, thus ensuring the integration of entrepreneurship in the Danish education system. The FFE-YE covers all education levels to ensure the progression of entrepreneurship education from primary school education to higher education, i.e. more than one million students and their educators.

The focus of the FFE-YE is to increase the number of competent pupils and students in Denmark who hopefully end up starting their own business or choose to help already established businesses to develop, and discover the potential in innovative projects.

The most recent mapping carried out by the FFE-YE shows that 10 percent of all pupils and students in Denmark received entrepreneurship education in the school year 2010/2011

63 pupils who participated in entrepreneurship education are happier about school, have higher ambitions for their further education and career, and feel they can contribute to society.

ADDENDUM 6

SACE CPTD POINTS

By attending this course, you are eligible to receive SACE CPTD Points, as this 3-day workshop fits into the category, Type 1 – self-initiated workshop. Although the DBE and the Provincial Departments of Education are integral to the training, the training will be led by three NGO lead trainers and thus, the following excerpt from the SACE Points Schedule appropriately explains that you will earn 15 SACE CPTD points, if you attend the workshop and reflect on each day in your PDP:

TYPE 1 – SELF-INITIATED

p. 8 and 9 of SACE Points Schedule

**Attending Educational Conferences / Workshop Sessions / Breakfast or Dinner Sessions
(Note! You will earn points every time you participate in a different workshop, conference, or breakfast/dinner session.)**

2 full days and more (15 points)

(evidence of participation and reflections in the PDP is required)

e.g. day one from 09h00 to 17h00, day two from 08h30 to 16h30, day three 08h30 to at least 13h00

Please remember that, as the activity is self-initiated, you yourself are responsible for uploading your points. Keep the invitation to the workshop and your 4 days of reflection in your PDP as evidence of this activity.

Here are some points that could be part of your 4 daily reflection exercises:

- Goals of the project?
- What new information am I acquiring?
- How am I dealing with challenges?
- What am I learning about myself?
- How will I do things differently as a result of this new learning?
- How will this learning impact the learners in my class?
- How has my mind-set changed?

This course will be endorsed by SACE in the near future after which it will divert to a Type 3 course.

ADDENDUM 7

Scented Candle Herb Plants – Learn About Using Plants in Candles

Do you enjoy the fragrance of air fresheners or commercially manufactured scented candles, but worry the chemicals in these products may be affecting your health and that of your loved ones? The good news is you can have these flower fresh scents and preserve your well-being. Making homemade scented candles can be a fun and easy DIY project. You can choose safe and natural waxes, like *beeswax* or *soy wax*, for your candle. Herb plants from your own garden can provide the fragrance. You can also create beautiful works of art by using plants in candles for their decorative value.

Use dried herbs for candles

When using herbs for candle making, start by thoroughly drying the plant material to prevent mildew. To scent a candle, herb plants can be finely chopped or crushed to help release their fragrance. Some candle makers prefer to steep the chopped herbs in the hot wax for a period of time to allow the fragrance to be incorporated into the wax. The wax is then strained before making the candle.

An alternate method is to add the chopped herbs to the candle as it is poured. The powdery herbs add a design element to the candle, especially if the herbal mix contains colorful flower petals. Adding sprigs of leaves and small flower stems around the edge of the candle while it's being poured is another decorative way for using plants in candles. This method works best for wide, clear candle jars. Keeping these larger pieces far away from the wick will prevent them from catching fire or sparking.

Best Herbs for Candle Making

By now, you may be wondering what herbs are best for candles? Aromatic herbs, like those used in aromatherapy, are popular as are herbs that evoke emotion. Flowers bring a gentle fragrance inside the home and many types of leaves can be used to decorate the outside of the candle.

Consider the following candle herb plants:

Lavender – One of the most popular choices of dried herbs for candles, lavender elicits calmness and reduces anxiety. Use crushed dried lavender to scent candles and dry flower buds for decoration.

Mint – Use homemade peppermint scented candles for a holiday table centre-piece or give them as Christmas gifts.

Burn *spearmint* scented candles year round for that clean, fresh minty fragrance.

Rosemary – Like lavender, rosemary can be used for both fragrance and as a design element in candles. Rosemary can be grown in a container or in the garden as a perennial shrub. Harvest the leaves before the plant blooms for the richest aroma.

Chamomile – With its daisy-like flower, chamomile imparts both aroma and decorative value to candle making. Harvest chamomile flowers midday when they are fully open, but after the dew has dried.

Lemon Verbena – This lemon-scented perennial shrub is so aromatic it releases a fresh citrus scent every time its leaves are touched. Harvest and dry lemon verbena leaves individually on screens. Dried leaves can be stored in zippered bags. Burning your homemade scented candles will release their herbal aroma and are a wonderful alternative to chemical air fresheners. To preserve their fragrance longer, try storing your herbal candles in an airtight container.

ADDENDUM 8

How to Make an Eco-Friendly Solid Homemade Dish Soap Bar

Author Kris Bordessa

Prep Time 15 minutes

Cook Time 45 minutes

Curing time 14 days

**Servings 5 bowls*

Changing up the way you wash dishes by using a solid dish soap bar can substantially reduce the number of plastic bottles you use.

Ingredients

4.45 ounces (131.602ml) caustic soda , (*sodium hydroxide*)

9.96 ounces (0.2945 litre) water

14 ounces beef tallow

14 ounces coconut oil

1-2 tablespoons essential oil lavender or citrus are great

Instructions

- Measure the water into a non-reactive heatproof container.
- Carefully pour the lye into the water. (Never pour water into lye.) Stir carefully.
- Combining the water and lye will create a chemical reaction and the water will become VERY hot.



- Set the lye mixture aside. While the lye cools, heat coconut oil and tallow to about 90 to 100°F. The tallow will take longer to melt than the coconut oil. If you achieve the desired temperature before it's completely melted, just turn off the heat and let the mixture sit for a few minutes. The residual heat will melt the tallow all the way.

MELTING OILS IN A POT

Pour the lye solution into the warm coconut oil and stir by hand briefly. (Note: The lye and oils should both be about 100°F when you combine them; you may need to allow the lye mixture to cool a bit.)

Use an immersion blender to bring the soap to trace.

MAKING SOAP

Incorporate essential oils.

Pour soap into shallow bowls and allow to cure for 2 weeks before using.

Pouring homemade dish soap into a bowl

Using this solid dish soap



Wet sponge and rub onto soap until suds form.

Use sudsy sponge so thoroughly wash dirty dishes.

Soap bubbles on a wooden utensil

Recipe Notes

- Always wear safety goggles and long sleeves when making soap.
- Never pour water into lye (pour lye into water).





- Using lavender, orange, or lemon essential oils gives this homemade cleaner a light fragrance.

To make a vegan soap block

Follow the instructions above using the following measurements:

28 ounces (828,059ml) coconut oil

11.15 ounces (3,25ml) water

4.98 ounces (118ml) lye

Liquid dish soap does a fine job of cleaning dishes, but I cringe every time I have to buy a plastic bottle full of soap. I had an epiphany about homemade dish soap several months ago, and I've been experimenting. If — like me — you're trying to cut back on single-use plastic, this solid dish soap might be just the solution you've been looking for.

ADDENDUM 9

Transform Recycled Jars into Pretty Decor, Candle Holders, or Gift Packaging



Stop! Don't send that glass jar to the recycle bin quite yet. Decorating glass jars and bottles is a great way to upcycle materials. Instead, doll them up, pop in a tea light, and add a bit of shine to your home. Use these "project-made" candle holders to brighten the household.

These decorative jars are great for holiday decor and packaging food gifts, too. Or make eight short jars with one taller one to use the set as a menorah. This dotting technique is super forgiving and very easy for kids to do.

Fill a decorated jar with some of this delicious homemade *creme de cacao* for a gift.
Painting jars and bottles

You can use the little jars of 3-D paint for this project. Those are probably easier for kids to use. Or you can use a small paint brush dipped in glass paint. Dip the paintbrush in enough paint that there's a bit of excess on the tip of the brush. Carefully dab the end of the brush onto the jar or bottle, transferring a dot of paint. In either case, it's a good idea to have a scrap of paper to practice on first. Once you get the dotting technique down, start stippling your decorative jars and bottles!

It will be easier to see the area on which you're working if you roll up a piece of white paper and insert it in the jar.



DIY candle holders

To make DIY candle holders, start with glass jars. (This isn't a good way to use plastic bottles as the plastic can burn and it will smell nasty if it gets too warm.) Choose jars that have an opening large enough for a votive candle (*votive Candles require a Votive Candle Holder to maximize the burn time. The Votive Candle Holder will help pool the wax and allow you to get the full burn time*) or tea light to fit. A jar taller than the candle will work wonderfully, or find a jar that is just tall enough that the wick will align with the top of the jar. The jar you see here with a lit candle is an upcycled cosmetic jar that one of my guests left behind. It has a frosted glass surface.

Pretty gift packaging

If you make homemade gifts, why not take it a step further and DIY the gift packaging? Fill decorative jars and bottles with homemade *kahlua* or *creme de cacao*. Fill a small jar with homemade taco seasoning. Or fill a larger decorated jar with pancake mix.

Make a menorah

This is a fun project for several family members to make together for Hanukkah. Select eight short glass jars and one taller glass jar. Choose just three or four colors of paint. That way, these DIY candle holders will look great together no matter how many people contribute their original designs.

Ingredients

- recycled jars or bottles glass or plastic
- paint see notes
- white paper
- Instructions
- Soak jars in warm soapy water to remove labels; dry.

Slip a rolled up piece of white paper inside the jar. This will make it easier to see what you're working on.

Add a simple shape – such as a flower, circle, or star – with one color using dots of paint.

Repeat the shape in several places on the jar. Another easy way to start is with a line around or across the jar.

Outline the shapes in a different colour with more dots. Continue adding dots, either outlining the original shape or creating new patterns until the entire jar is covered. You may need to take a break to allow the paint to dry as you move around the jar.

Once complete, put a votive candle or tea light in each jar or fill with food gift.

Recipe Notes

Tip: By sticking with just three or four colors, your DIY candle holders will look great together no matter how many family members contribute their original designs. This is especially good if you're making a menorah that will be displayed together.

You can use the little jars of 3-D paint for this project. Those are probably easier for kids to use. Or you can use a small paint brush dipped in glass paint. Dip the paintbrush in enough paint that there's a bit of excess on the tip of the brush. Carefully dab the end of the brush onto the jar or bottle, transferring a dot of paint.

It's a good idea to use a scrap of paper to practice on first.

Allow enough time for dots to dry in between sections to avoid accidentally smearing the paint.

A Kid Can Run A Business

Happens all the time. And here's something that may be a shocker for you – your kid can probably run a business too. Now you may be saying, "Look, Mike. My kids are busy with school and sports. They're well taken care of, buddy. I'm not gonna burden them with the task of running a business in addition to everything else. As long as my kid gets into Cal Tech." Uh huh.



Well, think for a minute about the kinds of habits and skills one would have to cultivate in order to run a business. Take problem-solving skills, for example. Good businesses are birthed from good ideas – innovative ways to solve a problem in the market, whether that's providing refreshing drinks for thirsty travellers along Route 56, cleaning yards for busy two-income families or Smart Phone Demystification Services for empty-nesters. Business owners also have to plan, manage and monetize their time. They have to develop strategies and build relationships to help them get the best sources for their products and provide the best chance of generating positive word of mouth publicity. Business owners must maintain a sense of accountability. They have to produce quality goods and services consistently. No excuses. In order to sell, you need to communicate a certain level of confidence in yourself and your product. So we have problem-solving, planning and management, strategic thinking, relationship management, accountability, communication skills, self-confidence. A kid with that skill set can write her own ticket in life.

HERE ARE A FEW BUSINESS IDEAS FOR YOUNG ENTREPRENEURS:

1 Computer Repair Service

If you've got a young tech genius in your midst, a small computer repair service is simple as pie. Way back in 2010, 81% of households already had either a laptop, desktop or handheld computer. I can only imagine it is way higher now. So if your child seems to have a knack for all things tech, she may consider repairing computers for extra income. There's flexibility in providing computer repair services these days. You can help her to expand her business by adding a computer shop that refurbishes used computers for resell online. Have her work remotely to provide people with help troubleshooting computer problems. Or even go old school with it and make house calls.

2 Handmade Gifts

Young people with a creative streak and an eye for pretty little things can earn extra money making homemade gifts. What's a homemade gift? Just about anything qualifies. Quilts, tutus for the puppy, fresh-baked cookies, jarred vegan soup mixes, soaps. Handmade gifts are a great way to earn money during the holidays. Know what goes well with handmade gifts? Check out the book *Creating Really Awesome Free Things*, which when your kid sells them... won't be free.

3 Gift Wrapping Services

You know, some people simply have no gift wrapping talent. Then there are those who can wrap gifts so beautifully you hesitate to even tear the paper to get to the actual gift. In case you haven't noticed, gift wrapping is a marketable skill, nearly indispensable during the holiday season. We're not just talking foil paper and curly ribbons. Think about hand-painted wrapping paper or gift wrapping that expresses the purpose and theme of the gift itself.

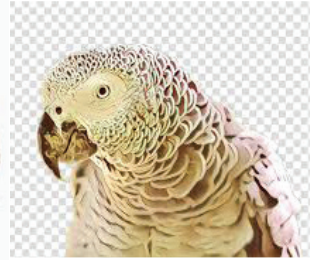


4 Investments and Passive Income

Sometimes a savings bond just isn't cutting it. In those cases, if you can teach your kids the value of passive income, by all means, do so. Real estate in particular is one area wherein many parents have already invested their own money and time. Add the kids to the mix by cashing in their bonds and offering them equity in the property. Teach them how to manage the books, collect rent and order repairs. Prepare them for a future in ownership.

5 Pet Sitting Services

A constant concern for pet owners who travel for business or who are planning a vacation is having a person or organization on-hand to care for their pet while they are away. Kids are great with animals and can, for short periods of time, serve as a fantastic and loving caretaker for pets by providing regular walking, feeding and grooming services right from the travellers home. If you want to get really serious, check out books on pet sitting businesses.



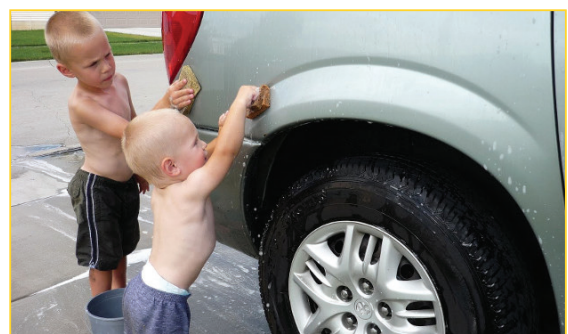
6 Social Marketing

The world of internet marketing is about knowing what's hot and telling people about it. Who is better suited to do both than a young entrepreneur? Kids are social media maven. They engage one another. They inspire older people. Get them behind a cause or product and they will naturally create content that extols the virtues of whatever project grabs them. Like a fish in water. Not only can they draw others to their cause, but they can show others how to get the same results by properly using social media and internet marketing. Both businesses can generate consistent income. Or baby-sitting for friends and family



7 Car Washing/related acts

We love our cars, don't we? We need them, rely on them so we pamper them. We wash them. We clean them. I've even seen (and patronized) car spas. The hand car wash is a service that will never fade away.



8 Cookie Monster

People LOVE cookies. And not just cookies, but cupcakes, zucchini bread, pound cakes and just about anything home-baked. When used as an income source, cookies and baked goods are easy to make, easy to transport and pretty easy to sell. Kids can learn to find the best quality ingredients at the cheapest price and come up with ways to streamline the production process so the business requires minimal time investment. Get a handful of good cookie recipes, some cute, inexpensive packaging (think cellophane, sandwich baggies and ribbons) and start churning out delicious treats that will help line your pockets.



9 Device Set Up

If you've ever accompanied a small kid to the Apple store, you have probably witnessed the magic of watching a small child intuitively master a sophisticated gadget while you sit trying to figure out how you landed on the ESPN page... and how to get off. It's almost as if they're born with product manuals already downloaded into their little heads. And that, my friends, is a marketable skill. If you know a kid who seems to be a master at setting things up and getting devices to work, they could easily earn extra money by offering such a service to busy professionals, empty-nesters and other folks who may be tech-challenged.

10 Fill a Need

The key to business is to find a need, fill it and monetize the service. Offer yard-cleaning services to people who don't have the time or desire to do work outdoors, or online consulting services to help first-time eBay users navigate the auction site with confidence. Offer to do the dishes for a busy single mom who is working full time and going to school full time. If you can meet a need, you can earn an income.



11 Jewellery Design

Kids who have an eye for fashion or a love for creative endeavours can find jewellery making a rewarding and profitable business. It doesn't have to be complex pieces with semi-precious stones. Wooden beads, painted glass and hemp bracelets are hot sellers. Designed pieces may be sold online or at local trade shows and church bazaars.



12 Artistry

In addition to jewellery and handcrafted soaps, young artists can sell a variety of creative pieces, from canvassed art work to hand-designed greeting cards. And don't limit thinking to B2C goods and services. Think B2B as well. Logo design, brochure layouts and web design are all great ways for young people to leverage their creativity.

13 Personnel Service

What if all the neighbourhood kids were grouped according to ability and will? The mastermind behind such an organization could earn a pretty penny scouting and contracting out various small jobs. The neighbourhood kids earn money doing quick jobs without having to go out and search for the work and the organizer earns a piece of the action.

14 Greeting Cards

Leverage the talents of several young people by letting them produce and sell hand-made greeting cards. Greeting cards generally employ several creative and technical skills – poetry, prose, visual art and layout. Whether one kid does it all or several kids work together to deliver the goods, a greeting card business in these days of e-cards, text and emails will be especially valuable around the holidays.



15 Poop Handler

Yes, you read that right. Families with pets will often have poop in their yards. A smart kid with a Pooper Scooper and a compost heap can help turn messy yards into hard-earned cash by servicing pet owners with yard cleaning services.

16 Corner Store

Whether it's a lemonade stand, fresh flowers, baked goods or snacks, the traditional 'lemonade stand business model' is proven to produce extra income so long as the products being vended are good enough to generate repeat business. There's plenty of versatility and you can actually find pre-made lemonade stands online and at the local toy store.

17 Gift Baskets

Assembling and designing gift baskets are a great way for kids to express their creative side while sharpening their ability to identify what the market wants and finding innovative ways to provide. The contents of a gift basket are as varied as the people who order them. Whether a child sells pre-made baskets or accepts orders for custom baskets, the business comes with natural busy seasons (Easter, Mother's Day, Christmas) that coincide with school breaks. Bonus!

Tatti



18 Upcycling

Teach kids social entrepreneurship by letting them either repurpose found items or sell them to someone like an artist or other re-purposing professional (computer repair, upholstery shop, antique shop) who can reuse or refurbish them. Another idea is to start a neighbourhood recycling centre that can be run on the weekends from a local park or right from the family garage.

19 Out with the Old

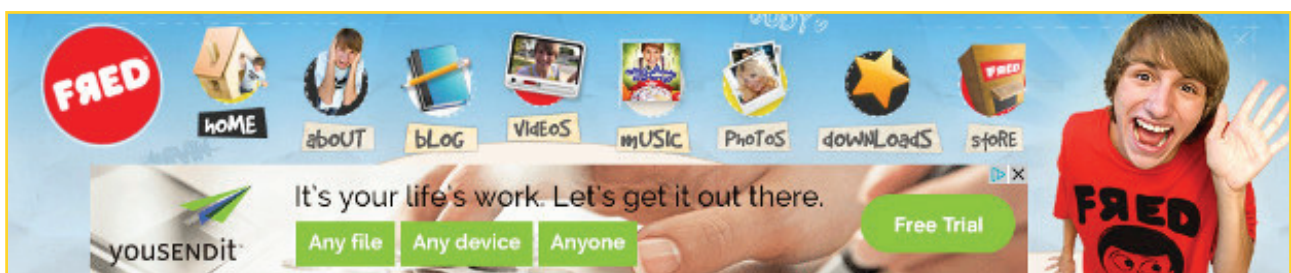
One thing about kids is they tend to grow quickly. Monetize that growth by selling off all used clothes, old bikes, toys and electronics that are no longer in use. Consider taking clothes to a consignment shop and selling old toys, electronics, furniture, etc. on craigslist.org or using online auction sites. As long as kids are growing and trends come and go, they will always have inventory to sell.

20 Use the Allowance as Seed Money

In teaching kids to develop an entrepreneurial mind-set, you can start by helping them to think of their allowance as seed money. All businesses need startup capital. Making it a habit to save some, spend some and invest some of their money is a great way to get them thinking of different ways to grow their income – whether through buying and selling on EBay, investing in high-yield stock or using the money to buy inventory and supplies for business endeavors.

21 Become an Online Personality

These days, we receive a significant portion of our daily information by blog. For kids who are social savvy and good communicators, maintaining a blog is a way to publish information, express individuality and even earn money by selling blog-related products and endorsing products that appeal to the blog's readership.



22 Writing Coach

IM speak has taken over the world. It's good to be fluent in both American Standard English and text-talk. Throw in a little slang (the Urban Dictionary folks were all over that one) and you've got a winner. Kids who have advanced written communication skills can provide guidance to peers to help them conquer those academic papers without the use of text-talk. If you don't know what IM is... you need a writing coach. (It means Instant Message).

23 Party Animal

Or planner, or clown, or musician, or juggler, or entertainer – whatever floats your boat. Older kids remember what it was like to be a younger kid and are usually in tune enough to still know what makes little kids laugh. Party planning and entertainment is a huge responsibility, but for the right imaginative kid, parties amount to fun work. Going into the party entertainment business can help teach kids accountability, market research, planning and time management plus earn them a nice fee for their services.



24 Candy Man

A quick trip to a discount wholesale club can turn any kid into a walking Sweet Shoppe. Let your kids test out their entrepreneurial legs by allowing them to sell snack-sized candies to their peers between classes or during recess at school. Be careful though. Some schools are very strict about such “enterprises.” Be sure to check first.

25 Photography

For kids who love to be behind the camera, photography may be a great way to earn some extra money. Budding photographers can license their work online by setting up accounts with iStock, Getty Images, Flickr, Dreamstime and other photo-sharing platforms. Or, they can make prints of pictures and use them on greeting cards, posters or note cards along with an engaging story, poem or other bit of prose to go along with the image.

26 Pimp my Ride

In this case, a “ride” is probably going to be a skateboard, pair of rollerblades or dirt bike, but the [niche] market still exists. A child with artistic abilities can leverage that imagination in a number of ways. Marketing and charging a fee for providing everything from doodles to full-blown inked illustrations on skateboards, skates and other personal property.

27 Doggie Treats

If a kid doesn’t want to go the traditional chocolate chip cookie route, have him consider a doggie treat business. There are plenty of recipes available right online for dog bones, doggie cookies and other treats, along with the supplies needed to make a doggie treat business profitable and professional.

28 Non-profit Work

Part of the beauty of childhood is its idealism. When you’re young, you are fully convinced you can take on the whole world. Teach your child to tap into that fire by encouraging her to get involved in a cause that she is passionate about. Most non-profits are run based on donations. Kids can learn fund raising resource allocation by working closely with a nonprofit... or even by starting their own.

29 Problem Solving

For every problem there is a solution waiting to be found. The ability to identify problems and provide solutions to those problems is the core of marketability, whether in the job market or as an entrepreneur. Work with your kids to develop the habit of identifying problems. Together you can brainstorm ideas to find the best way to solve a problem. Once a solution is identified, figure out ways that solution can meet other needs and voids in a range of different markets. Good solutions are entrepreneurial opportunities.

30 Online Store

With a web presence and a Paypal account, just about anyone can open an online store. Kids can find easy ways to set up websites and use social media to market comic books, clothes, pet toys, doggie treats, or whatever else can be bought and sold.

31 How-To Videos

How-To videos are fun to watch and usually pretty engaging. When a child has a particular talent, hobby or passion, it’s actually fun for them to show others how to do it. Build a website that focuses on a particular activity and provide the how-to video for free to subscribers who opt-in to mailing lists. By promoting similar quality products (affiliate products), kids can earn extra income by talking about and doing what they love and probably would spend their time doing anyway for free.

32 Garage Sales

We talked earlier about found items. There are probably enough items around the house that aren't being used to have regularly-scheduled weekend garage sales. Kids don't have to go far and they can acquire their inventory from deals they find at the local thrift store or even at other garage sales. As the kid gets the knack of running garage sales, he or she can extend their garage sale service to neighbors in the area and take a percentage of the total sales.

33 Invent Something

Whether it's a retractable stick to turn off the bedroom light at night after reading, or a contraption that keeps Lucky in the bathtub when it's time for his weekly bath, kids are masters of invention. They imagine and re-imagine all kinds of household items. Help them to cultivate that creativity. Later, when they stumble onto something good, it may be time to look at patenting, mass producing and selling the invention.

34 Out of the Mouths of Babes

Despite their relative inexperience with life, kids have a way of getting to the meat of an issue and offering their spin of simple wisdom that can both inspire and enrich life. Help them to turn their marvelous insights into cash by starting line of products – coffee mugs, t-shirts, note cards, etc. – that contain inspirational quotes.

35 The Art Collector

Kids can collect art work from siblings, friends, cousins and even a few pieces they created themselves. Frame every piece and sell them locally at art shows, festivals, open air markets, garage sales and even online. Pay the original artist for their hard work and they will be inspired to produce more great work to sell.

36 Clothing Swap

Have a well-connected teen rally the teen community and start a clothing swap where group members can come to exchange clothes with other members of the group. Charge a membership fee or a service fee per swapping session.

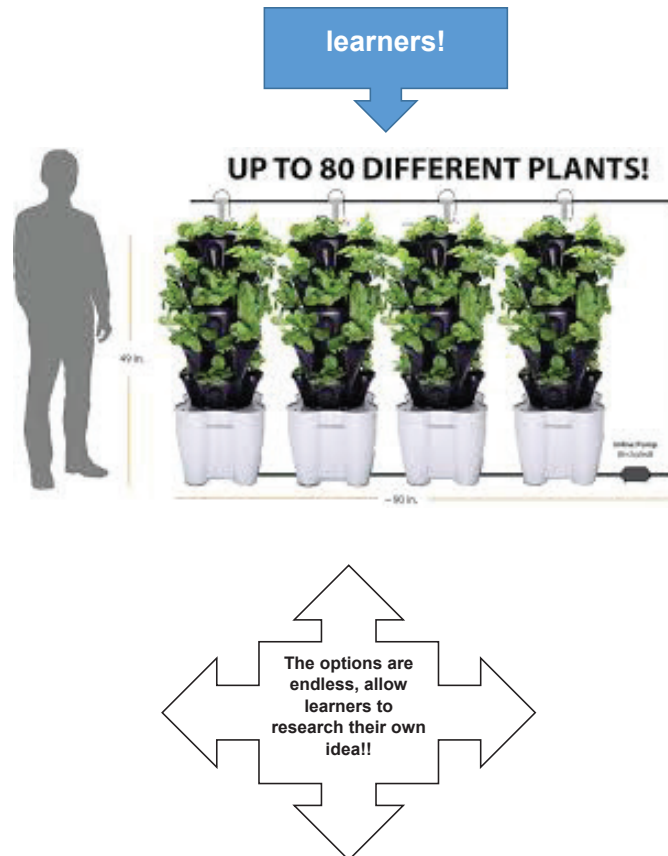
37 Cleaning Service

Getting kids – especially younger kids – to clean their rooms to the satisfaction of mom and dad can be a challenge. But the process tends to go a lot faster when they have help. For a small fee, your kid may want to consider providing other families with a cleaning service that essentially assists household members with straightening up the house. They can market full cleaning services or just to stand in as an extra hand to stand shoulder-to-shoulder with the customer to assist in cleaning. Either way can be quite profitable.

It's never too early to groom a child to be an entrepreneur. The new economy is ripe with new business owners and first-time freelancers who have discovered the best way to increase their income is to fill voids in the market by leveraging hidden talents. Kids have talents as well. Whether you're bringing up a toddler or [are being brought up by] a teenager, entrepreneurship is becoming an increasingly valuable skill to have.

ADDENDUM 10

Tower Gardens



Let's do this...

HOW TO MAKE A TOWER GARDEN

An array of materials can be used when constructing a homemade garden tower, such as old planters, recycled containers, bits of fencing or scraps of PVC pipe. Anything that can create a vertical space for holding dirt and rooting plants can probably be used for building a tower garden. Additional supplies include landscape fabric or straw for retaining soil and rebar or pipe for support. Consider these simple DIY tower garden ideas to get your creative juices flowing:

Old tires – Stack them up and fill them with dirt. This very simple homemade garden tower is great for growing potatoes.

Chicken wire cylinder – Roll a length of chicken wire into a tube and secure it. Set the tube upright and stake it to the ground. Fill the tube with soil. Use straw to prevent the dirt from escaping through the chicken wire. Plant seed potatoes as you fill it or insert lettuce seedlings through the chicken wire.

Spiral wire tower – A double-walled, spiral-shaped frame is made using hardware cloth. The double-wall is filled with decorative gravel. Plants are grown in the interior of the spiral.

Flower pot tower – Choose several terra cotta or plastic flower pots of concentric sizes. Place the largest on a drip tray and fill it with potting soil. Tamp the soil in the centre of the pot, then place the next largest pot on the tamped soil. Continue the process until the smallest pot is on top. Plants are placed around the edges of each pot. Petunias and herbs make great plants for tower gardens of this type.

Staggered flower pot tower – This garden tower follows the same principle as above, except a length of rebar is used to secure pots set at an angle.

Cinder block stack – Create a unique design using the openings in the cinder block for plants. Secure the structure with a few pieces of rebar.

Pallet gardens – Stand pallets upright with the slats sitting horizontally. Landscape fabric can be nailed to the back of each pallet to retain the soil or several pallets can be connected to form a triangle or square. The space between the slats is great for growing lettuce, flowers or even patio tomatoes.

PVC towers – Drill holes in lengths of 4-inch (10 cm.) PVC pipe. Holes should be large enough to insert seedlings. Hang the tubes vertically or place them in five-gallon buckets using rocks to secure them.

HOW TO MAKE A BOTTLE TOWER GARDEN

With all the chemically-sprayed herbs that we sometimes purchase, one can help but wonder which products sold on the market are still being organically cultivated? How do we choose? The truth of the matter is, we'd be better off growing our own herbs, even our own fruits and vegetables. Sadly, not everyone has time, patience or sufficient garden space to do so.

If you're a fan of Jamie Oliver's cooking shows, you already know that he has a bunch of herbs and plants that he grows by himself, in his own kitchen and garden. Here's a crazy idea, why not try to grow them yourself? We can teach you how to create your own bottle tower garden with items you probably have lying around the house. Just as the name suggests it, this is a tower built out of recycled plastic bottles that's extra affordable to make, saves a lot of space and allows you to grow the herbs of your choice.

1. BENEFITS OF HAVING A BOTTLE TOWER GARDEN

Before we dive into the actual steps for making one of these, here are some reasons why this should be your next project:

It's a great way to recycle a bunch of old soda and water bottles.

Since the tower is built vertically, it will help you save a lot of space. This means that it's ideal for people who have small gardens or just don't want to use up too much space for growing herbs and flowers.

Aside from the seeds and soil needed to grow these plants, you most likely have every other item you need around the house, making this project not only useful but also affordable. It doesn't take a lot of time to complete, the project should be done in no time, except for the collection of the bottles.

You can always add more bottles with more soil to grow even more herbs and spices. That means that you can grow this little garden at any time.

The system works in such a way that you won't be wasting water to grow these plants and herbs (you'll discover more about that when we go over the steps).

As mentioned above, this project uses items that learners have lying around the house.

Here's a list of what you need:

- A generous number of 2-liter bottles, depending on how big you want your vertical garden to be. You should have at least 3-4 bottles for each tower and multiply that number depending on how many towers you want.
- A sharp pair of scissors for poking holes in the plastic bottles. Could also be a nail or anything sharp and resistant.
- A small incision knife or a box cutter, for cutting through plastic.
- A small ruler, for a couple of measurements.
- A marker, as you will need to cut the bottles and poke them according to specific measurements.
- Twine or wire or anything that's sturdy enough to hold the bottles into place on the support system where your garden will be placed.
- Garden soil, compost or **potting mix**.
- **Seeds** or seedling of several flowers, herbs or small plants that you want to grow.

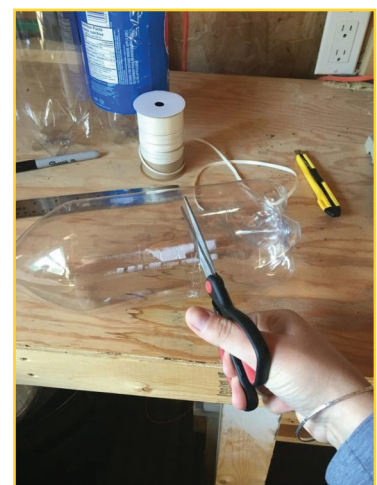


HOW IT'S MADE

- There are 4 major steps to finishing this project, but each of them is divided into smaller ones.
- You will need to create a base for the tower.
- Move on to creating the actual tower levels.
- Create the drip irrigation system and,
- Last but not least, we will be planting the actual flowers or herbs or small vegetables that you want to grow.

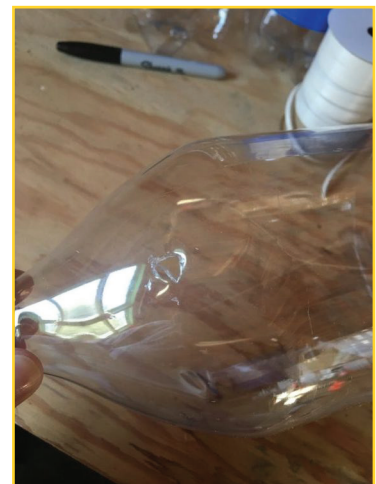
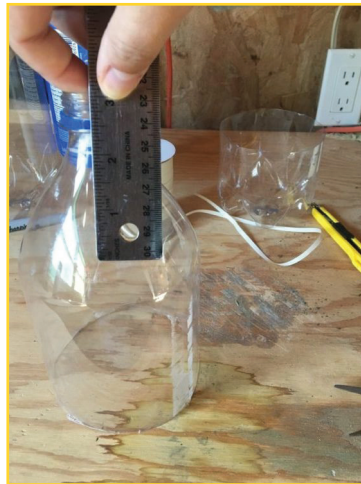
STEP ONE

We begin by creating the base for the tower. The 2-liter plastic bottles you are going to use probably have their labels on them. Before you remove those labels (this is optional, but let's face it: your garden will look better if there are no soda labels showing off between your greens), make a cut below the end of that label. You need to make sure you preserve a small portion of the bottom curve inward. If you follow this instruction precisely, the bottles should later stack with ease. Remove the base of the bottle after cutting.



STEP TWO

Measure 7,62cm, or 7 to 8 cm, above the cap, on the opposite sides of the bottle (you can use a ruler and a marker to place the dots). Then, using a sharp pair of scissors, poke those 2 holes at the diameter of a BIC pen (or any other sharp object). These are the drainage holes for water.



STEP THREE

Now it's time to add the soil inside the bottle. You can opt for garden soil, **compost** or potting mix, whichever is at hand. Make sure you leave about one inch of space at the top of the bottle. Also, press the soil gently so that there are no air gaps between the layers of soil.

This is the final small step of creating the tower base. Identify the supporting structure where you want to place your bottle tower. It could be anything from a wired fence, to a wooden one or even a chain-link one. Using twine or wire, tie the base of your tower to that structure, making sure it doesn't wobble, as we wouldn't want your soil-filled bottles to fall and make a mess.



STEP FOUR

This is the final small step of creating the tower base. Identify the supporting structure where you want to place your bottle tower. It could be anything from a wired fence, to a wooden one or even a chain-link one. Using twine or wire, tie the base of your tower to that structure, making sure it doesn't wobble, as we wouldn't want your soil-filled bottles to fall and make a mess.

STEP FIVE

Plastic bottle cut at the centre.

Now we move on to creating the tower levels. Take another plastic bottle and repeat the first step.





STEP SIX

Repeat step #3 and remember to press the soil gently as you add it inside the bottle and leave that one inch of space we talked about earlier.

STEP SEVEN

Depending on how tall you want your tower to be, repeat the steps 5 to 6, always making sure that you remove the cap after adding the soil and tying the bottle to the structure so that there are no loose ends.

Note: You can add about 4-5 bottles stacked on top of each other to create 1 vertical tower, but that doesn't stop you from adding parallel towers. You will just have to repeat the steps from 1 to 7 if you want to create a really generous garden.



STEP EIGHT

Now we move on to the creation of the irrigation system. Yes, you will need more plastic bottles. Take one and cut it in half. As you can tell, this bottle is shorter than the others, as it will become your watering funnel.

STEP NINE

Using a very sharp object (could be a solid pair of sharp scissors, a nail, a cutter or something similar), poke a 1 mm hole inside the cap of the watering bottle.



STEP TEN

Attach the cap of the funnel bottle. Then poke two holes in the sides. Now, place the funnel on top of the tower you previously created, making sure that it rests firmly on the soil of the supporting bottle beneath it.



STEP ELEVEN

Above the funnel, you can now place the watering bottle (the one with the hole in the cap). The order of the bottles (from top to bottom) should be watering bottle (with the hole in the cap), the funnel, tower body, tower body, tower body, tower base.

Note: If the funnel and tower bottle don't have enough stability, you can tie them down just as you did with the soil bottles.





STEP TWELVE

Here we begin the final phase of our DIY bottle tower: planting and growing. Using a box cutter or a very small incision knife, you will need to cut small squares into each soil bottle.

You can use a marker to draw a square on each bottle, facing forward, with each side measuring 1.5 to max 2 inches. Cut only 3 of the 4 square sides, leaving the bottom side of the square uncut.



STEP THIRTEEN

Fold down the small flap you just created and, using your finger, poke a hole into the soil. Now, place the seeds or seedlings of your choice in that small hole.



STEP FOURTEEN

You can now fill the top bottle with clean water, making sure you replenish the stock every few days.

STEP FIFTEEN

Wait patiently and then enjoy watching your vertical garden grow fresh produce for your future meals.



CONCLUSION

This simple gardening project is ideal for everyone who is either passionate about growing plants or is tired of purchasing everything from thyme to basil from the market. Don't let the 15 steps fool you: creating a vertical bottle garden is actually very simple and it can be done in a matter of hours. It takes up little garden space and you really need is a sturdy support system for all the soil bottles you want to have. Did you try this how to? How did it go? Share your experience with us by commenting below!



Small vegetable gardens are a challenge, but this tower garden can help you get the most out of your space! Make it from recycled PVC pipe and grow more than a dozen plants in a single square foot (*space available*).

It's easy to make using materials from a building supply store, or collecting from a building site, but if you know someone in the construction industry, you might be able to salvage what you need. The diameter (*thickness and size*) of pipe for this project is a bit flexible, which allows you to choose what works best for you.

A. WHAT DO YOU NEED

- PVC pipe – 6-to-8-inch diameter by 4 ft. long
- PVC pipe – 1½-to-2-inch diameter by 4 ft. long
- Cordless or electric drill
- 1-1/2 inch Hole saw for drill
- ¼ inch Drill bit
- Pencil
- Tape measure

B. FOR ASSEMBLING THE TOWER

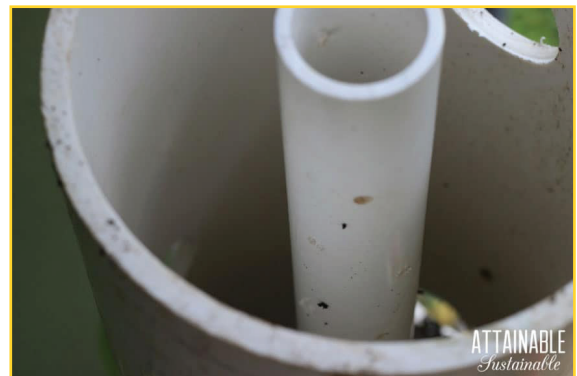
- Potting soil
- 16 Pieces Recycled cardboard roughly 2-inch square
- 17 Seedlings of lettuce and mixed greens

C. INSTRUCTIONS

1. Mark four evenly spaced lines vertically down the large pipe. These will serve as guides for the holes you'll drill.
2. Measure 12 inches from one end and mark a line around the circumference of the pipe. For reference, mark this end of the pipe "DOWN" so you'll remember that this end should go down into the soil when assembling your salad tower.
3. Using the hole saw, drill one hole where a vertical line intersects with a horizontal line. Now drill a second hole directly opposite, again at the intersection of a vertical and horizontal line. (Mind you, these holes do not have to be perfectly aligned; just get them in the ballpark.)



4. Drill three more holes along the same vertical lines, leaving about 10 inches (25,4 cm) between holes. You now have two lines of four drilled holes.
5. Drill three holes on each of the remaining vertical lines, offsetting each new hole so that it's placed diagonally from those adjacent to it, making an alternating pattern.
6. To use in the garden: Use shovel to dig a 10-inch (25,4 cm) deep hole in the ground and bury the bottom end of the pipe almost to the first hole.
7. To use on a patio or balcony, drill several holes in the bottom of a 5-gallon (between 18 and 20 litre) bucket or large planter and fill halfway with gravel. Place the pipe on top of the gravel and add soil around the pipe, to the top of the container.
8. Drill about 30 randomly-placed *quarter-inch* holes in the 2-inch PVC.
9. Place small PVC pipe inside the larger PVC so that the top of the inner pipe is slightly higher than the outer pipe. (Add a bit of soil inside the 8-inch PVC to elevate the 2-inch pipe if necessary.) Once established, filling this inner pipe with water aids in getting moisture to the roots.
10. Fill the large pipe with potting soil up to the bottom of the lowest holes, keeping the inner pipe centred.
11. Fold a piece of cardboard into a V and set it inside the hole. Slide a seedling into each of the lowest holes, using the cardboard as a funnel of sorts. Gently push the piece of cardboard into the hole. This helps to prevent potting soil from escaping. Add more soil to reach the next set of holes. Lightly water seedlings in, to settle the soil. Continue in this manner until each hole is planted.
12. Add a few more plants in the top of the tower.
13. Water the tower slowly from the top as well as into the 2-inch pipe.
14. Harvest leafy greens as they mature.



Sustainable Development

Perhaps, you'd like to grow more produce for your family but space is limited. Maybe you're looking to add colorful floral planters to your patio but don't want to infringe on your outdoor living space. Building a tower garden is the solution. Tower gardens utilize vertical space as opposed to planting horizontally in traditional garden settings. They require some type of support structure, openings for plants and a watering/drainage system. DIY tower garden ideas are endless and creating your own unique homemade garden tower can be fun and easy. How to Make a Tower Garden An array of materials can be used when constructing a homemade garden tower, such as old planters, recycled containers, bits of fencing or scraps of PVC pipe. Anything that can create a vertical space for holding dirt and rooting plants can probably be used for building a tower garden. Additional supplies include landscape fabric or straw for retaining soil and rebar or pipe for support.

Read more at Gardening Know How: DIY Tower Garden Ideas: How To Make A Tower Garden <https://www.gardeningknowhow.com/garden-how-to/projects/diy-tower-garden-ideas.htm>

Old tires – Stack them up and fill them with dirt. This very simple homemade garden tower is great for growing potatoes. Chicken wire cylinder – Roll a length of chicken wire into a tube and secure it. Set the tube upright and stake it to the ground. Fill the tube with soil. Use straw to prevent the dirt from escaping through the chicken wire. Plant seed potatoes as you fill it or insert lettuce seedlings through the chicken wire. Spiral wire tower – A double-walled, spiral-shaped frame is made using hardware cloth. The double-wall is filled with decorative gravel. Plants are grown in the interior of the spiral.

Read more at Gardening Know How: DIY Tower Garden Ideas: How To Make A Tower Garden <https://www.gardeningknowhow.com/garden-how-to/projects/diy-tower-garden-ideas.htm>

A. GROWING POTATOES

1. Growing potatoes in your garden can be lots of fun. Read more at Gardening Know How: How To Grow Potatoes: When To Plant Potatoes <https://www.gardeningknowhow.com/edible/vegetables/potato/how-to-grow-potatoes-when-to-plant-potatoes.htm>
2. When to Plant Potatoes When growing potato plants, it is important to keep in mind that potatoes are cool weather vegetables. The best time when to plant potatoes is in early spring. Planting potatoes two to three weeks before your last frost date will produce the most satisfactory results.
3. Read more at Gardening Know How: How To Grow Potatoes: When To Plant Potatoes <https://www.gardeningknowhow.com/edible/vegetables/potato/how-to-grow-potatoes-when-to-plant-potatoes.htm>
4. Planting potatoes normally starts with a seed potato. Seed potatoes can be prepared for planting by either planting whole or cutting up the seed so that there are one or two buds or "eyes" on each piece.
5. There are many ways used for planting potatoes:

STRAIGHT IN THE GROUND – Farming operations and large plantings of potatoes are normally planted this way. This method for growing potatoes means that seed potatoes are planted 1 inch under the soil. As the growing potato plants get larger, the soil is mounded up around the plants.

TIRES – Many gardeners have been growing potatoes in tires for years. Fill a tire with soil and plant your seed potatoes. As the growing potato plants get larger, stack additional tires on top of the original and fill those with soil.

STRAW – Growing potatoes in straw may seem unusual but it is very effective. Lay out a loose layer of straw and put the seed potatoes in the straw. When you see the growing potato plants, cover them with additional straw. Harvesting Potatoes Much like when to plant potatoes, the best time to harvest potatoes is when the weather is cool. Wait until the foliage on the plants has died back completely in the fall. Once the foliage is dead, dig the roots up. Your growing potatoes should be full sized and scattered through the soil. Once the potatoes have been dug up from the soil, allow them to air dry in a cool, dry place before storing them.

B. HARVESTING POTATOES

Much like when to plant potatoes, the best time to harvest potatoes is when the weather is cool. Wait until the foliage on the plants has died back completely in the fall. Once the foliage is dead, dig the roots up. Your growing potatoes should be full sized and scattered through the soil. Once the potatoes have been dug up from the soil, allow them to air dry in a cool, dry place before storing them.

ADDENDUM 11

Diversity

WHAT IS DIVERSITY?

It's a huge world out there and it's full of weird and wonderful things. We may like to think that normality rules, but the truth is quite the opposite! In many ways this is good thing, as it keeps us interested and prevents boredom from setting in. Its wealth lies in our melting pot of cultures, customs, differences between each generation...

Our world will never cease to surprise us and we can start with the people around us. It may be the way they behave, dress, talk... The list is endless! And it's this eccentricity that brightens up our day - just check out the following snaps that are guaranteed to put a smile back on your face!



3 Words that Opened My Mind to a New Meaning of Diversity & Inclusion

Updated September 16, 2019. Cultural diversity is when population differences are well represented within a community. These include race, ethnicity, age, ability, language, nationality, socioeconomic status, gender, religion, or sexual orientation. The group is diverse if a wide variety of groups are represented.

A diverse staff, including differing genders, ages, cultures, capabilities and experiences, tends to stimulate creativity and innovation. Groups and teams benefit when they have access to different opinions. Successful organizations attract, retain and develop a broad range of employees for leadership roles.

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DIVERSITY IN A GROUP

Workplace diversity typically enables teams to use multiple perspectives to solve problems. A collaborative team, with varying backgrounds, experiences and knowledge, is usually able to find new ways of doing things to deliver innovative products and services. If you want to explore ways of promoting diversity at your small business, just ask your employees. Undoubtedly, they have a lot to share. Failure to engage your workforce and exploit diverse

opinions may cause you to miss opportunities for growth and expansion.

DIVERSITY AWARENESS

Diversity awareness, cultural sensitivity, inclusiveness and multiculturalism are buzzwords that employers use in referring to learning objectives for training that encourages employees' mutual respect based on their differences and their similarities. Use of the word "diversity" within the context of work came to be as a result of sociologist and management consultant Merlin Pope, a firm that began providing diversity training in the 1970s. Small businesses and large corporations alike have witnessed changes among their employees as a result of increasingly diverse applicant pools and the emergence of mandatory and voluntary affirmative action. Therefore, workplace training on how to develop interpersonal relationships based on mutual respect can possibly improve cohesiveness and collaboration throughout the workforce.

DIVERSITY IN THE WORKPLACE

Workplace diversity typically enables teams to use multiple perspectives to solve problems. A collaborative team, with varying backgrounds, experiences and knowledge, is usually able to find new ways of doing things to deliver innovative products and services. If you want to explore ways of promoting diversity at your small business, just ask your employees. Undoubtedly, they have a lot to share. Failure to engage your workforce and exploit diverse opinions may cause you to miss opportunities for growth and expansion.

Step 1

Know your audience. Scan your employee census to get an idea of your workforce composition and note the representation of diverse groups in your workplace. For example, determine whether you have employees that represent the four generations in today's workforce: Silent Generation, also known as Traditionalists, who are employees born 1945 and earlier; Baby Boomers, born 1946 to 1964; Generation X, born 1965 to 1980; and Generation Y or Millennials, born 1981 and later. Also, look at your workforce composition from the perspective of such diverse characteristics as race, sex, national origin, disability and veteran status.

Step 2

Convene small groups of employees or schedule training sessions by department. This enables better facilitation and exchange of ideas and feedback if you're teaching diversity within a large employer. Otherwise, for small businesses, an all-staff meeting may be sufficient for groups of 10 to 20 employees. The goal is to encourage participation from all participants by teaching manageable-size groups.

Step 3

Begin each training session with an explanation of why workplace diversity is important. Enumerate the ways cultural sensitivity and diversity awareness benefit organizations and give concrete examples. For example, if you're expanding into a global market, your company may fare well if its sales executives know how cultural differences affect business relationships. Describe scenarios about how multiple generations in the workplace foster creativity, such as Generation X and Millennial employees working collaboratively with Baby Boomer and Silent Generation employees in devising technology solutions to conventional work processes.

Step 4

Provide the foundation for diversity awareness by giving an overview of anti-discrimination laws, such as Title VII and the Americans with Disabilities Act of 1990. Explain the history of these laws and the role of the U.S. Equal Employment Opportunity Commission in enforcing them. Answer questions about Executive Order 11246, which mandates affirmative action for companies that provide goods and services to the federal government. For example, dismantle one of the major misconceptions about affirmative action: hiring quotas. Hiring quotas are unlawful; they are prohibited, according to the federal regulations for affirmative action.

Step 5

Elicit candid and honest, yet respectful feedback from employees. **Encourage two-way** discussions between the facilitator and employees, as well as employee-to-employee discussion. Entertain questions from employees and provide take-aways, such as summaries of laws that support equal opportunity in the workplace.

DIVERSITY IN THE CLASSROOM

What is diversity in the classroom?

Diversity is everything that makes people different from each other. This includes many different factors: race, ethnicity, gender, sexual orientation, socio-economic status, ability, age, religious belief, or political conviction.

Diversity can be defined as the sum of the ways that people are both alike and different. The dimensions of diversity include race, ethnicity, gender, sexual orientation, language, culture, religion, mental and physical ability, class, and immigration status. The field of education includes diverse professional job categories ranging from classroom teachers to education support professionals to higher education faculty to retired professionals. While diversity itself is not a value-laden term, the way that people react to diversity is driven by values, attitudes, beliefs, and so on. Full acceptance of diversity is a major principle of social justice.

The concept of diversity presents both extraordinary promise and daunting challenges for education employees. On the one hand, educators and students have more opportunities than ever to learn about different experiences, languages, and cultures, whether through classroom curriculum, the Internet, or a conversation with a peer or a neighbour. This learning enriches us and prepares us for life in our 21st century, global society.

On the other hand, the education community faces growing challenges related to diversity, such as the academic achievement gaps between students of diverse backgrounds; racial segregation and re-segregation in our schools; gender inequalities and sex discrimination; bullying and harassment of students who identify as gay, lesbian, bisexual or transgender; educating students with disabilities; staggering disparities in educational resources based on class or income; access to education for immigrants; respecting students of all religious backgrounds; and so forth. Institutional hurdles such as high-stakes testing and the lack of resources for “non-essential” subjects make addressing the issue of diversity even more challenging.

Here are some basic strategies for your exploration of diversity:

- Seize opportunities to learn about people of different backgrounds, cultures and experiences—whether through a book, a film, or a conversation
- Examine your own attitudes and beliefs about people who are different from you
- Foster discussion in your workplace about diversity
- Assess the diversity in your school and how students of different backgrounds are faring
- Pursue ways to create diversity awareness or to celebrate diversity in your school community.
- We hope that you will gain useful information, inspiration, and energy from this resource. Please don't hesitate to give us feedback.

ADDENDUM 12

The Power of Happiness

by Roger Martin



Roger Martin

Employees are the backbone of any organization, and as you might expect, studies show that *happy* employees are more motivated, productive and committed. While considerable research has explored the link between an organization's long-term financial success and motivated employees, much less has been said about what actually makes employees happy.

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It's a deceptively simple notion: in order to have happy, satisfied and loyal customers, you must have happy, satisfied and loyal employees. We can readily conjure up images of uniformly happy employees, who are totally dedicated to their jobs and so highly productive that the firm's competitors are left trailing in its wake. **Southwest Airlines** and Canadian steel-maker **Dofasco** quickly come to mind. Southwest Chairman **Herb Kelleher** has said that he puts employees first, "because if you have happy employees, that will lead to happy customers," and with his track record, he should know. **Dofasco's**, recently-retired CEO **John Mayberry**

jective in that the person in question can report whether or not he or she is happy, but an outside observer is not able to make that same judgement, because well-being is entirely *in the mind of the subject*.

The question of whether happy workers matter to firm performance has been asked for nearly a century. Recent work by the University of Nevada's **Tom Wright** and the University of Arizona's **Russell Cropanzano** makes the case that happy employees – defined broadly using the metrics of subjective well-being – demonstrate superior job performance – i.e., that happy employees are better employees. In addition, they suggest that happy employees are

Only slightly more optimistic findings came from a recent study by **David Sirota**, co-author of *The Enthusiastic Employee: How Companies Profit by Giving Workers What They Want*. In his study, employee job satisfaction actually starts out pretty high, but it declines significantly the longer a person works for their employer. Based on a survey of 1.2 million employees between 2001 and 2004, the study showed that employee job satisfaction (on a 100-point scale) averages out as follows:

- Employees with an average of six months with employer: 80
- Employees with one to five years working for employer: 69
- Employees with six to 10 years working for employer: 68

So it would seem that a large proportion of workers are fundamentally *unhappy* with their work life, and getting considerably less happy over time. Rather than reaping the rewards of the power of happiness, firms are suffering from employees with low levels of happiness, which is associated with being highly sensitive to perceived threats in their environment, being defensive and cautious with their co-workers, and less optimistic and confident overall. There is clearly some work to be done in generating employee happiness.

What Generates Happiness?

Research into subjective well-being confirms that certain readily-expected features correlate positively with happiness. For instance, physical health generates happiness – although past a basic level of healthiness, *more* health doesn't generate *more* happiness. A sense of 'physical safety of person' generates happiness – although again, more of the same doesn't generate more happiness after a certain point.

Interestingly, wealth does generate happiness, but for many, only to a limited point. In fact, the aforementioned Conference Board study found that those earning more than \$50,000 per year – generally considered a comfortable living – were only slightly happier than those making less than \$15,000 per year – essentially living in poverty by North American standards. Once a person passes the point of being able to afford 'the normal cost of

Nobody can tell a person that he or she is, or should be, happy. Happiness is an entirely subjective feeling of well-being.

has stated that "satisfied customers are a direct result of happy employees. People can make a phenomenal difference if you can tap into them." The result is a highly-committed workforce: Dofasco's annual turnover is less than one per cent.

What can organizations do to ensure happy employees? While the answer is by no means crystal clear, it is coming into focus thanks to research advances in the fields of subjective well-being and social justice. By combining findings from these two fields, we can see that it is possible for a firm to conduct itself in ways that unleash the power of happiness.

Why Happiness Matters

Happiness is a tricky concept in and of itself. University of Illinois Professor **Edward Diener**, a pioneering researcher on 'subjective well-being' (his term for happiness) points out that nobody can tell a person that he or she is, or should be, happy. Nor is there a set of circumstances that guarantees that the person experiencing them will be happy. Instead, happiness is an entirely *subjective* feeling of well-being experienced by the person, characterized by the presence of positive emotions and the absence of negative emotions. It is sub-

more sensitive to opportunities in the work environment, more outgoing and helpful to co-workers, and more optimistic and confident – all of which are positive features for the organization.

A recent study by Northwestern University's **Forum for People Performance Management and Measurement** broke ground by focusing on employees who do not have direct contact with customers. It nevertheless showed a direct relationship between how employees feel and customer attitudes, concluding that any company that wants to directly impact its bottom line can measure employee satisfaction and know that improvements to it will drive profitability.

So it's clear that happy employees *are* key to success, but are the majority of employees generally happy? Unfortunately, the answer is no. In a recent **Conference Board** survey of American workers, only *half* classified themselves as 'satisfied' with their jobs, down a worrisome 10 percentage points from a mere decade earlier. Two-fifths felt 'disconnected' from their employers; two-thirds did not feel motivated to drive their employer's goals; and one-quarter said they show up for work only 'in order to collect a pay cheque'.

everyday life', more wealth can increasingly be accompanied by less happiness, not more. And with high levels of wealth come increased complications and worries, including concerns about losing the level of wealth one once had.

This is not particularly encouraging news for firms: pay – the simplest tool available and the one most obviously in the firm's control – won't do the trick on its own. But employers need not despair: there is instructive help to be found in the field of social justice, which studies how individuals develop their sense of identity socially, and how that identity affects their engagement in both mandatory and discretionary behaviour in whatever group to which they feel they belong. Research from this field reinforces and clarifies research from the world of subjective well-being by pointing to the crucial role of social group or 'community' in happiness and performance.

Eminent social justice scholar **Tom Tyler** of New York University has shown that individuals develop their sense of identity from feeling *pride* in their place in their relevant community and *respect* for the stature of that community. Positive pride and respect generate positive *identification* by the individual with the community. The benefit to a firm of an employee feeling a positive sense of pride from, respect for, and identification with the firm is a happy employee who will willingly go beyond

strictly set-out *mandatory* behaviours to engage in helpful *discretionary* behaviours.

The research in subjective well-being reinforces the powerful role of the individual's relationship with community, as well as the features of that community that contribute to happiness. Social justice and subjective well-being research can be amal-

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gamated to suggest that there are three community-related drivers of happiness linked together in the reinforcing trilogy shown in **Figure One**.

The Three Drivers of Happiness

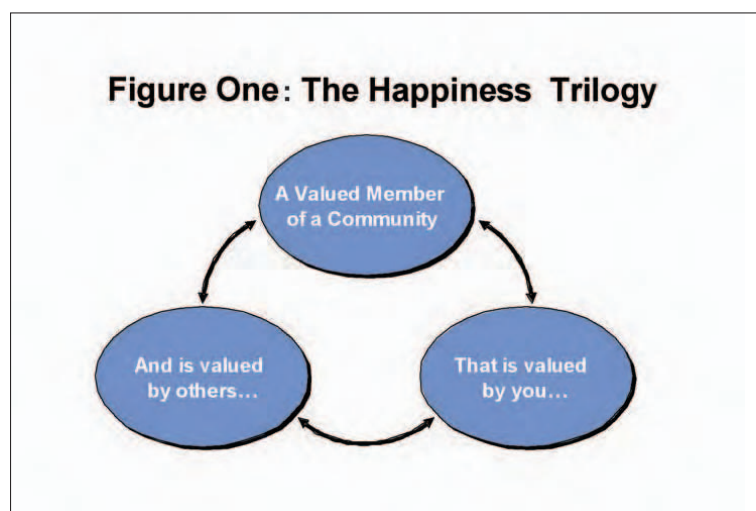
Mother Teresa once said that one of the greatest diseases was "to be nobody to anybody." All of us strive to make our mark on the world and want to feel that our lives are worthwhile – and the work we do is a critical component of our legacy. If we believe that our work has meaning and that we are valued for what we do, this encourages us to remain involved and to seek the next level of achievement.

The first feature that drives happiness is *one's perceived value in the eyes of the relevant community*. Perhaps 'Emily' is seen as the best programmer on her software development team, with whom she works on a daily basis on a multi-year software project. Or 'Peter' is always ranked as the top billing salesman in the plastics divi-

sion of his firm. Each derives happiness from being seen by the rest of their relevant firm community (in these examples, work-group and division, respectively) as a highly valued member. As level of value by the community increases, the feeling of happiness generated within Emily or Peter increases, other things being equal, with no upper limit – higher value means greater happiness.

The second feature of consequence is *how much one values the community in question*. **Groucho Marx** famously opined that he would 'never want to be a member of a club that would have him as a member', a turn of phrase not without the sly wisdom for which he was famous. If a person puts low value on a particular community, it lowers the happiness he or she feels from the value that community places on him or her. For example, perhaps Emily believes her software group is populated with terrible programmers with whom she wishes she didn't have to work; as a result, the fact that they value her highly won't matter much to her and won't generate much happiness. Conversely, if Peter thinks that his plastics firm is the finest in the industry, and he wouldn't want to work anywhere else, he will be doubly happy to be acknowledged as its number-one salesperson.

These two drivers of happiness are interrelated, and can either reinforce each other or undermine each other. When working in tandem, they can generate the significant happiness a person feels from



being a highly-valued member of a community that they value highly. But when one or the other is not operative, it undermines the other: value by an unvalued community, as in Emily's example, undermines happiness, as does lack of value by a valued community: if, for instance, instead of

their firm, they respect their firm as being highly successful, and the business community as a whole tends to laud their firm relentlessly, at least while it is successful.

However, the happiness trilogy can quickly unravel if prominent success turns to prominent failure, as in the case of

world as a laudable firm. Instead, according to allegations, the 'return to profitability' bonuses actually encouraged senior management to illegally overstate earnings and profits to earn the bonus, creating a major accounting scandal that further lowered the opinions of outsiders.

The importance of the third element of the trilogy cannot be underestimated. Individuals who are valued members of a community that they value, but that is reviled by those outside of the community, miss out entirely on the third element of the happiness trilogy. For example, extremists of all sorts are automatically challenged with respect to their overall happiness, because even though they may be valued members of the extremist community that they value highly, their communities are viewed dubiously by the mainstream population. In an ironic way, the denial of this third element of happiness by the 'disrespectful' (to them) mainstream may actually drive them to be yet *more* extremist in their ways.

Implications for Business Leaders

Business leaders can use the happiness trilogy to foster a community that generates the power of productive happiness. Each element of the trilogy is critical to the outcome, as evidenced by the ages-old metaphor of the stool: each of the three drivers operates as part of an overall sys-

Individuals who are valued members of a community that they value, but that is reviled by those outside of the community, miss out entirely on the third element of the happiness trilogy.

being seen as the best, Peter was known as the worst salesperson in what he views as the industry's premier plastics firm.

The third feature of happiness is equally interrelated: *the degree to which the community is valued by others outside of it*. Other things being equal, an individual will be happier to the extent that their community is valued more highly by outsiders. If Emily's software group is always held up at firm meetings as 'the firm's finest', her happiness will be positively reinforced. If Peter's plastics firm is written up in the business press as the best performer in the sector, his happiness will be positively reinforced. But if instead, Emily's software group is completely ignored outside of its own boundaries, her happiness will be negatively impacted. She will not be reinforced in her valuing of her software group (driver number two) because of the absence of outside validation (driver number three). The same would hold for Peter if his plastics firm toiled in obscurity.

An example of the 'happiness trilogy' working seamlessly to produce high levels of happiness is evident in Nobel laureates, who are held in high esteem by the field in which they excel; are strongly inclined to respect that field, having dedicated most of their lives to it; and are revered by people around the world, whether or not these people know much about the field in question.

Similarly, leaders of highly successful firms experience high levels of happiness because they are considered important by

Nortel Networks. Prior to 2001, Nortel's leaders would have been hard-pressed to see themselves as anything but highly-respected members of a firm that they respected and was held highly by those outside of it, and the business sector as a whole, since its leaders were frequently consulted on issues of public policy as well as industry-specific issues. However, since 2001, during which time the firm has cut more than 50,000 jobs and endured long periods of financial uncertainty and scandal, its happiness trilogy has systematically unravelled, affecting everyone from senior leaders to the front lines of the organization.

A leader who aims to nurture employee happiness must develop operating systems and a culture that reinforce the role of the individual within the context of the community.

Ironically, the major accounting scandal that drove down an already-sliding level of employee happiness at Nortel was the result of a classically-misguided attempt to restore happiness through pay. Managers were offered hefty bonuses for achieving a 'return to profitability' – as if that would have restored the happiness they lost when Nortel ceased to be seen by the outside

tem; if only two are functioning, the stool will tip over. The power of happiness is unleashed by the three elements working together, and there are implications for management with respect to each element.

The first element of the trilogy – feeling like a valued member of the community – does not derive from a relationship between the firm and a class of employees

— whether it happens to be an ‘exalted’ class such as executive vice-presidents or a lower-level class such as customer service representatives. Value derives from, and therefore necessitates, a relationship between the firm (or a sub-part thereof) and the individual. With respect to some organizational component of the firm, the individual needs to feel valued by that community as an *individual* — valued as ‘one’, rather than as a generic part of the whole.

A leader who aims to nurture employee happiness must develop operating systems and a culture that reinforce the role of the individual within the context of the community. If each individual employee is unaware of what community they are a part, and how that community measures their value as a member, the firm will be incapable of being a positive force in helping the individual be happy as a member of the firm. He or she may be happy, but their happiness will derive from sources outside of the firm, and he or she will not give the firm any credit for their sense of well-being.

In order for individuals to relate to communities within a firm, there have to be communities to relate to. Leaders should view their firm as a nested set of communities, with individuals as the key components of each. Hence, the nurturing of communities — both sub-segments of the firm such as work-groups or divisions and the overall community of the firm — is a key task for business leaders. The drivers of happiness explain why social events such as staff picnics, employee fundraising initiatives, holiday parties, award banquets, and intra-firm sports tournaments are not trivial, but rather essential. They define and enhance communities, providing a vehicle for generating the value of individuals and representing an important component of their happiness.

The social justice research alluded to earlier helps describe how those communities must work in order to reinforce the second driver — the value the individual places on their community. In order to create a community that members respect and with which members identify, Prof. Tyler argues that community members must feel four things: that they are able to participate in problem resolution in their community; that authority figures in their community

demonstrate neutrality in decision-making; that authority figures in the community are trustworthy; and that as members, they are treated with dignity and respect. Business leaders need to promote these features of social justice — in the firm as a whole and its constituent communities — in order to promote the functioning of the second element of the trilogy.

Business leaders must not overlook the third element — the degree to which the firm is valued by the community outside of it. Ensuring that the firm’s true accomplishments are recognized externally in a way that makes employees feel that their community is valued by the outside world, is an important component of the happiness trilogy.


Bearing this out requires careful consideration of *which outside actors* their employees value their firm being valued by. Some leaders assume that employee happiness will be most enhanced by having the capital markets applaud their firm’s profit performance, but it is entirely possible that employees care more about outside observers applauding their firm for being socially responsible, or for being particularly innovative with its products and services. Understanding what outside value and praise generates the highest level of employee happiness is an important component of making certain that the

third element of the trilogy is making an optimal contribution.

Summary

Business leaders who want to benefit from the productive power of happy employees must think systematically about the three drivers of happiness. Starting from the standpoint of the individual employee, they need to make sure that systems are in place to help every employee know which community they belong to, and how they can become valued by that community. Leaders must also assist their nested communities in operating in ways that cause employees to value, and feel valued by, those communities. And finally, leaders must invest in communicating their firm’s contributions to external entities in order that the firm becomes properly valued by the outside world, in ways that are meaningful to employees.

Only once they have ensured that all three elements of the trilogy are functioning smoothly will leaders have harnessed the power of happiness. In the end, if your employees are happy, chances are they will stay — physically and psychologically — with the job and with your company, leading to improved performance and service, and more loyal customers.

And if that isn’t powerful, what is? 





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