

Making a Case for Entrepreneurial Skill Development in Schools

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ABSTRACT

Today's youth is faced with new risks emerging from fast advancing technology such as AI and increased individual responsibilities. With these trend shifts, foundational knowledge alone, without an understanding of the interconnected nature of the applications in real life is not going to effectively prepare the youth for future success. It is therefore imperative to introduce students to the essentials of entrepreneurial mindset early in their middle and high school education.

Although this is a critical challenge faced by youth today, there is very little advocacy for incorporating entrepreneurial skill development in school curriculum.

The intent of this research project is to outlay the foundational skills that are essential to building an entrepreneurial mindset and to recommend a curriculum that will advance entrepreneurial skill development in middle and high school students.

The roadmap of this paper begins with making the case for introducing entrepreneurial skill curriculum, proceeding to the cultural factors that influence skill development, Recommendation, purpose of Case Studies, and concluding summary.

Introduction

The word 'Entrepreneur' is rooted in Sanskrit "Anthā Prerna," which means "self-motivated." Entrepreneurship is the endeavor of finding solutions to the problems around us while providing value to the customers/ society through those solutions. What makes it different from setting up a normal business is the uncertainty of outcome that comes during the process of creating value than simply the economic ones.

An entrepreneur is someone who sees a pain point, a challenge or an opportunity and comes up with creative solutions. They create business/ economic/ social value through their solutions for problems and while doing this, do it as a Service to the people/ community/ society.

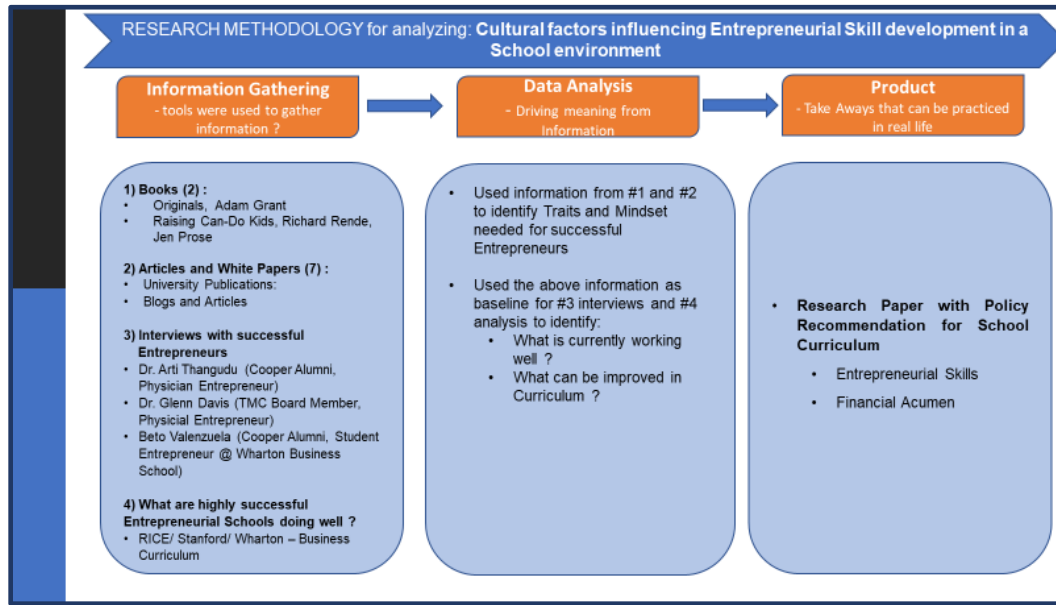
Today's youth is faced with new risks emerging from fast advancing technology such as AI and increased individual responsibilities. With these trend shifts, foundational knowledge alone, without an understanding of the interconnected nature of the applications in real life is not going to effectively prepare the youth for future success. It is therefore imperative to introduce students to the essentials of entrepreneurial mindset early in their middle and high school education.

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The research methodology is outlined below



Problem Description

Research by Dr. Tony Wagner at the Harvard University Innovation lab [1] suggests that the fundamental skills that will position youth for success is no longer on knowledge acquisition but on knowledge application. Not just having knowledge but doing something with the knowledge to solve problems Ability to innovate is critical in addition to learning ability and the ability to process knowledge on the fly.

In a recent survey of over 700 employers [1], the most sought-after skill was talented people who had the ability to make sense of large and sometimes disparate bodies of information and be able to approach complicated issues in new and better ways.

Critical thinking skills are paramount, and children need to develop the ability to think on their own and use every resource and every tool at their disposal to come up with creative ideas to solve a problem. A way of seeing the big picture and understanding the situation at hand and considering different paths to get to a solution rather than using prescribed methods that are easily available is extremely essential in creating innovators.

The Middle school curriculum today is focussed on foundational elements of knowledge acquisition in core subjects such as math, science, social sciences, language. These subjects are studied in a siloed manner. There is no focus on making connections in the application aspects of these areas as it always happens in real life. One of the key disadvantages of this is that children lose interest in individual subjects very easily.

While STEAM based focus is encouraged in high school a huge opportunity is missed in nourishing creative minds into thinking critically and solving age relevant problems in middle school.

It is important to focus on the interconnected aspects of learning because this is what awareness to real world problems and experiences looks like.

It is imperative to make these connections early on in middle school and not force fit later. This may even encourage students to become more confident in choosing their areas of interest in high school. Contextual

thinking, problem solving skills when developed as a natural progression of learning is so much more effective and purposeful for the individual success as well as that of the community.

Catherine Clifford, a writer for Entrepreneur.com [1] in one of her publications has mentioned that one has to be an entrepreneur just to get hold of a job. One of the pre-requisites for hiring employees is their 'adaptation aptitude'. The best way to get this aptitude is through exploring new situations and becoming comfortable with navigating the unknown

Children need to be entrepreneurs when they go into this world, so it is extremely important for them to learn these skills early on in their childhood education. Future success in life will require a range of experiences and the formative years lay a foundation for kids, one that allows them as adults to navigate challenges and opportunities.

To be entrepreneurial and proactive in the face of change is becoming more important than ever in today's economy. Introducing a curriculum that advances entrepreneurial skill development is very important in creating resilient youth who can be successful in the real world.

Essential Traits of an Entrepreneur

Now that the case for introducing entrepreneurial skill development in middle school curriculum is established, let us take a look at the fundamental traits that builds an entrepreneurial mindset.

1) Curiosity – the ability to look for the pain points/ problems to solve/ opportunities around us.

Mindset needed to develop this trait: Empathy

Building this trait:

- Note down at least 1 item everyday (observe a problem/ make a bug-list) and ask how I could have done this better?
- remove yourself from the pain point/ problem and look at it in an unbiased manner. *Ask* – what would I have done better from what it is right now? – this is a continuous improvement opportunity for innovation.
- Learn from your experience - this is connected to Mindfulness. Being in the moment and understanding the painpoint or the problem; putting yourself in the customers' shoes helps to learn from experience.
 - This is the trait that will lead to Innovation.

2) Openness to learning - to be aware (mindfulness) and to listen

Mindset needed to develop this trait: Mindfulness

Building this trait:

- Being mindful and listening to the problem is a very important sub trait
 - Explore diverse perspectives and ways to solve a problem and get value from varied experiences
 - Convert information from listening to experiential learning
- Use this experiential learning to come up with Solutions - Innovate
 - Ex: Steve Jobs listened to where the world was going through his years of experience in understanding trends in technology and put systems in place that will work for everybody at the touch of a button (Apps as solutions). He did not really invent anything new but by being open to listening to diverse perspectives, he applied his experiential learnings through his years in tech to connect the dots and come up with Solutions.

3) 'Act' to Implement Solution – Risk Taking

Mindset needed to develop this trait: No fear of failure

Building this trait:

- This is the trait that is needed to *make it happen* or execute the Solution, in- spite of various obstacles that will come along the way
 - This is connected to informed (data guide the choices) risk taking inspite of the uncertainties of the outcome when trying something new
 - By being realistically optimistic an entrepreneur figures out a path to make things happen by focussing the actions on what can be done in the moment to solve the problem
- 4) Perseverance – expect failures but make this as a learning opportunity
Mindset needed to develop this trait: view challenge as a learning experience
Building this trait:
- Failure is not a stigma – it should be accepted and even celebrated as a learning experience.
 - A cultural example that I have learnt about is the highly competitive academic environments in India/ China/ South Korea/ Taiwan (for ex.) is that there is very little room for failure and only perfect scores are celebrated. This is absolutely counter-intuitive to creativity, risk taking and un-structured thinking and reflects in the low rate of inventions coming out of these countries.
 - The only failure is to miss out on learning opportunities by not trying something new
 - There is no failure - One can either succeed or learn and apply to better the solution
- 5) Leadership – ability to show Purpose
Mindset needed to develop this trait: Service
Building this trait:
- This is the most important, overarching trait that unifies everything
 - This is like the invisible glue because why we are doing something (purpose/ vision) is aligned to not just to the entrepreneur’s growth but to the growth of everyone around them
 - This trait helps the entrepreneur to unite everyone towards a common goal, with service mindset
 → Serving Customers/ Communities at large by solving local and global challenges
 - a. People (teams) get connected for ‘Purpose’ and not just monetary rewards which are small factors. People want to be part of something that they feel good about and that they see value in – this is also how game changing Movements get found.

Evaluation of Options

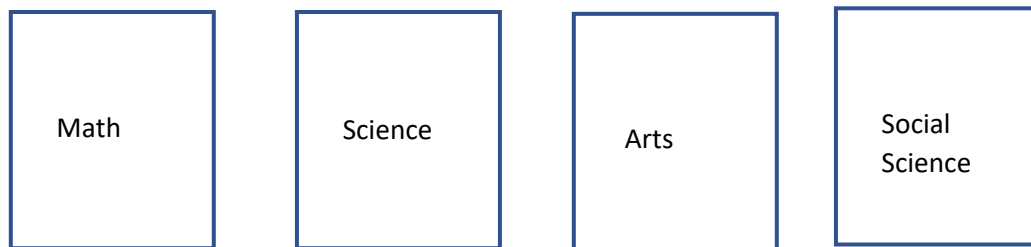
What Personality Traits are needed for Entrepreneurial Mindset	Building an Environment to enable those Traits and Mindset
<p>Curiosity - stems from Empathetic Mindset</p>	<p>How did school curriculum encourage Curiosity/ Creative Thinking</p> <p>1) Created different opportunities for out of the box thinking. Set foundation in the curriculum subjects to help creativity - For Example, Math gets philosophical - then it helps to become creative. Give projects that foster this.</p> <p>2)Did not feel limited or restricted by anything. There was no limitation to capabilities. Self-confidence because of a small/ intimate program</p> <p>3) It was the opposite. School only taught how to take std. tests. Med School was the first time learnt how to think critically. Thinking vs. accomplishing tasks. Socratic Method was pivotal in creative and critical thinking.</p>

<p>Openness to Learning (Mindfulness)</p>	<p>What aspects of curriculum helped in encouraging openness to learning/ adapting - how to make things better?</p> <ol style="list-style-type: none"> 1) Independent Study helped greatly in exploration - bring more opportunities like this 2) Clubs are a great way to explore and bring in new/ creative ideas - don't be afraid to try new clubs or start your own. This opportunity reduces greatly in college - so HS is the best time to do it 3) Semester surveys 4) Focus on emotional intelligence early on. In the past academics was mainly the nuts and bolts of knowledge. How to be the best person; how to handle situations; coping strategies 5) Creative writing class - first original thinking; Film analysis class helped creativity; - no right or wrong answers; reading between lines; looking for nuances; creating an environment with your imagination. 6) Unstructured time in school environment - Study Hall is a great idea. It is critical. This is what they do in college/ Med school 7) having flexibility to attend classes - almost like Hall Pass (but needs maturity)
<p>Act- Risk Taking-Implement Solutions (No fear of Failure)</p>	<p>Creating an environment that appreciates risk taking</p> <ol style="list-style-type: none"> 1) Set up more classes with Pass/ Fail; more like the revision system in HS English 2) take calculated risks - if I fail, I can still use my physician skill to work in a regular job vs. my own business. Have a security blanket that will help take that risk with confidence. Build skillset (academic or vocational) and be passionate about what you do --> this helps in willingness to take risk. failure is not the end of the road but a new opportunity 3) P/F for some courses; Clubs is a great idea for free thinking ideas ; get a job in real world ; showing kids how small businesses work - having phenomenal small businesses that generate revenue
<p>Perseverance (Overcoming Mental Block - view challenge as learning experience)</p>	<p>What are some of the things we can do to overcome mental block that will help us persevere inspite of failures?</p> <ol style="list-style-type: none"> 1) encourage students to voice their own opinion; we can disagree - but all ideas are welcome ; have a great means of communication - like the Entrepreneurship Club setting 2)Entrepreneurship is hard to teach. Suggest having some background in a craft/ skill to stand on. Don't minimize the importance of education. Must have the discipline to Commit and Complete. Getting 'no' for an answer is fine - it is not a big deal. Worst case is you will be where you are. 3) Having Mentors that can coach/ guide/ encourage to persevere

<p>Leadership (Service)</p>	<p>Essentials of Leadership skills and how to foster them ?</p> <p>1) School clubs were a great way to develop Leadership attributes ; Mentorship ; have room for disagreement - this will help in negotiating skills and openness to diverse thoughts 2) After school activities were very helpful in creating bonding opportunities with friends and helped overcome shyness and explore leadership opportunities in middle/ high school ; Saw this as an opportunity to be the change agent --> created own business 3) got to be able to Persevere . Endure things that others may give up on; Have to care about others; have a Vision ; Do things with intention ; Have to listen to others for different perspectives - may not agree, but need to listened to inputs; Merciful/ Empathetic and caring ; Form good relationships; positive interactions with people</p>
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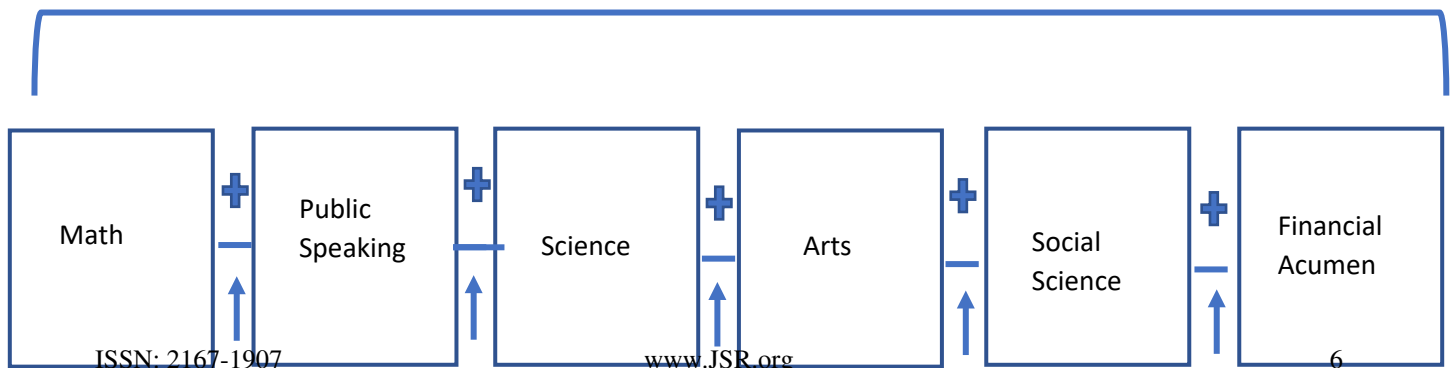
Recommendations

- Complement and connect individual subject area based foundational knowledge acquisition curriculum with an overarching purpose of solving relevant real-world problems by integrating different areas of learning.
- Implement pedagogically relevant Case Studies in Middle School Curriculum.
 - Use Case Studies as the overarching purpose that connects real world applications to different subject areas towards understanding and solving problems.
 - Current middle school curriculum is primary structured as siloed subject areas as illustrated below:



Proposed Curriculum Introduction: Focus On Connections and Interactions

Overarching Purpose: Case Studies - real life applications



Conclusion

Case studies introduces students to interdisciplinary interactions, which is what is experienced while addressing real-life challenges. This mindset advances entrepreneurial skill development, critical thinking and problem solving – all of which are extremely essential skills towards effectively equipping the youth to become future ready.

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