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Innovators Development for Business Relevant Innovation

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*K S Sudeendra Thirtha Koushik

*Department of management studies and research centre
Reva Institute of Technology and Management, Yelahanka Bangalore, Karnataka

Address for Correspondence: serviceheb@gmail.com

Abstract

Every business, small or big, needs Innovation to survive and grow. Since organizations have people as the core of their existence, these people need to be aligned with the goals and needs of the organization. Any organization with Innovation based strategy or focusing on Innovation, has to have Innovators as a part of the organization. The need of such organization sis to have trained, effective Innovators who cande liver business relevant Innovation. But since the current education system in place does not develop innovators in a structured way, we need a tailored, effective and efficient method to develop innovators who are part of the organization or who are hired to be a part of the organization. Such an Innovators development program should be able to deliver results in a very short time frame. We look at the application of such a programinareal-world technology company.

Keywords: Innovation, training, process, learning, business, patents, Intellectual property

Introduction

Innovation is at the heart of business success in today's economy where every organization needs to be innovative in its offerings. This means that the people who make up organizations are to be skilled innovators. Unfortunately, innovation abilities are not taught as part of the formal education of these competent professionals. The on-the-job learning of innovation is more of a trial and error method and hence can be unpredictable, take long time and even ineffective as far as innovation abilities development is concerned. The general presumption of individuals is that Innovation is an expensive and beyond-my-reach skill. This is a misplaced idea and a myth, as most abilities needed for innovation can be learnt by an almost all of us. Innovation involves an employee whose role is that of an Innovator, the organization that offers products and services, and the environment that consumes the offerings, which result in business as shown in *Figure 1 The Triad of Innovation.*

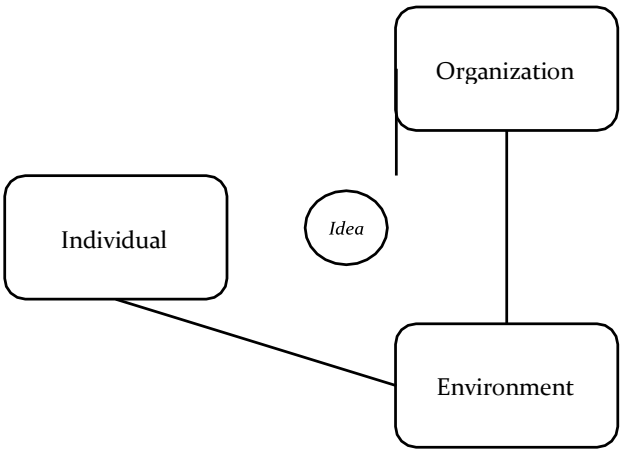

Figure 1 The Triad of Innovation

The individual contribute so the organization by developing wide as which are expected to evolve into Innovation and create growth in business, for the organization. Since there is no formal or structured training this often becomesatrial-and-errormethod. This trap can occur even if the organization has a good innovation process but employees with poor innovation skills. This is because the organization Innovation process is about how tomanage innovation and the missing piece here is about innovation abilities of the individuals which are the source or fountain head of innovation. Individuals develop ideas and innovation, but processes do not generate ideas, instead help structure and manage the Innovation and ideas. So, for the entire innovation cycle to be effective and successful in addition to the processes, individuals must be trained in innovation abilities. Innovation is not an exact science but is an art also. The important factor about Innovator being effective is that it depends a

lot on the inspiration and confidence of the Innovatorinvolved. So, this model used as a basis for training aims to leave the participants skilled and inspired to innovate.

A fortune 500 Multinational Company with a Technical R&D Centre in India has the objective of supporting local markets as well as global customers. This R&D centre is are nowned centre, globally respected and recognized for its technical expertise and excellence which serves major automakers across the world. The R&D centre comprises mainly of graduates, masters and doctoral level engineers. This unit is a subsidiary of a European MNC and considered one of its biggest R&D centers in the world. This R&D centre has close to a couple of thousand engineers working on cutting edge technologies and projects and continues to grow in the headcount of engineers working on such projects. The R&D centre delivers projects worth millions of dollars, but of course amidst great competition. So, to remain competitive, one of the key goals of this R&D centre is to be very innovative in its offerings. The value of innovation is critical for the center to sustain their leadership and demonstrate technology leadership. Along with innovations that their customers appreciate, the centre is also measured on the number of patents and other intellectual property it creates. To achieve this the centre depends on its people to be effective innovators. Added to this the centre was adding people to its payroll very fast and it needed to make sure the innovation journey is made apart of the jobs of people. To achieve this, they needed to develop their Innovatorsina structured way. This is when the centre business heads and the HR heads discussed with us to design a suitable program to effectively develop Innovators who deliver business relevant Innovation. The goal was to design and implement a program that would help their people become effective Innovators.

Program Design

A typical Innovation cycle consists of three phases – Ideation, Implementation and Value Realization phases. Each of these phases have four skills necessary for an Innovator to deliver effective Innovation. The Innovation phases and skills of Innovator are listed below in Figure 2 Innovation phases and skills.

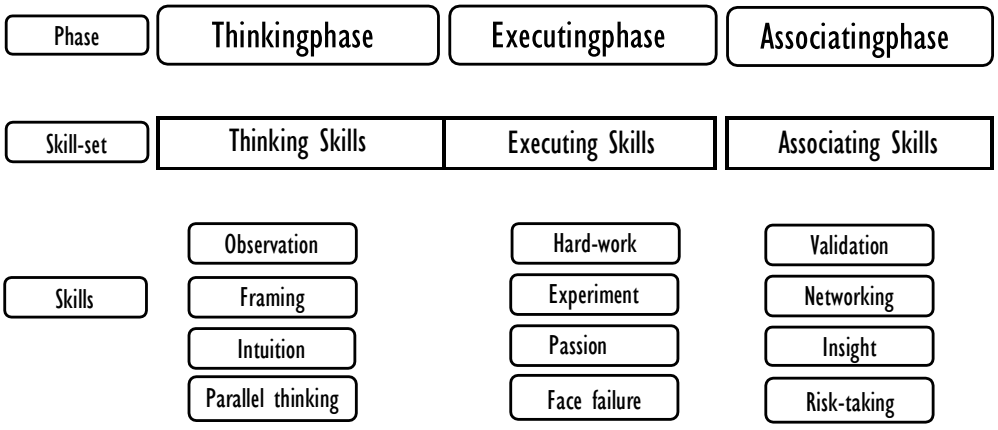

Figure 2 Innovation phases and skills

After multiple discussions a program was drafted to develop the skills of Innovation for theseengineers.Theplanwastotrainabatchofengineersusingtheabove Innovationskillsmodel. The program design mainly consisted of not only learning about the Innovators skills but also applying the same in a real-world opportunity. This opportunity should be relevant to the company's business and hence impact the business positively.

The training program consisted of two parts.

- Innovator skills building workshop – to discuss the concepts and framework of the innovation process and innovator skills
- Mentoring sessions – a series of mentoring sessions to help apply the skills learnt in the workshop on real world examples

Thefirstpartwasan'Innovatorskillsbuildingworkshop',designedtodiscusstheconcepts and framework of the innovation process and innovator skills. The second part was a series of 'Mentoring sessions' to help apply the skills learnt in the workshop. In the mentoring phase, the engineers were organized into teams of two to implement the innovation process and innovator skills in real world examples.

The overview of the process, the program design is shown below in Figure 3 Program Design.

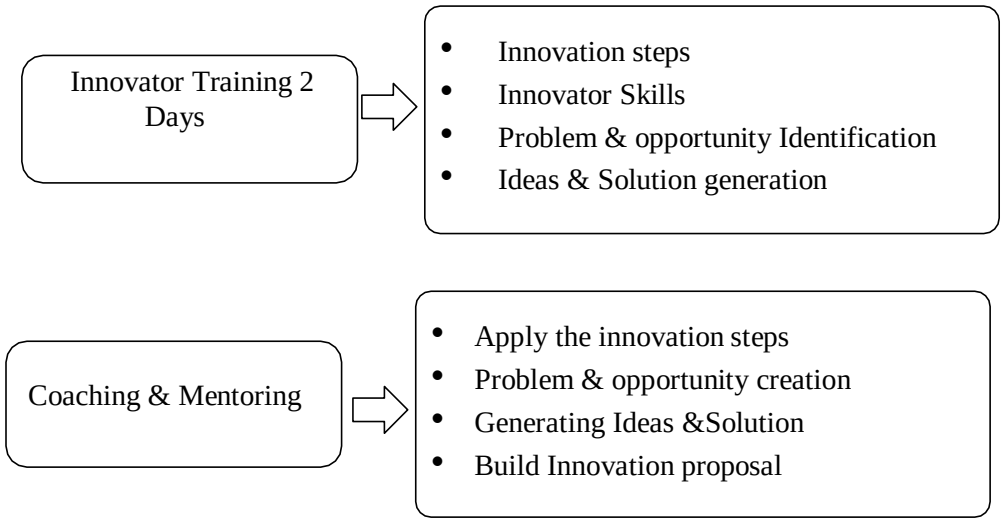

Figure 3 Program Design

The Innovator skills workshop focused on the concepts of the model, the innovation phases, the roles of the innovator and the skills of the innovator necessary to succeed in the role of an Innovator. In the workshop, the entire program design and the processes were explained, several real-world examples were used to articulate the concept to innovators and innovation or business.

The workshop had exercises as opportunities to try the skills learnt to develop innovations.

Subsequent to the workshop, the mentoring process was initiated which focused on the application of the workshop learnings. The mentoring sessions were one on one sessions with the teams of engineers. The innovation phases and Innovator skills were discussed in depth in the context of applying these skills to the come up with innovation relevant to their business. The opportunities to apply the skills learnt were based on the focus areas, chosen by the business owners. Hence, by design the opportunities picked up by the engineers were relevant to the business. This would ensure that the innovation that they come up with will be creating a positive impact on the business.

Program deployment steps

The program deployment consisted of deploying the two steps, Workshop and Mentoring as shown in Figure 4 Program deployment steps.

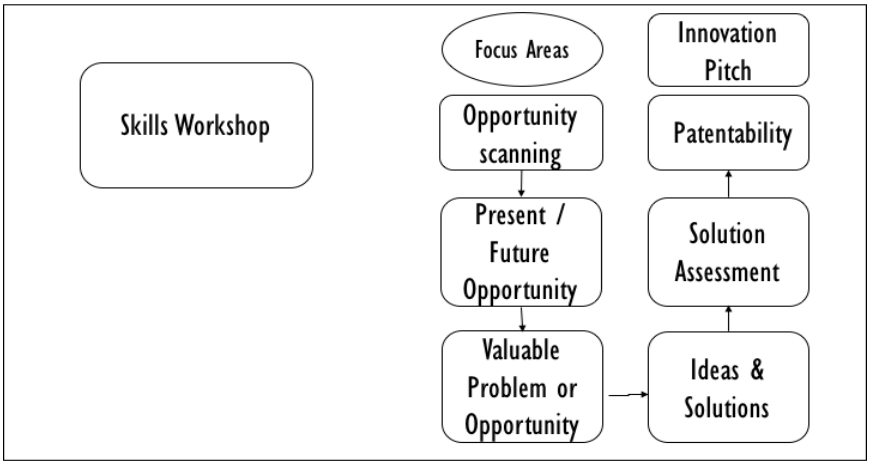

Figure 4 Program deployment step

The focus areas identified by company's business owners served as the boundary for the entire program. The focus areas were used as inputs to the innovator development program to develop Innovation. The various steps are explained below.

The first step, opportunity scanning, was to explore the opportunities and identify several opportunities to innovate. Further the selected opportunities were qualified with data to classify it as a valuable opportunity. Once a particular opportunity was selected, for that selected valuable opportunity various ideas were generated. At this stage the quantity of ideas were given priority over the quality of ideas. From this list of ideas, solutions were developed and assessed, compared with existing solutions. Subsequently the best solution was selected and evaluated for patentability. The final part of the program was when the business factors were considered to underline the business impact it can have. Also, during the same time prototypes were developed to solicit feedback on the selected solution. The

final results were presented to the management and business owners.

Program Deployment

The program was run on multiple, diverse and temporally different batches. The findings of the program deployment and the outcomes for two batches are discussed below.

The first batch consisted of 80 engineers and the entire program lasted about twelve weeks in calendar time. This batch of 80 engineers going through this pilot program, could generate 190 business relevant ideas in the focus areas given by the management. These areas were selected based on business relevance, and of the 190 ideas generated, 35 ideas were assessed to be patent worthy. This was a very encouraging result, especially getting 35 ideas worthy of a patent insuch a shorttime.

The second batch had 127 engineers and were made into teams of 3 each. This batch also went through the same steps as the previous batch. For this batch the focus areas were different than the first batch. The key metrics of the output of this program for the first and the second batch is shown below in Table 1 Key metrics.

Table 1 Key metrics

Batch	Batch size	Program hours	Patentable Ideas
1	80	26	35
2	127	26	36

Apart from the business metrics several parameters were measured to evaluate the effectiveness as an Innovator. The measurement focused on the improvement in the individual's skills and the over all Innovator's confidence to be an Innovator and to deliver business relevant innovation. This assessment was conducted using a survey questionnaire electronically administered directly to the participant of the program. The results for each of the item son the questionnaire is shown below.

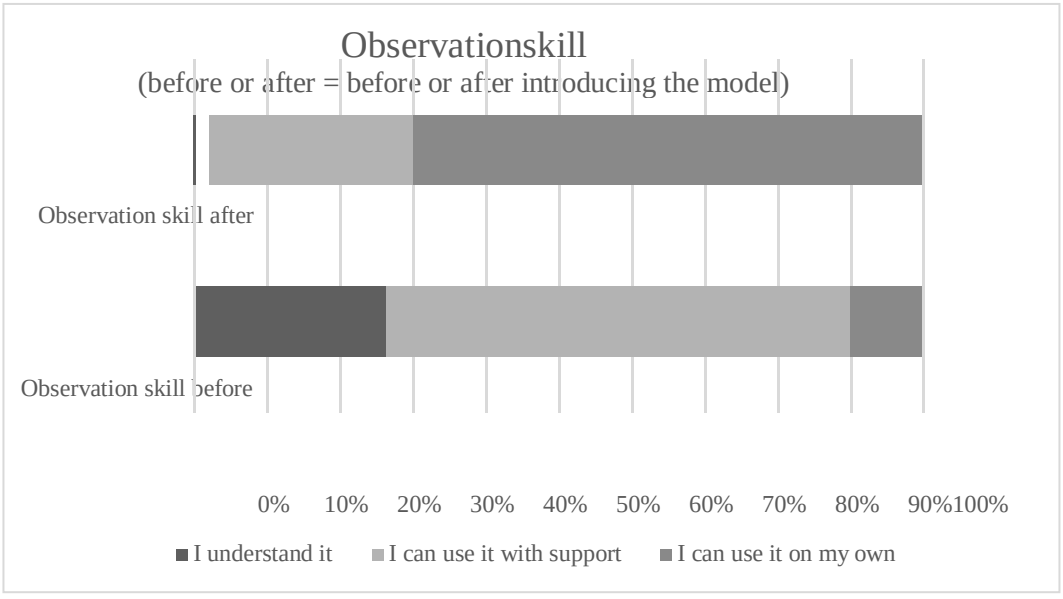

Figure 5 Program steps

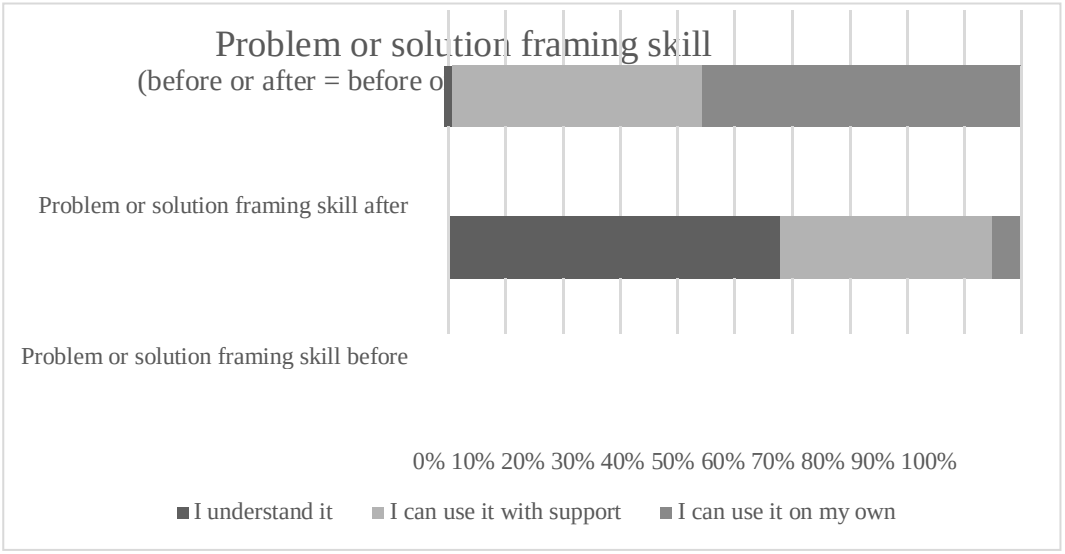

Figure 6 Problem or solution framing skill

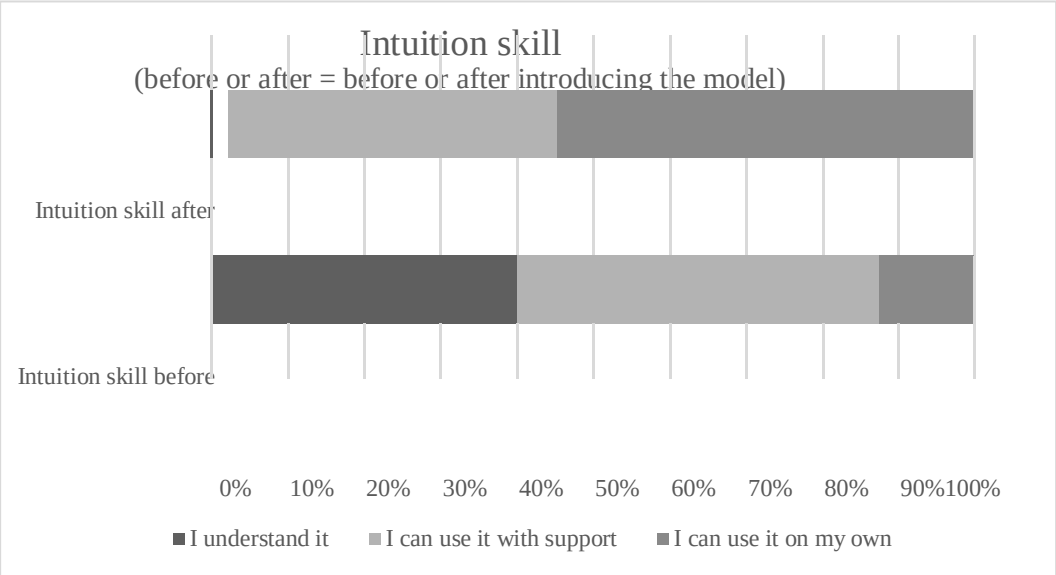

Figure 7 Intuition as a skill

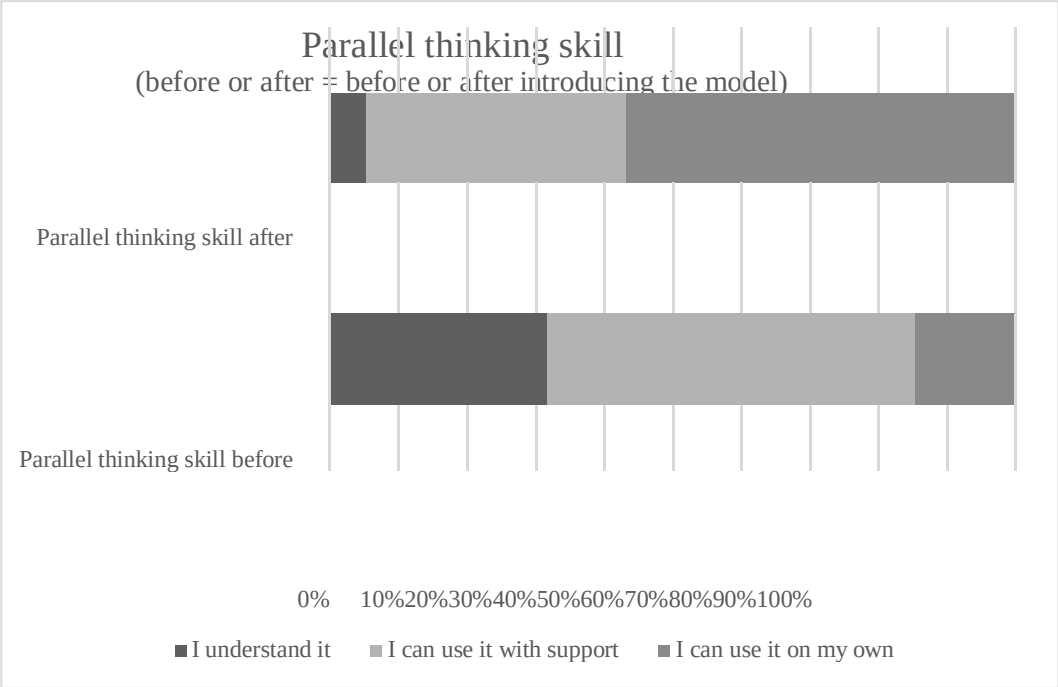

Figure 8 Parallel Thinking skill

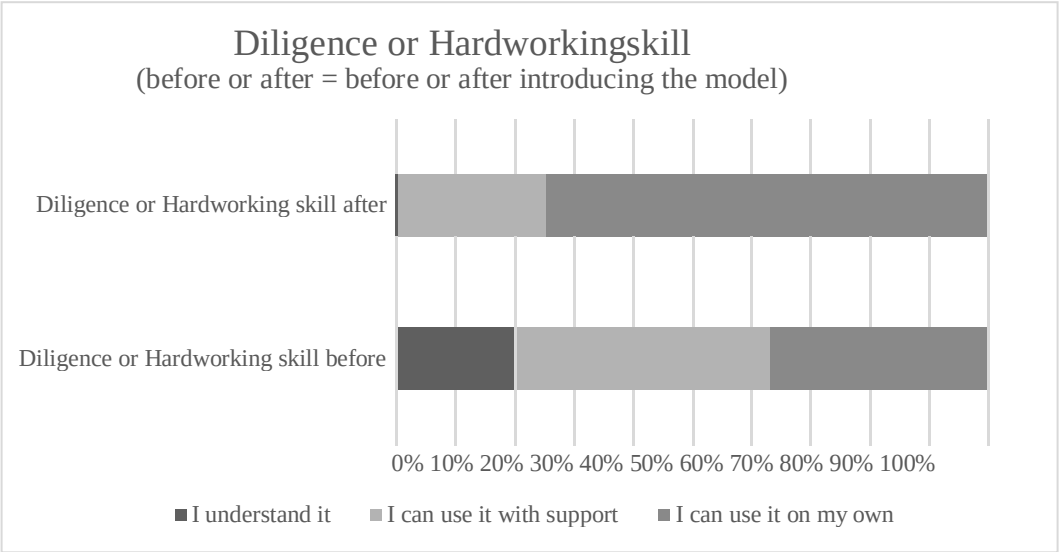

Figure 9 Diligence or hardworking skill

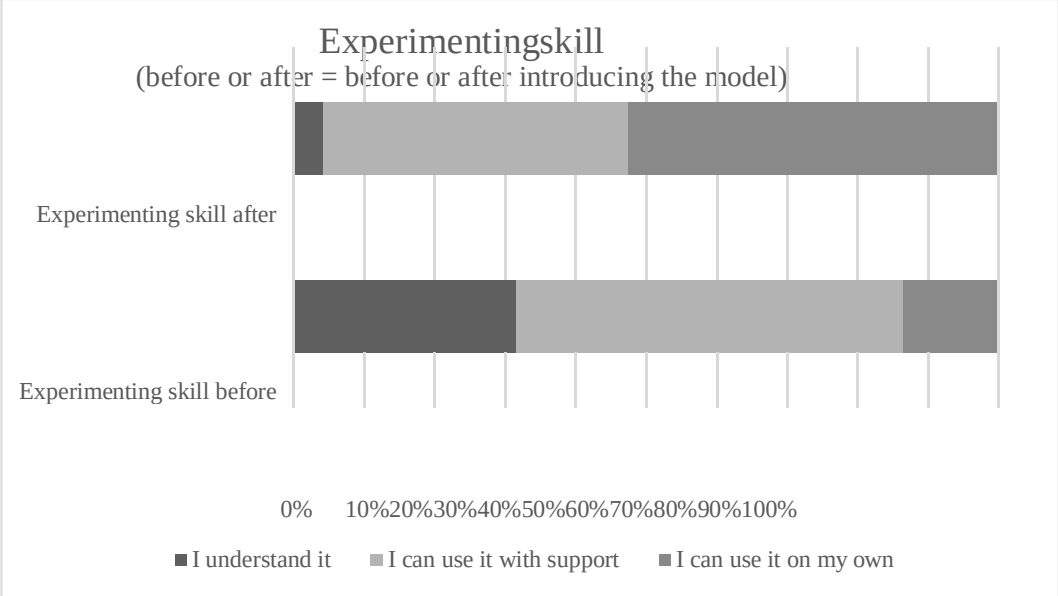

Figure 10 Experimenting skill

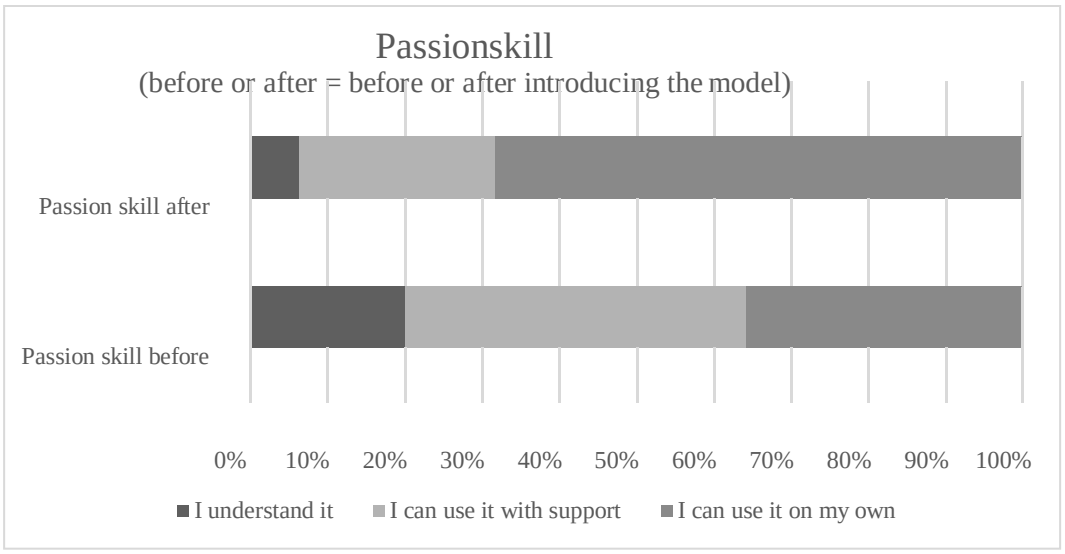

Figure 11 Passion as a skill

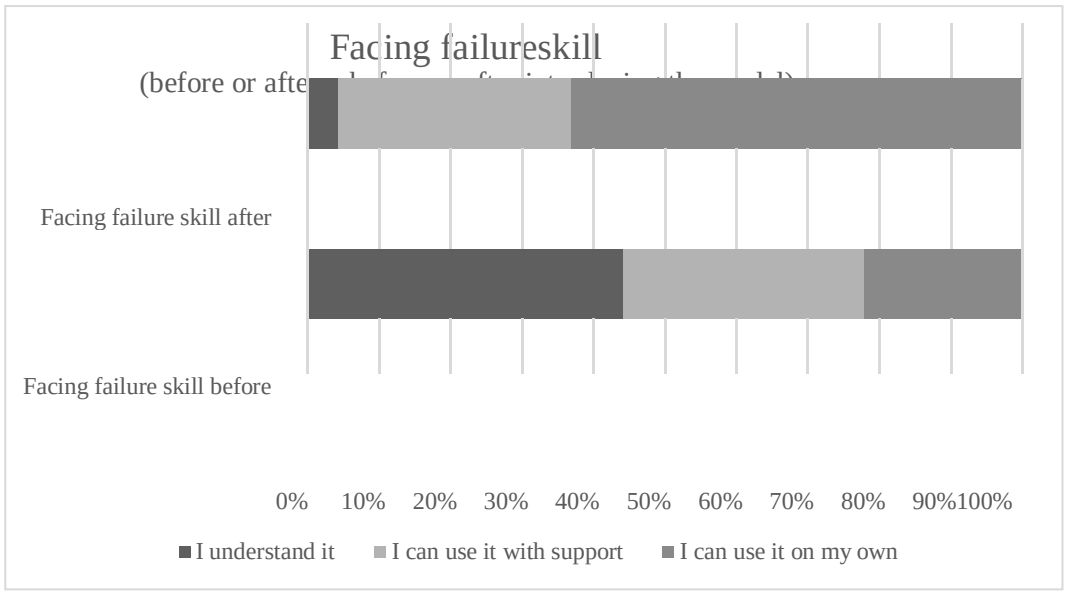

Figure 12 Facing failure skill

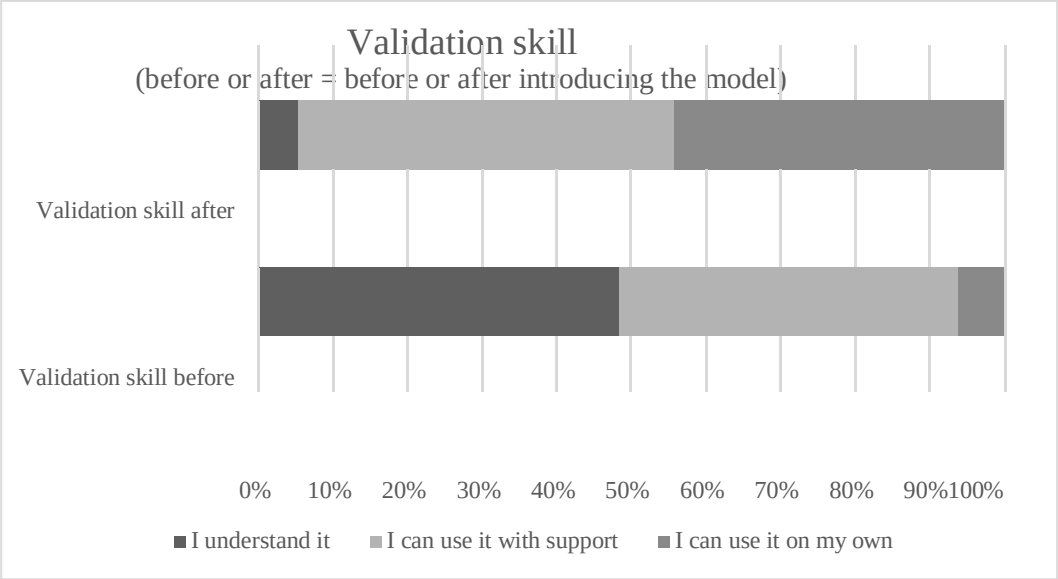

Figure 13 Validation skill

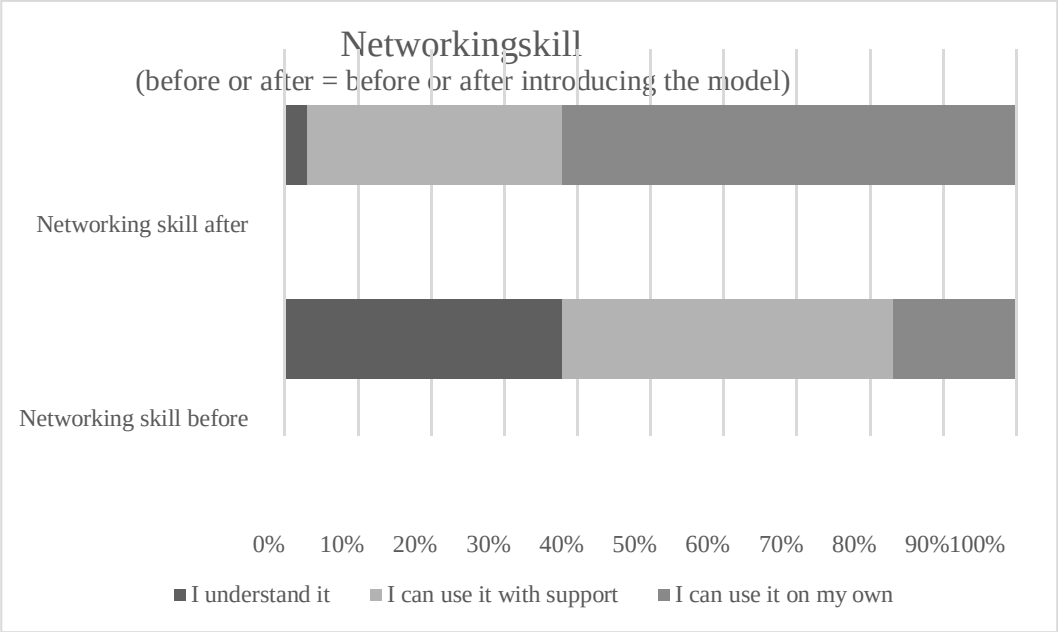

Figure 14 Networking skill

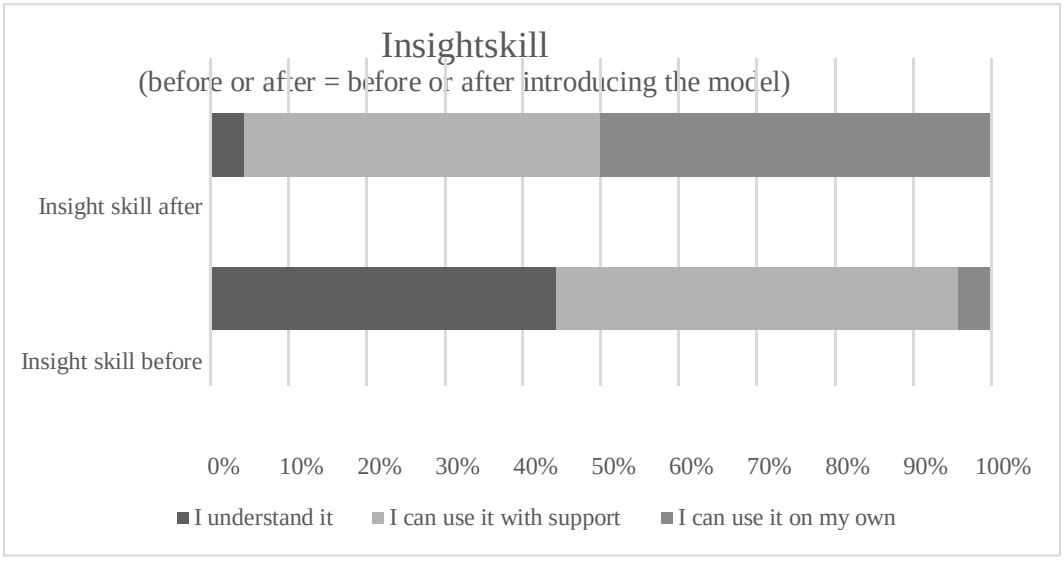

Figure 15 Insight skill

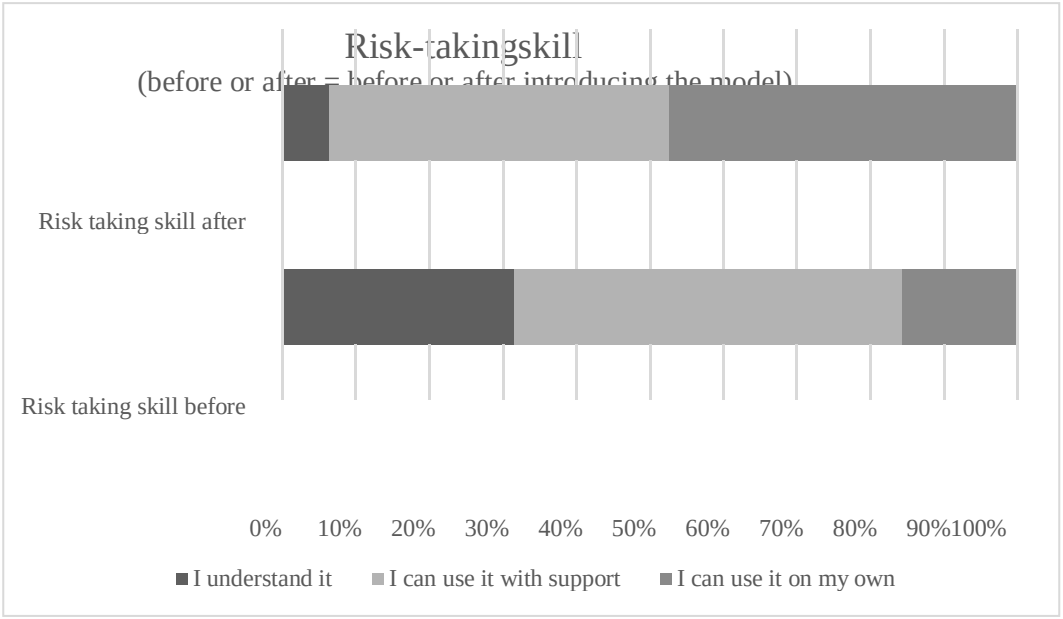

Figure 16 Risk-taking skill

The other key, summative question asked to the participants of the program was their confidence in using all the skills to be a confident innovator. The responses are captured below.

Figure 17 Confidence to be an Innovator (before the program)

Figure 18 Confidence to be an Innovator (after the program)

Conclusion

An effective program designed to link the Innovation cycle phases – Ideation, Implementation and Value Realization phases to the twelve skills necessary for an Innovator to deliver business relevant innovation has been designed and deployed successfully. The results from the two diverse batches show the business outcomes are significant as the results show and can be achieved in a very short time frame. Also, the other important conclusion is that the individual Innovators skills are effectively enhanced. Most importantly the confidence of individual Innovators is emphatically enhanced after the program compared to the level before the program. This program can thus be deployed across organizations who have a need for Innovators in their organization.

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