Evidence-based Creative Training Techniques

Prof. Aly Abdul Samea Qoura Mansoura Faculty of Education



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IJESTD@foe.zu.edu.eg

البريد الإلكتروني للمجلة E-mail

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This paper introduces four basic components for enhancing creativity and creative training. First, the most ingenious ways to being creative are discussed, then sources of creativity and innovation are delineated, then creative training techniques are illustrated and finally, tips that lead to success in training education are presented.

The majority of us regard creativity as an awe-inspiring, almost magical gift that some people are simply born with. But just as creativity can be expressed in many different ways, it can also be learned and sharpened like any other skill.

How to become creative

In the modern world, there is no room for the humdrum or mundane. A clever and inventive mind opens doors to success. Here are five ingenious ways you can begin training your mind to be more creative and innovative.

1. Seek to use both sides of your brain.

Don't fall for the myth that right-brained people are more creative while left-brained people are more analytical. True creativity comes from using *both* sides of your brain.

The most imaginative ideas must be logical and rational in order to work. The most scientific and analytical of approaches must still be unique, thoughtful and ingenious.

In fact creativity requires a whole-brained approach because it requires lateral thinking, or thinking about things in new ways. When we "think outside the box," we devise fresh approaches to solving problems and meeting challenges.

Work to build your whole brain by using both right and left sides. Try juggling or doing origami, or just do daily activities like writing your name or brushing your teeth with your non-dominant hand.

Start looking at things differently -- literally -- by wearing your watch upside down or using your phone upside down. Try writing backward: it worked for Leonardo da Vinci, who wrote his notes in "mirror writing."

2. Cultivate a thirst for knowledge.

A lifelong thirst for knowledge will fuel your creativity. A thoughtful and intelligent mind demands a constant flow of information. By continually learning and growing, you feed your mind with ideas and expand your thinking. Seek to be broad-minded and open to new concepts and approaches.

This includes being willing to try different ideas and not just dismissing something you disagree with out of hand. Communication isn't a one-way street. It means being willing to question everything, to keep yourself motivated and curious about the world around you.

Work to develop both vertical knowledge, which is a deep dive into a particular topic, and horizontal knowledge, which means having a solid amount of understanding in a wide variety of fields.

3. Explain things back to yourself.

Being creative also requires that you understand the information you have been given. It's one thing to read a book and study a subject, but it's another thing entirely to be able to explain that topic to someone else (or yourself). Being able to explain new knowledge shows that you have processed and internalized the information on a deeper level.

If you can explain something back to yourself, you can also expand on it, reshape it in your own unique vision or integrate your own ideas. You can follow threads of ideas and create new concepts.

4. Take breaks to "switch on" your creative side.

Have you ever been hard at work at a task that required problemsolving, feeling like you're on a roll, only to realize later your ideas were mostly redundant and uninspired?

Research asserts that our natural inclination is to keep working on a problem even when we aren't making headway. When working on an idea that requires creativity, we often reach a dead end without realizing it. Research shows that it's crucial to take breaks at regular intervals to give your mind a chance to refresh.

Set a timer, and when it goes off, switch tasks. Do something else for a while, and then return to your original task. Doing this will help you switch on your creativity and keep your problem-solving productive and innovative.

5. Let your imagination run wild.

One of the best things you can do to hone your creativity is to tap into the natural imaginativeness and ingenuity that you had as a child. We loved to play and pretend as kids. We learned how to create imaginary worlds where anything was possible. We enjoyed challenging ourselves with games and tests of skill.

Give yourself time to let your mind wander, to explore, to daydream, and then use the ideas that surface as part of your brainstorming. Challenge yourself with creative exercises, such as doodling in a sketchbook or writing flash fiction.

Keep a journal of your ideas, however fantastical or impractical they might be. Giving your mind time to dream and problem-solve is a great way to build your creative muscle.

The above mentioned are just few of the many ways that help people to become creative. Following are a number of sources of creativity that should be utilized by all learners and trainers.

Sources of Innovation and Creativity

There are a number of sources for creativity and innovation.

Karlyn (2006) asserts that creativity arises through the confluence of the following three components:

☐ **Knowledge**: All the relevant understanding an individual brings to bear on a creative effort.

 $\hfill\square$ Creative Thinking: Relates to how people approach problems and depends on personality

and thinking/working style.

 $\hfill\square$ Motivation: Motivation is generally accepted as key to creative production, and the most

important motivators are intrinsic passion and interest in the work itself.

Howard Gardner goes deeper into the topic and explains that there are two types of

knowledge that may be required for creativity. On one hand, indepth experience and long-term

focus in one specific area allows people to build the technical expertise that can serve as a foundation, or playground for creativity within a domain.

Amabile suggests that key aspects of creative thinking are:

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 \Box Comfort in disagreeing with others and trying solutions that depart from the status quo.

□ Combining knowledge from previously disparate fields.

□ Ability to persevere through difficult problems and dry spells.

 \Box Ability to step away from an effort and return later with a fresh perspective ("incubation").

Indeed many theorists see motivation as the most important component of creativity. Much of

Amabile's work has focused on the role of intrinsic motivation and ways in which intrinsic

motivation can be enhanced in the classroom and workplace. *Intrinsic Motivation Principle of Creativity*: people will be most creative when they feel

motivated primarily by the interest, satisfaction, and challenge of the work itself—and not by

external pressures.

Environment: a non-threatening, non-controlling climate conducive to idea

combination and recombination, such as the "intersection".

An explicit decision to be creative along with a meta-cognitive awareness of the

creative process can go a long way in enhancing long-term creative results.

Creative training techniques& Strategies

A creative trainer has a number of roles to play using different strategies and techniques UNECO (2004), ADB (2009), and Abram and Moher (2010). The first amongst them is a facilitator. **An experienced facilitator have the following skills:** The ability to intervene in a way that adds creativity to a discussion rather than leading the discussion and taking away creativity from the group. The ability to understand the group process and dynamics – successfully address these inequalities in the group dynamic Who is dominating in the group? And how stop them Who is withdrawn? And how to involve them Who looks bored? And how to draw them in to the process.

The most important lesson of all is to have FUN.

Workshops need to be enjoyable for both the workshop participants and the

workshop facilitator - a joyful learning environment will greatly assist the learning

process.

Workshop participants will remember vital information if the information is presented in a lively way.

Good facilitation techniques should...

Help the participants to be comfortable with each other

Create a fun and interesting learning environment

Boost the energy levels of workshop participants

Organize interesting and productive group work activities

Use participatory activities which enable dynamic reviews of what has been learnt

Increase group activity so that workshop participants can expand on the new

knowledge they have received and localize that knowledge.

The creative trainer uses a number of training techniques that vary according to the steps of the training itself.

I. Icebreaking techniques

Icebreaking techniques are used in training programs, especially at the beginning, in order to promote interaction among participants and resource persons. Icebreaking is also useful for reducing shyness and lack of confidence among participants. If successfully applied, icebreaking can make participants more enthusiastic and willing to take part in the training activities. Icebreaking can provide amusement, relieve boredom, reduce tension and stimulate creative thinking. When we select icebreaking activities we should consider those that ensure physical movement and/or mental exercise. Depending on circumstances, we can organize activities that require the involvement of participants as a group or their participation as individuals

"Icebreakers" are techniques which can be very helpful to:

Help participants get to know each other and become comfortable with each other at the beginning of a workshop.

Help energize participants at the beginning of a new stage of a workshop

Encourage team working and creative problem solving.

Icebreaker. 1 - Stand up if you ...

General questions - to get the participants laughing and offering a little bit of

information about themselves

More specific questions linked to the workshop material

For example: Stand up if you ...

... are already married

... are still single

... are looking for a prospective marriage partner

Icebreaker. 2 - Introduce Your Partner

This icebreaker provides time for participants to get to know each other and gives them

an opportunity to practice their inquiry skills.

Energizer techniques

Energizers are very useful techniques for physically and mentally stimulating participants to resume training activities. Energizers are useful at the end of a long session to refresh participants so that they can take part in the next session. Energizers can be used during a long session to reduce boredom and monotony.

There are two kinds of energizers: those that require physical movement and

those that require mental work/exercise. It is up to the facilitator to decidewhich is most appropriate. Through energizers we can develop a sense of team spirit among the participants that can facilitate a congenial atmosphere for learning.

In brief "Energizers"

There are times when people's energy is low during workshops, particularly after a long

lecture or after a break. After lunch time workshop participants tend to be tired while

they are still digesting. "Energizers" are fast and fun ways to :

Get people laughing

Put people at ease

Get participants refocused on the workshop

Following are two examples of these techniques:

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What's on your back?

How?

(1) Explain that in this exercise the participants will be asked to identify what is written on their backs.

(2) Write any name (a person, an object, etc.) on a piece of paper.

(3) Attach this paper to the back of a participant.

(4) Ask him/her to identify what is written on the paper by asking the other participants questions. Participants can only answer yes or no. They will not be allowed to give any hints while replying. (Ask 10-15 questions.)

(5) If the participant fails to answer, try it with another person.

Time required: 5-10 minutes

2. Multiple use of a marker pen

How?

(1) Ask participants to form a circle in the middle of the training room.

Tell them that they will now play a game that requires innovative thinking and performance skills.

(2) Take a comb and demonstrate how it can be used to write and as a knife to cut something.

(3) Hand over the comb to a participant and ask him/her to demonstrate something new. After

his/her performance, the participant hands over this comb to another participant to show

something new using the same comb.

(4) Ask other participants to guess what the demonstration is about.

(5) Continue this exercise until everyone finishes their performance. *Time required:* 10 *minutes*

Note: Trainers can use any object – comb, paper, handkerchief, rope, etc.

II. Discussion Techniques

Group discussion is a technique in which the participants are divided into groups to discuss certain issues or topics. They share their opinions and experiences while discussing the topic within a given time frame. Some group discussion techniques, such as case study, role-play and the gallery technique, require advance preparation (e.g., printed materials or display board .) Discussion methods are very useful:

• for analyzing problems, finding causes and defining strategies

• for learning about or better understanding the previous knowledge and experiences of the participants

• for learning to respect and tolerate the opinions of others

• in areas where group dynamics and the perspectives of the participants are required

• in areas where the active participation of the trainees is required.

Some Common Group Discussion Methods

1. Brainstorming

What?

Brainstorming is a training technique generally used for problem solving or generating a number of possible solutions to a problem. Brainstorming is a process in which the maximum number of ideas related to a certain issueare generated in the shortest possible time by means of collective thinking.

In this process, participants are encouraged to express their views openly. Initially participants accept all ideas and later on reach a decision after their analysis.

This method is employed to generate more ideas in less time. It stresses the use of "open-mindedness" or "free thinking" without criticism of any ideas expressed. The goal of brainstorming is to come up with as many ideas as possible without regard to quality, with as many team members as possible contributing their thoughts.

Here the quantity of ideas is far more important than their quality. Even the wildest idea is accepted as well as recorded. The specific objectives of this technique are to develop the ability to arrive at a decision quickly and to help consolidate previous learning.

How?

• Ask participants to sit in a circle or in a "U" shape.

• Nominate a recorder who records the discussion points.

• Have the recorder sit near the board or flip chart, ready to write down the ideas given by the participants.

• Appoint a team leader to facilitate the discussion.

• Describe for participants the problem or issue for discussion (e.g., the village people are not very interested in

attending the CLC regularly. What might be the possible reasons?).

• Have the recorder write down the problem

or issue in bold letters on the board/flip chart.

• Ask the participants to express their opinions freely on the issue, stating whatever comes to their mind immediately. Allow

no criticism, debate or consultation among participants.

• Encourage all participants to express their ideas or opinions quickly.

• List participant points on the board/flip chart.

• Allow no discussion, comment or criticism until all participants have exhausted their ideas.

• Once all ideas have been presented and recorded, verify and prioritize these ideas if necessary.

2.Station technique

What?

This is a technique where the topics of the training session are divided into several parts (or subtopics) for detailed discussion in order to elaborate different views and ideas related to the issues identified. The participants are divided into groups depending upon the number of subtopics to be discussed.

If the topic is divided into three parts, then there are three" stations." If it is divided into four parts, then there are four "stations." Participants are then required to move from one station to another.

Each part of a topic should be one that participants can discuss

independently from other parts of the topic. Any separate part should not be dependent on the discussion results of other parts. For example, the SWOT (strength, weakness, opportunity, threat) of an issue are good subtopics for independent discussion., However, the objectives, outcomes,

and activity plans of a project are not appropriate subtopics for this technique, because activity plans should be discussed in connection with objectives, and outcomes and activity plans need to be matched.

How?

• Divide participants into three or more groups or stations.

Assign one resource person or "stationmaster" to each group (station) to help out or clarify the issue to the participants.

• Provide large-size paper or a flip chart to each station.

• After clarification by the resource persons and discussion, group members write down their observations on the paper or chart for the members of other groups to see when they proceed from one station to the next.

• Ask each group to use one particular color of pen for writing down their conclusions in order to clearly distinguish each group's comments from the others.

• Organize participants in the first round as follows:

Round 1 Group A will be in Station 1.

Group B will be in Station 2.

Group C will be in Station 3.

• Ask each group to discuss the issue and write down their conclusions on

the chart or paper. Give each group 25 minutes for the first round. After

they have finished writing, ask them to proceed to the second round. Organize participants in the second round as follows:

Round 2 Group A will be in Station 2.

Group B will be in Station 3.

Group C will be in Station 1.

• In the second round, give each group 15 minutes to add to or modify the conclusions reached by the earlier group, and then move on to the third

round. Organize participants in the third round as follows:

Round 3 Group A will be in Station 3.

Group B will be in Station 1.

Group C will be in Station 2.

Give each group 10 minutes to add to or modify the input of the previous two groups.

Finally, ask all groups to return to their original stations (Group A in Station 1, B in 2 and C in 3). During the plenary session, summarize and share the inputs of the different groups.

3.Parking space 1 – 2 minutes to set up; any number of people

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This makes sure all ideas get recorded and participants don't feel like they've been ignored.

Whenever anything comes up that's not relevant to the discussion at hand 'park' it in the parking

space (a large sheet of paper on the wall). In other words write it up on the paper and deal with it

later. This allows you to stay focussed but reassures participants they will be heard. Of course, if you

want to avoid people feeling ignored, make sure you do deal with parked items! Consider having a

space reserved on the workshop or meeting agenda to deal with parked items.

4. Gallery technique

What?

In the gallery technique participants are divided into three or four groups to discuss issues related to certain topics. Each issue table is provided with abig board with chart paper attached (the "gallery").

Participants in each group discuss an issue and write down their conclusions on the chart paper before moving on to the other issue tables. Each group receives a different color of pen to identify its contributions to the charts.

After writing down their comments on each issue, the participants tour all of the galleries to see what the other groups have contributed. **How?**

• Divide participants into 3-4 groups.

• Select one rapporteur in each group to document the

discussion on the chart paper.

• After the discussion, have the rapporteur write down the main points on the chart.

• Ask each group to use one particular color of pen for recording their

comments on each chart to distinguish their contributions from the others.

• After rapporteurs have written down the main points on their charts, have each group move on to the other groups' sites to contribute their inputs to the respective charts.

• Have all groups return to their original positions to compile the inputs of the different groups and prepare the board as a gallery for the presentation of group findings.

• At the end request all participants to visit all of the galleries to read and learn about the findings of the other groups.

III. Presentation and Demonstration Techniques

1.Demonstration Techniques

What?

Learning through our own experience is very effective. We learn a lot by observing and trying things out on our own, which can also be fun. During

training, presentations give people an opportunity to share experiences, and demonstrations give them a chance to see or even experience new things.

Through demonstration techniques, visual items such as pictures, charts, models and natural objects can be used for the purpose of learning. Demonstration helps to make learning both meaningful and realistic.

When?

This method is especially useful for illustrating the practical applications of general concepts. It can also be used to promote participatory learning through the introduction of new ideas or skills, such as making bamboo baskets, for example.

How?

- Briefly describe the objectives of the demonstration.
- Place the materials/visuals in such a way that all

participants can see.

• Carry out the demonstration.

- Emphasize the key learning point(s).
- Let participants also practice the demonstration.
- Ask questions to see if participants have

learned anything.

• Encourage participants to express their reactions to the demonstration.

• Let participants see and even touch the materials if needed.

• Encourage discussion related to the objectives of the demonstration.

2.Presentation Techniques

OHP and PowerPoint presentations What?

OHPs (overhead projectors) and PowerPoint (Microsoft computer software for presentation using texts, graphs, pictures, etc.) are very popular in current training programs. We can use them in our programs to visualize our main points and present them in an attractive way. This will help to make our training sessions successful and interesting. OHP sheets and PowerPoint slides can be easily used even for a large number of participants.

When?

OHP and PowerPoint presentations can be used in almost all sessions:

- to raise interest
- to visualize concepts and issues
- to get everyone's attention
- to avoid monotony
- to avoid misuse of time
- to make the session interesting

• to ensure that information stays in the minds of participants for a long time

IV. Practice and Exercises What?

During training, participants should have the opportunity to try out or to practice what they have learned in order to consolidate their learning. Through practice and exercises participants become more confident about the issues and activities discussed during the training session. Through practice and exercise, the trainees are learning by doing. Practice and exercises can be either an individual or a group assignment.

The objective is to develop or improve the capacities and skills of the participants in a particular area. Practice and exercises are very useful for consolidating learning and skills, and for developing confidence among participants to do something by themselves instead of being dependent on others.

Some Useful Practice Techniques

Through preference ranking, the situation and problems of a particular area can be identified and prioritized.

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• **Preference ranking** is a very useful technique:

• for recognizing the most important issue and problem among many

• for identifying the weakest issue

• for identifying the better or best activity among others

• for identifying an activity that the participants consider to be the most important one

How?

• Distribute a ranking exercise sheet (see example on the next page) to all participants.

• Ask each participant to prioritize the items in the column for individualranking.

• Ask them to think about causes and reasons before ranking items.

• Explain that the item with the greatest priority will be ranked first and the items with less priority accordingly will be ranked second, third, fourth, etc.

• Encourage all participants to express their opinions on the preference rankingsheets.

• Then divide participants into groups to further prioritize according to group consensus.

• After group prioritization ask each group to discuss the reasons for their choices.

• Ask each group to present its list.

• Summarize by reviewing all groups' priorities.

Worksheet

What?

•

This technique helps participants to put theory into practice, and to adapt and apply the knowledge and information they have acquired to actual problems and situations.

When?

After a thorough discussion of the issue or topic, each participant receives a worksheet and completes it in order to provide information based on his or her own experience or on practical real-life situations (see example on the next page).

How?

• Distribute worksheets to all participants.

• Give clear instructions to the participants.

• Ask participants to complete the worksheets individually.

• After completing the worksheets, participants may share their results in pairs to learn from each other.

V. Learning Assessment Techniques

Assessment helps to identify the strengths and weaknesses of the training program and ultimately to improve it. Before devising any assessment technique, facilitators should clearly identify what they want to assess. In the case of training programs, the following are the most important things to be assessed:

- what trainees have learned
- how well the trainers have performed
- the overall process of training

• the feelings and confidence levels of the trainees in regard to training

When?

Assessment can be conducted at different stages of the training program. It can occur at the beginning, the middle or the end.

Types of Assessment

Generally there are three categories of assessment that can be employed:

- Self-assessment or individual assessment
- Group or participatory assessment
- External assessment

1. Self-assessment or Individual Assessment

Through this technique each individual (including organizers, trainers and trainees) makes an assessment of his or her own performance and achievements. Self-assessment may take place both during and at the end of a training program.

The following tools may be used for self-assessment:

a) Standard questionnaire or checklist

This questionnaire or checklist can be prepared by the organizers taking into account the expected outcomes of the training.

Each participant can fill out this checklist. One example of such a checklist would require participants to rank aspects of the training as A, B, or C, or as bad, good, very good, or excellent.

b) Personal responses

We can ask participants to write down on a sheet of paper their personal reactions to and experiences during the training program. These reflective notes can be very useful in assessing the personal, emotional and qualitative aspects of training. They can be displayed around the walls of the training room.

2. Group Assessment

Interview

Group assessment may also be conducted through interviews. Two or three facilitators may be assigned with the task of interviewing the participants on the basis of a questionnaire prepared in advance. After interviewing the group members, the facilitators compile their views for final assessment. They can present their final assessment results to the group for their comments.

c) Mood meter

The easiest method to measure the reactions of participants (in terms of their feelings) is to use a "mood meter." Usually this contains three columns to record three levels of reaction from sad to happy for each topic. The mood meter is also helpful for indicating the success of a particular topic at the end of each session or at the end of the course.

Confidence Mountain

A similar method can be engaged to assess the rise and fall in the confidence level of the participants at the end of each session or at the end of the course. Participants may be asked to express changes in their confidence levels using the figures of mountains. A big mountain represents a considerable rise in confidence and a small mountain will represent little improvement. Flat land means there has been no change at all. This chart can be maintained individually or by groups.

Training and Education Tips

I would like to share several tips and techniques that lead to success in training and education:

• Get your staff into the habit of learning. The rate of change in the information technology (IT) industry is simply too fast to allow someone to train once and then sit on their laurels.

• Just-in-time (JIT) training is critical. Give your people training when they need it, not several months before or several months after. People will forget the majority of what they have learned less than a month later unless they apply their new skills immediately after training.

• Educate as well as train. Training gives you the skills to do your job, education gives you the knowledge to understand your job. The most important thing that an educational program can do is to explain the interrelationships of the concepts and techniques.

• **Expect to train in a variety of skills**. Software development is complex, and successful IT staff need a wide range of skills.

• **Perform skills assessments for everyone**. You need to understand someone's current skills before you can develop an effective training plan for them. You'll also want to assess their skills on a regular basis to ensure that they are receiving the training and education that they need, many people unfortunately do not actively manage their own training plan.

• **Recognize that not** everyone **learns the same way**. Because no training and education approach is perfect for everyone you will want to create an approach that can be modified to meet the needs of individual trainees. Flexibility is a key success factor.

• **Motivate everybody**. A good strategy is to make the benefits of the new technique/technology, as well as the potential risks, apparent to everyone involved. If people understand what's in it for them, they'll be far more motivated that those who don't.

• **Expect the "I've done it before" syndrome**. It is quite common for experienced trainees , especially the really good ones, to initially convince themselves that they have been doing object orientation all along. This is because new techniques always build on existing techniques. Familiarity with some of the underlying principles of a new technique makes it easy to convince yourself that you've been doing it all along. This problem is usually self- correcting because as soon as someone starts to work on a real project with good mentors they quickly realize that there is a lot more to the new technique than what they originally thought.

• **Getting people into training quickly**. Once you have made the decision to adopt a new technology/technique get training in it as soon as possible. Although it is a very good idea to do some reading on your own, the bottom line is that it is too easy to misunderstand an issue and not realize it. Professional instructors can help you to learn the technique properly and to avoid gaining bad habits.

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• **Train from experience**. Good instructors practice what they preach and that their hands-on experience gives them the confidence and the ability to address tough questions.

Implementation of Creative techniques in the Egyptian Context

"Ideas are useless unless used" . Although few would dispute the validity of this statement, studies that directly examine the conditions that determine when creative ideas are converted into actual innovations, that is, implemented or used, are relatively rare. This lack of systematic attention is especially surprising given that innovation, particularly in dynamic contexts, is widely recognized as being critical to the growth and competitiveness of any organization (e.g., Roth & Sneader, 2006; Tellis, Prabhu, & Chandy, 2009) and, as a consequence, has been of longstanding interest to scholars and practitioners alike (e.g., Rogers, 2003). In order to implement creative change in the training techniques in Egypt, a SYSTEM has to be created and maintained.

Components of Innovation System.

Creativity is the mental and social process—fueled by conscious or unconscious insight—of generating ideas, concepts, and associations.4 Innovation5 is the successful6 exploitation of new ideas: it is a profitable outcome of the creative process, which involves generating and applying in a specific context products, services, procedures, and processes that are desirable and viable. Naturally, people who create and people who innovate can have different attributes and perspectives.

Components of Innovation Systems according to Serrat (2009, 6) :

It is taken for granted that there is no simple universal formula for successful innovation. Nevertheless, there are a number of characteristics for the systems that enhance creativity and harness innovation.

The characteristics of innovation systems are that they recruit and retain highly skilled and trained personnel, give them access to knowledge, and then encourage and enable them to think and act innovatively.

Components of an effective innovation system include:

• Clarity in *mission statements and goals*, which invariably feature a commitment from senior managers to assume responsibility for the risk of failure.

• An *organizational culture* that values innovation, where there is encouragement for personnel to think differently, take calculated risks, and challenge the status quo. Major forces such as leadership, attitudes to risk, budgeting ,audit, performance measurement, recruitment, and open innovation are aligned in support.

• The adequate resourcing of innovation in line with strategy.

• The placing of responsibility for innovation on all staff.

• Understanding that creativity is desirable but insufficient. Innovation ambassadors must still take responsibility for follow-through.

• An enriched *physical workplace* that enhances creativity by providing accessible, casual meeting spots; physical stimuli; space for quiet reflection; a variety of communication tools, e.g., white boards, bulletin boards; contact space for clients, audiences, and partners; and room for individual expression, among others.

• Human resource systems that ensure *staff* have diverse thinking (or learning) styles, giving them a variety of perspectives on single problems.

• Team setups that avoid *groupthink* and balance the beginner's mind with experience, freedom with discipline, play with professionalism, and improvisation with planning. Teams embody divergent and convergent thinking, diverse thinking styles, and diversity of skills; and handle conflict.

• High levels of *decentralization* and *functional differentiation* and a range of *specialized areas* within the organization.

• Processes and methodologies that identify and share *good practice*.

• A *performance measurement* system that measures the innovative pulse of the organization; ensures monitoring and evaluation of inputs, activities, outputs, outcomes, and impacts; and feeds lessons back to the system.

• The instigation of *incentives* and *rewards* for innovative individuals and teams.

• Plentiful *space* for creative thinking and reflective practice, e.g., away-days, brainstorming sessions, peer assists, after-action reviews and retrospects, problem-solving groups, discussion groups and forums.

Finally I would like to conclude with three specific principles:

1. Make People Enthusiastic

What's the idea? What makes this such a great idea? What are the benefits of this idea?

What is the value in this idea?

What is a concrete version of this idea?

(How can we execute this idea today or tomorrow?)

2. Let People Participate

Can we increase the value of this idea?

Can we take away the downsides of this idea?

For who is this idea intended? (Why would they want this idea?)

What can we add to make it even better?

3. Make People Accountable

What do we need to realise this idea? (time, money, assets? etc.)

What are the steps that we need to take to execute this idea?

Can we create a roadmap?

Can we put all these steps into one timeframe?

How can we test if this idea would work?

Who is going to do what?

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