

Entrepreneur

Unpacking improv

In a recent study, Mary Crossan and Dusya Vera found that improvisation training improves performance

In the past people have thought of entrepreneurship as either a single minded goal pursuit or a serendipitous adventure. Through their study of improvisation, Ivey professor Mary Crossan and former Ivey PhD student Dusya Vera (now at University of Houston), are coming up with ways to tap into our intuitive and creative sides and showing how entrepreneurship is likely both.

Crossan began her investigation of improvisation by comparing traditional theatre, where plays have a pre-determined life, with improvisational theatre, which undergoes constant renewal. From her research, she decided that improvisation exercises developed for theatre training could be used to bring out the entrepreneurial skills of managers. Her collaboration with Second City resulted in a number of improvisation workshops as well as a management video called *Improvise to Innovate*.

The growing interest in improvisation, from both the business and not-for-profit sectors, comes as no surprise to Crossan,

Ivey's Donald K. Jackson Professor in Entrepreneurship. "People are beginning to recognize the complexity and uncertainty of the world, and their inability to manage with traditional tools," she says. "They're beginning to realize that there are tools, like improvisation, that will help them do better."

It's a mistake, though, to think that improvisation in itself is always a positive thing, she cautions. "The key components of improvisation are spontaneity and creativity," she says, "but that doesn't mean they will be done well." From her research, she and Vera theorized that certain conditions or "moderators" needed to be present for effective improvisation.

Recently, they applied their theories in a large municipal organization to measure the relationship between improvisation training and performance. Results showed that training improved the incidence and, most importantly, the quality of improvisational processes. Although their study was applied to a large organization, the results contain important lessons for all entrepreneurial ventures.

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Institute Buzz

By Dr. Eric Morse, Executive Director, Institute for Entrepreneurship



Welcome to a new academic year! The summer of 2004 was a busy one for entrepreneurship at Ivey. This past May saw the launch of Quantum Shift, a rigorous four day executive development program geared towards

Canada's most promising entrepreneurs. In partnership with KPMG and sponsored by the Globe and Mail, the program brought forty CEOs and business owners together and challenged them to improve their leadership style, inspire their business partners and maximize their growth opportunities. The first annual Quantum Shift was a huge success and preparation for the next program is underway. For more information, see www.quantumshift.ca

During the summer months, students enrolled in Ivey's Entrepreneurship Certificate Program were out in the field, working as interns in entrepreneurial ventures. These internships and the associated mentoring and coaching programs are a vital part of the Certificate program and I'd like to extend my thanks to all those who gave their time and expertise to work with our students. See the "Student Watch" column for one student's reflections on the internship experience.

This fall, in conjunction with the Business Families Foundation, we are offering a dynamic and interactive four day seminar for faculty, consultants and professionals involved in the field of Business Families. Participants will learn how the governance process is essential for helping business families address and resolve their particular issues. For more information, and to register for the event, see our website, www.ivey.uwo.ca/entrepreneurship

I'm delighted to welcome three alumni and entrepreneurs to the Ivey Entrepreneurship Advisory Council:

- Pierre Rivard (MBA 1983), President and CEO, Hydrogenics
- Russell Payson MBA (1970), Chairman and CEO, Skyservice Airlines
- John Besterd (HBA (1978) President and CEO, MC Group

Our lead article this month is by Mary Crossan. Mary discusses the benefits of improvisation for entrepreneurial companies. In the related piece, Chris Piper talks about the value of flexibility in organizations.

I hope you enjoy these articles and this issue of Ivey Entrepreneur. See our next issue for an update on alumni news. If you would like more information on our initiatives and future events, or a copy of our 2003 – 2004 annual report, please contact Carol Hooper at chooper@ivey.uwo.ca ■

For the study, improv training was carried out with 175 city employees divided up into 25 work teams. An additional 25 work teams were used as a control group. Selection to the teams undergoing training was not linked to performance. All targeted teams worked in an environment where improvisation was likely to occur – in jobs with direct contact with external customers or that dealt with unexpected or novel events, resource scarcity, and urgency.

Turbulence of environment

In the study, Crossan and Vera found that improvisation affects performance positively under conditions of high environmental turbulence. Surprisingly, top management in the city perceived very high levels of turbulence and change in the industry, yet many middle and low-level managers did not perceive such turbulence. Those who did not perceive turbulence did not see the advantages of improvisation over planning. “Improvisation tends to yield better results in situations that are uncertain,” says Crossan. “Where you can plan your way into the future you may not need an improvised process to get there.”

The study pointed up the need for employees to have tools to assess the environment, such as industry reports, briefings about current activities, and internal newsletters. Even teams that deal only with internal customers must be aware of critical external shareholders. If they do not understand the firm’s external environment, they can’t weigh the advantages of improvisation in a given moment.

Culture

For improvisation to have a positive effect on performance, managers also need to establish a work environment with some tolerance for error. In their study, Crossan and Vera observed that city managers at first were uncomfortable with this idea. “The lesson of improvisation is not that errors don’t matter,” says Crossan. “The challenge is to assess when and where error can be tolerated.”

For example, there is no tolerance for errors when a jet takes off, but there is ample tolerance for error in flight simulators. No passenger would feel comfortable with the idea of a pilot experimenting when flying a plane, but when an emergency arises, it’s comforting to know that the pilot can respond creatively.

Improvisation can only take place in an environment that allows groups to

experiment within some constraints, take initiative, feel empowered, and take controlled risks. “Improvisation involves a psychological risk, so it can only take place in an environment that is receptive to risk,” she says. “It’s hard to overcome the planning orientation or the rationality and risk aversion that can come from or be exerted by some people, particularly your boss.”

Information flow

To capitalize on unexpected opportunities or resolve unexpected problems, employees need real-time information. Hiding information, a tendency of some managers, hurts group responsiveness. Some entrepreneurial firms, in an effort to establish fluid communication flows, have implemented sophisticated systems that use intranets and email technology to keep everyone updated. The goal is not for everybody to know everything that’s going on in the company, but that the right information is available to the right people at the right time. Because this balance is hard to achieve, managers should encourage employees to think about the kind of information they need to do their jobs more creatively.

Memory and expertise

Earlier improvisation research found that too much institutional memory – stored

information from an organization’s history - could actually impede improvisation. “When there are a lot of rules and procedures that seem to cover every imaginable situation, people tend to say, ‘I don’t see the need here. I can do things the way they’ve always been done.’ But once improvisation begins to take place, memory can improve the process.

In the city study, Crossan and Vera found that stored knowledge about formal guidelines, by-laws, and policies did sometimes play a “constraining” role in improvisation. In contrast, informal procedural memory resulted in more effective improvisation. For example, memory about past situations where employees found solutions to unexpected customer requests was helpful when dealing with new customer requests. This evidence stresses the need for managers to establish ways to communicate and share stories and anecdotes about the firm and the group’s past. In the case of new employees it’s important not only to familiarize them with the rules and policies that guide their work, but to also let them know how the group has dealt with uncertainty in the past.

Expertise, too, has a positive effect on the quality of improvisation. The research found that teams with greater skill sets

A matter of time

When entrepreneurs speak about their success, they often look back on a breakthrough or revelation that takes place within an altered sense of time. It’s something we’ve all experienced – a moment that takes forever, or hours that fly by in an instant.

Aside from these rare moments, “clock” time dominates our lives and our thinking. In the world of business, time is viewed as a scarce resource, an adversary to compete against. Managers use terms like “just-in-time,” “time-to-market,” and “reaction time.”

How we relate to time is a subject that has fascinated philosophers and physicists for centuries. Einstein, with his theory of relativity, proved that time is dependent upon motion. For example, if twins are separated at birth, one remaining on earth while the other moves in a rocket ship at the speed of light, the twin on earth ages almost twice as quickly as the other.

Mary Crossan believes that unlocking the secrets of time may one day have profound effects on business management. She first became fascinated with perceptions of time when she began studying improvisation in

theatre and jazz. Improv is very much rooted in the present, and unfolds in the “now.” “Business people are very linear in terms of their past, present, and future orientation,” she says.

There are a number of different ways to view time. In a recent *Academy of Management Review* article, she and Dusa Vera and two colleagues from Portugal looked at “clock time” versus “event” time, and “linear” time versus “cyclical” time. They propose that improvisation offers a means for management theory and practice to overcome these apparent time dichotomies. Unlike the clock time perspective, event time is perceived through the occurrence of meaningful events. “Managing on event time means a focus on flexibility,” says Crossan, “because of the intrinsic unpredictability of events.” With a “cyclical” view of time, on the other hand, the past is seen as occurring again and again. Here time is perceived to revolve around a set of stages, such as seasons of the year, political elections, or business cycles.

Crossan believes that how we respond to time constrains our ability to think entrepreneurially. “The study of improvisation helps us break away from individual time orientations,” she says. “It helps us to tap into creative insights that exist in the present.”

have more possibilities for developing new combinations of ideas.

Minimal constraints

The evidence from the city study shows that improvisation is more effective when team members understand the goals and expectations of the project and the organization, and the minimal constraints within which they can experiment. Within these parameters, people in the organization are free to operate, experiment, and innovate. Guided by minimum constraints, employees are able to create order from the ambiguity and uncertainty of their situation.

Teamwork

Improvisation works well at the individual level, but it can be particularly effective in groups. Improvisation works better in groups where there is a high level of trust and support.

Improvisation training helps develop the capacity for more effective teamwork. An example is *yes-anding*, an innovation exercise that encourages managers to build on, rather than block, each other's ideas.

Yes-anding is a technique that works particularly well in entrepreneurial situations, says Crossan. "When you're in a complex environment with a lot of uncertainty, it's like wading into the fog. No-one really knows where you need to go. *Yes-anding* is about the trust you need to build an idea together, to get you through the fog so you can start to see the other side."

The city study showed that it takes practice to create effective improvisational dynamics in teams, because trust grows out of the situation of working together. Effective group improvisation should be linked to supervision, reward, and promotion systems that value team efforts as well as individual efforts.

Building on traditional tools

The research of Crossan and Vera applies to entrepreneurship at the individual level, and in a broader context as a philosophy of management. But improvisation can only flourish in an environment that's mutually supportive, tolerant of error, and open to experiment and the free flow of information.

The skills learned through improvisation – creativity and innovation – are important in both small firms and large, and build on traditional tools and approaches to management. Says Crossan: "In a sense improvisation represents the meeting point of planning and opportunity, comprising a blend of strategy formulation and implementation." ■

Keeping flexible

Chris Piper's research shows that flexibility in operations has a big impact on performance



One month consumers are buying notebook computers, the next they're buying the latest hand-held device. One day they prefer SUVs, the next they prefer fuel efficient sedans. With consumers demanding more and more, and technology advancing at light speed, companies are hard pressed to keep up.

As a result, production flexibility is becoming increasingly important to managers, says operations expert Chris Piper, and can have a huge effect on performance. Piper, and recent PhD Graduate Stephane Vachon, focus their research on a number of aspects of flexibility, a broadly defined concept that includes the ability of companies to meet peak demands, switch quickly from one product to another, and handle internal problems like absenteeism and equipment breakdown.

Companies that make snow boards or patio furniture see their sales peak during a particular part of the year. Seasonal demand can be a challenge to managers, who must weigh the costs of carrying extra inventory against those of overtime. It's generally accepted that overtime and extra shifts detract from productivity, but they found in one of their studies that the costs were actually higher than had previously been thought under existing operations models. "Our research suggests that companies should attempt to smooth out their production," he says. "Even with a highly seasonal product, they can benefit by making the product over a longer period and reducing the peak demands on their labour capacity."

In another study, published in the *Journal of Operations Management*, Piper, and Professor Rajeev Sawhney (University of Western Illinois), looked at the way that people in operations and marketing communicate with each other.

The research focused on the circuit board industry, an area of rapid change and high technology demands. In this study, Piper examined the speed and quality of communications and related them to measures like product defects, costs, late deliveries, and shorter lead times. "We found that good communications made huge differences to performance," he says. "Although intuitively obvious, the relationship had never been demonstrated before."

The lessons for managers are clear. "The first thing is to make sure that there is a very open channel between the people in operations who are responsible for scheduling production, and the people in marketing and sales who are responsible for making promises for delivery and special features," says Piper. "And operations must provide information to sales on the production capacity that's currently available."

Piper's third stream of research, with Professor Narendra Sumukadas (University of Hartford), looks at the flexibility of labour, a sensitive issue with unions. Many companies do not allow equipment operators to do any maintenance, leaving this function solely to maintenance technicians. Yet many maintenance tasks, like checking fluid levels and routine set up changes, are quite simple. This study found that training operators to do some of their own maintenance dramatically improved performance. In fact, they found that this had a greater impact on performance than other forms of employee involvement, like stock option plans and programs to keep them well informed on company issues.

Piper and Sumukadas also found another performance benefit: maintenance technicians were freed up to perform more complex tasks that added more to their job satisfaction and to the life and capacity of the equipment. "Giving operators more flexibility with maintenance really works," says Piper. "The trick for the company is to gain trust that this won't result in job loss."

StudentWatch

One component of the Entrepreneurship Certificate Program at Ivey is the opportunity for students to work as a summer intern in an entrepreneurial venture.

MBA student Tineke Keesmaat spent this past summer at Starcan, working under the direction of Grant Burton. Tineke comments: "At age 11, I discovered that I could make over \$500 on New Year's Eve if I babysat for multiple families at my parents' home. At age 16, I discovered that I could pay for an undergrad education by running a backyard swimming lesson program. While some of this entrepreneurial spirit has been slightly hidden over the past few years, this summer I had the opportunity to rediscover it under the generous guidance and support of Grant Burton, a Toronto-based entrepreneur and Ivey alumni (MBA '68).

Working with the Ivey Institute for Entrepreneurship, Mr. Burton provided three students the opportunity to develop their own business plans this summer. It was an amazing chance to apply the lessons from my MBA classes into a practical real-life experience.

From researching the overall industry, to designing the product concept, to building a comprehensive financial model, I found myself looking at all aspects of my business idea. My credibility as an Ivey MBA student increased my access to individuals currently operating in the industry and many of them shared their stories, their challenges, and their successes. It was encouraging to see how easily I could build a network which gave

me increased confidence for my future endeavours. Furthermore, by having to present my plan to an advisory board, I learned the importance of having clear messages and of knowing my numbers.

Returning to school, I am constantly surprised by the lessons that I learned simply watching Grant carry on his daily business, and I am amazed how often this learning avails itself in our daily case discussions. I am positive that these lessons will be influential both in MBA2 and in life in general. The question I get most when describing this summer experience is: "So, are you going to launch your business next year?" While I am still struggling with the definitive answer to this question, I am confident that if not tomorrow, in my near future, I will be entering back into this world.

At age 28, I discovered that there is no such thing as a small idea and that with the right drive and initiative everything is possible."

Entrepreneur students at Ivey had a flying start on the new school year with the second Eco-Shred Innovation Challenge. In teams of six or seven, students each contribute \$1.00 cash and are challenged to launch an entrepreneurial venture with the goal of maximizing their profits in a two week period. Teams then present their projects to their classmates, including an analysis of what they learned from their experience in launching an entrepreneurial venture.

Some of the ventures launched by these innovative students included a speed reading seminar, a new laptop screen saver, a junk removal company, a computer accessories discount company, a cookbook geared towards Ivey students, CDs offering career resources and Ivey-specific information, customized picture frames and t-shirts, a variety of events and trips and even the sale of pet rocks!

Congratulations to everyone! ■



THE MBA WINNERS OF THE 2004 ECO-SHRED CHALLENGE: (from left to right) Jeremy Lucas, Matt Hall, Paul Bennett, Jatin Salhotra, Saniff Virani and Michael Nesrallah. Absent from photo: Abhishek Agarwal. This enterprising team launched GT Event Planners and organized a hugely successful student event, including a silent auction. Clearly, a good time was had by all, with the profits from the event totaling \$2,995.00.



THE HBA WINNING TEAM: (from left to right) Joelle Faulker, Kate Robb, Dan Abichandani, Brent Verria and Daniel Zatzman. This team took advantage of the human resources available to them to launch another very popular event, "One Stop Hip Hop", offering hip hop classes on campus and raising \$1,120.00 in the process.

This quarterly newsletter is published for individuals in business and academic life who have a particular interest in entrepreneurship. If you have any comments or questions please contact us. If you or your organization would like to obtain a copy of this newsletter, free-of-charge, please contact: **The Institute for Entrepreneurship**

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