Learning by doing

—— The Way of Baosteel Enterprise Professional Training

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ABSTRACT

This paper aims to present how Baosteel Group, the leading steelmaker in China, improves the competence of its employees to fulfill the company business strategy through the training simulation in the areas of business and engineering.

The participants are always encouraged to involve in the interactive activities, and the trainers act as consultants or coaches who support participants to work on the real cases. The programs not only focus on the knowledge transfer but also on the mindset change.

These training simulations are very popular because of their good reputations since 2011 and more than one hundred participants have completed the training in total, more on the waiting list. It is believed that the simulation makes difference on the participants’ performance before and after the session. The company will be continued to have more people take part in the simulations in near future.

Keywords:

Simulation, Interaction, Reflection, Improvement.

INTRODUCTION

Nowadays many companies are facing difficulties to motivate the employees and improve their core competences successfully, especially those big ones. Although it is not easy to improve the knowledge level and skill of the employees in a short time, the adult professional training has been valued by many entrepreneurs across the world because the competition of an enterprise is the competition of talents, and the success of the business strategy of an enterprise depends on the talents. Keeping the employees with high quality to offer good service for the customers has great impact on the survival and development of an enterprise. As the Baosteel Group training center, Baosteel Talent Development Institute encourages its trainers to try different ways to upgrade the knowledge levels and skills of the employees, especially the way of learning by doing.
1. The enterprise strategy decides what the employees should learn

The iron and steel enterprises in China are facing a very difficult situation for the time being. The supply of steel products exceeds market demand, the pressure of environment is forcing the enterprise to shrink its scale and turn to the other business. Baosteel Group, a leading steel manufacture in China, chooses to survive by globalization and transformation. It is trying to turn from a role of steel maker to a role of service provider, which needs to enforce its marketing and sales, financial investment, resource development, construction projects as a whole.

In the process of globalization and transformation, more technical employees in Baosteel Group are involved in sales and other service field. In order to help these technical background professional to adapt to the company new business model and market situation, promote them form technical designers to the construction project managers, extend their responsibility from narrow and special fields to a wider management fields, it is necessary for the enterprise to provide these employees right training with the right methodology.

These employees have good technical education background and years of production experience, but they are short of updated business knowledge and experience with box thinking. Therefore, the challenges for the company are to reconstruct their knowledge structure, upgrade their skills, obtain more experiences and change their mindset in a short time.

2. Adult learning behavior decides how the employees should learn.

It is not easy to train the adults even both the enterprise and the employees realize the importance of learning in the new situation. Since the training participants are adult, their learning behavior decides how they can learn efficiently.

Many famous educators have done research in the area of adult learning. Malcolm S. Knowles made andragogy well-known as a kind of technology based on the assumption including problem solving orientation and internal factor of learning motivation. His assumption helps the trainers in Baosteel Group to compare the different targets and different characteristics of the students at schools and the adult trainees at work.

First, their training targets are quite different. The students at school have neither clear nor concrete career goals, so they need comprehensive knowledge to prepare for their future. It is necessary for them to master a complete theory system. While in the enterprises, the employees have definite tasks to finish and practical problems to solve. They hope to learn the practical skills which could help them directly at work. In the traditional classes, the trainers intend to teach too much, talk too much and ignore the interactive communication with the participants. So it may be a waste of time and money for both enterprise and the employees in that kind of learning environment. What the employers expect is more efficient training which makes the participants come up with higher problem solving ability, more practical skills, updated ideas and refreshed mindset. With the simulation in training, the participants could correct as much mistakes as possible and the enterprise could avoid the loss in the real business.
Second, the trainers could not ignore the learning behavior of adults, which is crucial to the final training achievement. The employees have many years of experience and basic knowledge related to their work. They would like to control the learning by themselves and be active in the process of training. Just like what the constructivist insist, “The learner are self-directed, creative, innovative” According to Dewey, a famous constructivist, “the teacher should not stand at the front of the room doling out bits of information to be absorbed by passive students.” If the trainers have too much to teach, then the trainers have pressure to finish their instruction in the limited training time, and they intend to cram knowledge as fast as they can while ignoring whether the participants understand the knowledge in textbooks. In this way, the trainers pass the knowledge like robots and the participants accept the knowledge like memorizing machines. Obviously, the traditional training is still good but not for every single situation, especially for those who have many years work experience. That’s the reason why the trainers in Baosteel Talent Development Institute try hard to search the proper approaches.

3. Learning by doing is the way Baosteel chooses

The trainers in Baosteel Group are not the first ones to be influenced by constructive education theories. Many counterparts have experiences of training pilots or nurses by simulating the real case which is a kind of learning by doing training style. In the past three years, Baosteel Group have organized some business management and project management training programs in the way of learning by doing, these programs have been proved to be very attractive and effective as well. The participants could understand the knowledge easier in class and they could use the skills quicker outside the classroom than they did after the traditional training.

3.1 The training focuses on problem solving.

In the business management training program, the participants are given the task like “How should Baosteel Group explore the oversea market?” The trainer starts by raising a series questions to stimulate the participants to think over and to discuss. For example, “Who is your target customer segmentation?” “Whom are you competing with all the time?” “What advantages do you have?” “How can you improve the weaknesses and grasp the opportunities?” “What strategy should you make?” etc. By answering these questions one by one, the participants have the chance to think logically and learn the way to identify customers’ real needs and buying center as well. They are guided to stand in a higher level to overview the market, be able to know where to collect the market information related and how to make a proper strategy to create a competitive advantage. The participants work on their real products with different groups in the related market by following the market operation process as the following chart.

1 From “http://en.wikipedia.org/wiki/Constructivism”
The participants are assigned to be the business managers in the case studies; they become more active and more absorbed in the research and training activities. After discussion, each group would make a presentation to share their ideas. The participants come up together with their market analysis and business strategies which are set up upon their experiences accumulated in the daily work and their knowledge obtained for years. These knowledge and experience are helpful though they may be neither complete nor logical. The trainer needs to analyze with the participants which factor they have ignored, what the problem they are facing, and how they could improve. The process of learning is just like peeling an onion; the participants approach the core of the problem step by step during the exploration.

3.2 The trainer plays the role as a facilitator and a coach.

The role of trainer is a facilitator. It is the task of a trainer to stimulate the participants to explore the knowledge. The participants are encouraged to ask questions, discuss the topic, present solutions, argue ideas and finish the tasks instead of sitting quietly and accepting the knowledge positively. In the process to solve the question, the rules and knowledge become their “friends” that are absorbed by the participants easily. After the participants realize what the problems are and how the solutions come from, they could intend to change.

Another role of the trainer is a coach, who provides some tools to the participants to analysis the market, to find the potential clients and to choose the ways to sale their products. This process shows a big picture and is very important for the participants to find their lack of skills and to overcome the obstacles of the old mindset. It is the time for the participants to get rid of their prejudice and change their mindset and all they need is to practice which helps them use the skills freely. The trainer makes a lot of effort to design more similar activities to reinforce the participants’ impressions and make the participants more skillful.

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3 Basic Market Analysis, 2011, lecture given by the trainer of Baosteel Group
3.3 Scenarios and activities are the carrier of training.

In the project management training program, the participants learn how to manage a project by simulating a real Engineering Procurement Construction (EPC) project which will be finished in limited time with limited resources. This simulated project is just like a thread which strings both hard skills and the soft skills of the participants. A number of activities are involved in the training session, such as bidding, planning, designing, purchasing, constructing, installing, testing and closing, which make up the complete process of a project.

During the project management process, the participants act as project manager and the team members who have to deal with some unexpected risks, schedule changing, quality controls and limited resources as well. They also have to cooperate with the other partners, negotiated with the clients and the contractors, settle down the conflicts. Each activity offers the participants a chance to practice and improve. And then their behaviors and the ways to think and to solve the problem might be changed gradually, which will be different from what they did before the training. These activities serve as a mirror for them to look at what they used to act and compare with what the correct ones should be. Once they realize the shortage in the experience and skills, they have motivation to learn more and to perform better.

Some soft skills are also involved in the practice during the training session. As this simulated project is a project in one of the countries in Africa. The project manager should take the political and culture factors into consideration as well as the financial ones. Sometimes, the key element of special religion and custom might be ignored, which will have negative impact on the project process. Sometimes the project will suffer heavy financial lose because of the employees’ poor negotiation skills. The participants have lesson learnt from this simulation to have mindset on the case and to minimize mistakes and financial loss in their daily practice. The simulation cultivates their sense of responsibility, skill of human resources management and importance of team work, which might be neglected by them easily in the routine management.

3.4 The training influences the participants in the following daily practice.

After the participants complete the project and present it in the training, they have a sense of achievements and pride. All the headaches might be gone, and only the sense of pride and happiness stays with them. The participants treasure these wonderful memories as well as the experiences they accumulated in the class. Usually the knowledge and skills they accumulate through the activities are unforgettable. By fulfilling the project target, they upgrade not only the hard skill but also soft skills on project management in general.

Learning by doing triggers the curiosity of the participants to study further and explore more areas, stimulates them to figure out some new ideas. After the Simulation of Project Management training, some participants become more interested in project management and are eager to read more materials related to it. Some realize that they lack the negotiation skills in their daily jobs and would like to take part in more training programs, and some are aware that the company needs to make new management regulations to control the quality well in the future.

The participants not only enhance their abilities in the training but also share what they
have learned with their partners and recommend the training program to their managers and other colleagues. That’s why the method of learning by doing training style wins the reputation in the enterprise and the support from the company managers and attracts more employees to join in.

Since 2011, more and more employees have taken part in this learning by doing training program, and the training includes business management, project management training and international business law training. The number of participants increases year and year as shown in the following chart.

Figure 2  2011---2014 Number of participants in learning by doing training programs in Baosteel Group

CONCLUSIONS

Time witnessed the success in learning by doing practices in Baosteel Group; this success stimulates more simulation curricular to be designed in iron making, steel processing, technical upgrading and business management, etc. It is for sure that there will be more efficient and interesting methods waiting for the trainers to explore with the help of the modern technology such as computer science and internet web sites in this digital era. As long as it expects the employees to grow up, a company will never stop its exploration in the field in future.

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