

DESIGN AND APPLICATION OF LEARNER-CENTERED LEARNING TRANSFER



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ABSTRACT

Get learning to trigger change of behaviors and improvement of performances, and thus to lead to better business outcomes, is the fundamental value of training and the ultimate need of future corporate learners. Therefore, it is necessary for trainers to carry out detailed designs in all processes of training, in order to drive effective transfers from learning to business practices. Meanwhile, since learners are the subject of learning transfer, their problems, difficulties and characteristics during every process of training are worth studying on. This paper is aiming to research on the design and application of learner-centered learning transfer. It takes the learners' perspective, divides the overall training processes into five stages—pre-training, early training, mid training, late training, post-training, and analyzes the factors that are influencing learning transfer in each of these stages. The paper proposes that there are 18 factors influencing learners' transfer. The paper explores these factors, and formulates a "5-Stage/13-Step" training design model. This model includes: pre-training—to achieve common understanding; early training—to construct learning vision and objectives, and to facilitate individual learning plan; mid training—to internalize leaning content, to externalize learning outcomes, and to reinforce learning reflection; late training—to examine learning results, to empower learning transfer, and to facilitate action plan; post-training—to gain support for transfer, to follow and drive application, to evaluate transfer results, and to review and certify. After applying the model in designing SINOPEC training programs such as Petrochemical Engineering Overseas Project Managers Training Program, the paper analyzes its effects, and seeks for future improvement.

Keywords

Learner-Centered, Learning Transfer, Training Design, Training Application

INTRODUCTION

Get learning to trigger change of behaviors and improvement of performances, and thus to lead to better business outcomes, is the fundamental value of training and the ultimate need of future corporate learners. Therefore, it is necessary for trainers to carry out detailed designs in all processes of training, in order to drive effective transfers from learning to business practices. Meanwhile, since learners are the subject of learning transfer, their problems, difficulties and characteristics during the whole process of training are worth studying on. This

paper takes a “learner-centered” perspective, analyzes the factors that are influencing learning transfer, proposes a design model to deal with the factors, and discusses its application and effects in training practice.

1 KEY INFLUENTIAL FACTORS OF LEARNING TRANSFER: A LEARNER-CENTERED PERSPECTIVE

Throughout the overall learning process, whether the learners are willing to learn and transfer and whether they are able to learn and transfer, are affected by many things. We, in this study, divide the whole learning process into 5 stages—pre-training, early training, mid training, late training and post-training. Then based on a large number of training practices, we have analyzed the key factors that influence learners’ learning transfer at each stage (see Figure 1).

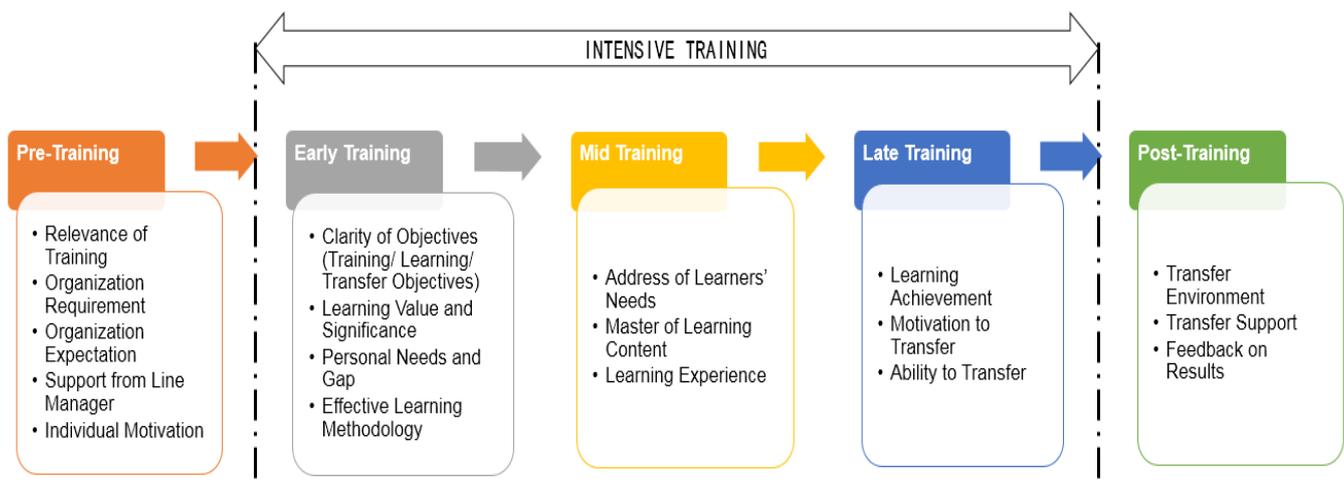


Figure 1. Key Factors Influencing Learners’ Learning Transfer at the 5 Stages

At the pre-training stage, participants are still at work; they probably have just received training notices and are preparing to attend it. At this time, the key influential factors include: Is this training relevant to my job, my professional area or my career development? Since the organization selected me to attend the training, is there any requirement for me? What’s my company’s expectation for me—what benefit or change do they want me to bring after the training? What’s my line manager’s attitude about me attending the training—does he/she support me, what kind of support do I get? Do I want to go and learn, why, would that affect my work or family?

Then, at the early training stage, participants have just arrived at the training venue, and are about to start taking the courses. At this time, the key influential factors include: What do I know about the training arrangement and the training objectives? What learning objectives should I set for myself? What changes do I expect to make after the training? Why should I make an effort to learn—what’s in it for me? What do I want to learn—in terms of knowledge, skills or ability, where am I at now? What should I improve the most? How can I learn effectively?

Next, at the mid training stage, participants learn new things. The key influential factors here include: Am I learning what I really need to learn? Can I master what I've learned? How can I benefit from it?

After that, at the late training stage, the intensive training period is getting to the end and the participants are about to go back to work. Now the key influential factors include: What have I learned and how do I evaluate it? Do I want to apply and transfer it after I go back to work? Why should I apply and transfer? How should I apply and transfer?

Finally, at the post-training stage, participants go back to work and are supposed to apply what they've learned into real practice. At this stage, the key influential factors include: Do I have the environment and the right tasks to apply and transfer learning at work? Does my company and my leader support me? Do I get help when I meet problems and difficulties in the process to apply and transfer? Will there be evaluation or feedback on the results?

2 DESIGN MODEL FOR LEARNER-CENTERED LEARNING TRANSFER

Based on the above factors that influence learners' transfer throughout the learning process, in order to make training designs accordingly, we propose a "5-Stage/13-Step" Design Model to promote learner-centered learning transfer (as is shown in Figure 2).

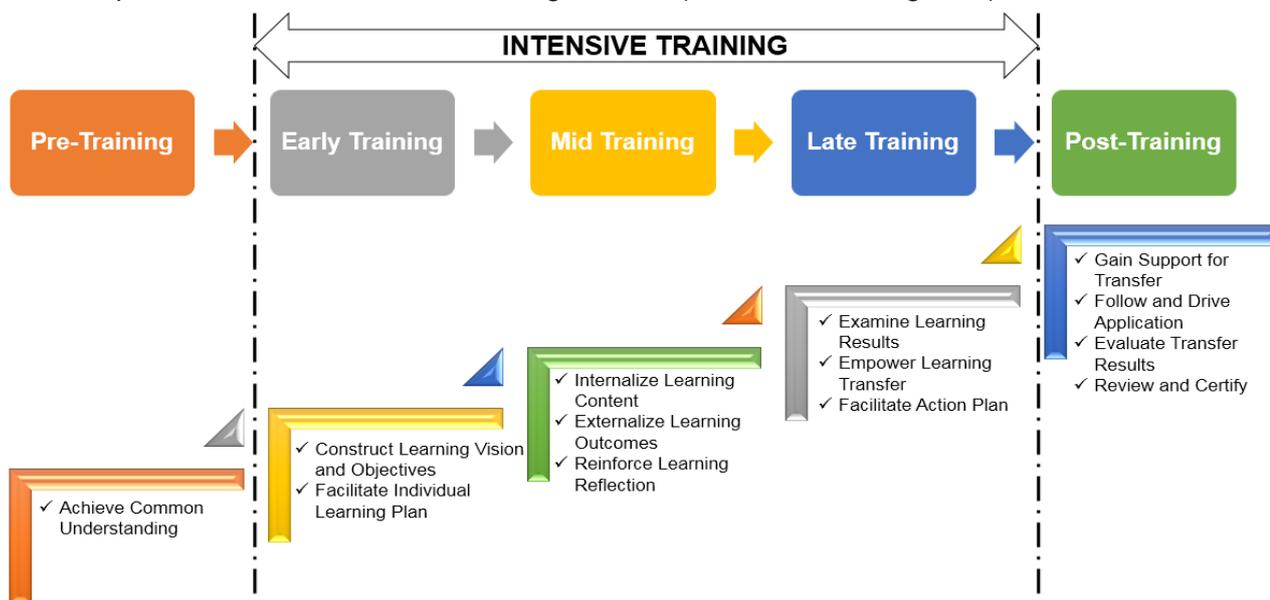


Figure 2. "5-Stage/13-Step" Design Model for Learner-Centered Learning Transfer

In this model, before training, communication and conversations need to be facilitated among all stakeholders to achieve common understanding on training, make connections between work and learning, and get all parties ready for learning transfer. At the beginning of training, trainers should design sessions to introduce training arrangements, to help construct individual learning visions and objectives, to specify individual needs and to facilitate personal learning plan. During the main part of training, focus should be given to internalize learning content, to externalize learning outcomes and to reinforce learning reflection, so as to create successful learning experience and improve learning effect. At the end of training, learning results should be examined to create a sense of achievement for learners, they should be empowered and motivated for their learning transfer afterwards, and action plans should be facilitated. Finally,

after the training, trainers need to help learners to gain support from their company and line managers, provide aid and drive application in the process of transfer, evaluate the results of transfer at the finishing line, and review and certify those who pass.

3 APPLICATION OF THE DESIGN MODEL AND ITS EFFECTS

In this part, we will use the practice of SEG (SINOPEC Engineering Group) Overseas Project Managers Training Program as an example, to illustrate the detailed design and application of this “5-Stage/13-Step” Model and analyze its effects and potential problems.

For SEG Overseas Project Managers Training Program, there are around 20 participants working for SEG headquarters and its 8 subsidiaries. The 2-month training program is sponsored by SINOPEC headquarters, aiming to improve comprehensive abilities for overseas project managers in SEG, including business communication ability, cross-cultural communication and management ability, international project management ability, and multinational operation and management ability.

3.1 Design Application and Effects at the Pre-Training Stage

3.1.1 Design Application

(1) Achieve Common Understanding: Spread Concepts via Conversations

Early since the time for developing the training proposal, the program team took all measures such as conducting interviews, writing emails and making phone calls, to spread concepts to the sponsor, the employers and the potential trainees, to discuss the importance and value of learning transfer and then to achieve common understanding among different parties. Meanwhile, through rounds of conversations, the program team also strove to ensure that the content of training was practical and targeted to the needs of organization and potential trainees, which laid a foundation for their later learning and transfer.

(2) Achieve Common Understanding: Communication with Line Manager as an Assignment

In this program, instead of registering on their own, participants were recommended by their companies. However, they were not well aware of the reason why their companies sent them to be trained, their expectations or their managers’ attitude. Therefore, in order to drive clarification of these problems and boost the participants’ willingness to learn. A pre-training assignment was designed to have the trainees communicate with their line managers on three aspects—company’s expectation, learning requirement and manager’s support. The participants were asked to fill in a form to minute their meeting with a given format (see Table 1).

SEG Overseas Project Managers Training Program
Minutes of Pre-Training Communication

Name:

Line Manager's Name:

Line Manager's Email:

1. What is your company and line manager's expectation for you to attend the training program? What benefit or change do they expect you to bring back to work after the training?
2. What requirement does your manager have for your learning?
3. To ensure the effect of learning, SINOPEC Management Institute will require participants to concentrated and devoted during training, and apply their learning to work after the training. Does your manager agree with us? What support is your manager willing to provide?

Signature of Line Manager:

Date:

Table 1. Pre-Training Assignment: Communication with Line Manager

3.1.2 Effects and Problems

By making the efforts above at this stage, the learners could better understand what were expected from them and required to them, and they became more willing and motivated to learn. The concept of "learning transfer" gained preliminary support from line managers and employers, which paved the way for transfer afterwards. But meanwhile, the effect of the "communication" assignment would be affected by subjective factors of the line managers. If a line manager is not supportive, the positive effect of this step can then hardly play its role.

3.2 Design Application and Effects at the Early Training Stage

3.2.1 Design Application

(1) Construct Learning Vision and Objectives

At the beginning of training, it's important for participants to have a clear picture about what "I" can benefit from the training, so as to form their own internal learning drives. For this purpose, we designed to construct learning vision and objectives from three ways: ① on the opening ceremony, have sponsor to make a speech on their expectation and requirement to participants explicitly; ② make a formal introduction on the overall training program arrangement; ③ hold a session to help participants construct individual learning visions—the session can be conducted around three key questions as follows, having participants to think independently and write down their answers on "post-it" notes.

Question 1. *What is your manager's expectation on your training?*

Question 2. *From the training, what objective(s) do you hope to achieve for yourself?*

Question 3. *If you are successful in achieving your objective(s), what will that mean to you? What will it be like?*

Asking Question 1 helped learners see their mission and direction on an organizational level. Asking Question 2 helped them think about the role learning could play on a personal level. Asking Question 3 connected learning to personal value, and could form a picture of vision in

their minds. The answers to the questions, when written down, would be immediately posted at designated areas on the wall, to create a sense of commitment to the visions and objectives.

(2) Facilitate Individual Learning Plan

After setting the goals, learners next would need to understand their present situation, their weaknesses, problems they face and the best way to learn and improve for themselves. In this program, we designed a one-on-one interview for every participant, to identify their personal needs and to facilitate a learning plan. The interviews were conducted around 5 key questions:

Question 1. *What objective(s) do you hope to achieve for yourself from this training?*

Question 2. *What difficulties and challenges are you facing now? What efforts have you made?*

Question 3. *What can you do/ what actions would you take during the training to help you achieve your objective(s)?*

Question 4. *How committed are you to carry out these actions in practice?*

Question 5. *What problems or barriers may you possibly have? How would you overcome them?*

Question 1 aimed to reinforce visions and objectives. Question 2 explored personal needs and gap. Question 3 helped to work out a detailed learning action plan. Question 4 and 5 enhanced commitment for action. After the interviews, participants were asked to submit a Personal Learning Plan according to a provided format (see Table 2).

Name:		Date:
Learning Objective(s) (SMART):		
NO.	Actions to be Taken	Deadlines
1		
2		
3		
.....		

Table 2. Personal Learning Plan

3.2.2 Effects and Problems

By making the above efforts at this stage, the learners became clearer about their own learning objectives and visions, started to look forward to the training with eagerness, and had a better perception of themselves and a personal plan to organize their learning. However, the method of constructing visions and making plans, could also be affected and restricted by the depth of different learners' self-perception. Meanwhile, whether the learning plan can be carried out effectively needs supervision and motivation.

3.3 Design Application and Effects at the Mid Training Stage

3.3.1 Design Application

Based on the 4 major abilities of overseas project managers, the training content of this program was divided into 4 learning modules, i.e. Business Communication Module, Cross-Cultural Communication and Management Module, International Project Management Module and Multinational Operation and Management Module. Each module was designed as a Learning Loop (see Figure 3), consisting of 3 steps—the internalization of learning content, the externalization of learning outcomes and the reinforcement of learning reflection.



Figure 3. The Learning Loop

(1) Internalize Learning Content

In learning, the first and foremost is to deal with the question if learners can learn what they want to learn and master it, i.e. whether the learning can be internalized by the learners. In this program, we separated the process of internalization into 3 steps (see Table 3). In each module, we attempted to: ①define and specify learners' real life problems at work; ②deal with these problems and needs in the training courses; ③ create pleasant learning experience to improve learning efficiency.

Module		INTERNALIZATION		
		Specify Needs	Deal with Needs	Create Good Experience
Module 1	Business Communication	Situational Assessment	Curriculum Design Resources Integration Needs Communication	Training Delivery Methods Stress Management Psychological Adjustment
Module 2	Cross-cultural Communication and Management	Participatory Decision-making		
Module 3&4	International Project Management Multinational Operation and Management	Participatory Decision-making		

Table 3. Internalization of Learning Content for SEG Overseas Project Managers Training Program

The methods we use for specifying detailed needs and gaps of learners may vary for different learning content. In this program, at the beginning of each module, we used situational assessment and participatory decision-making respectively, to spot the weaknesses in learner's communication ability, and to explore and sort out management problems in learner's work practice, so that targeted learning would take place accordingly. After the needs being specified, through curriculum design, resources integration and standardized communication of learners' specific needs to lecturers and facilitators, we were then able to deal with their needs in training delivery. Meanwhile, by using effective learner-centered training methods (i.e. case study, situational simulation, experiential learning and etc.), managing the learning stress and psychological adjustment for learners, we could manage to improve learning efficiency, and make what learners want to learn become what they have learned and mastered.

(2) Externalize Learning Outcomes

The second step at this stage of learning, is to practice and use what is learned, to encode the short term memory, and transform it into long term memory. In other words, learners should process the learning input and then provide output, to enhance the effect of learning. For different content, we could use different ways for this externalization. In this program, the externalization in each module was designed as in Table 4.

Module		Externalization
Module 1	Business Communication	<p>Situational Simulation Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Project introduction <input type="checkbox"/> Contract clarification negotiation <p>Participatory Decision-Making for Regional Strategies</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cross-cultural communication and management strategies for projects in South East Asia <input type="checkbox"/> Cross-cultural communication and management strategies for projects in Mid Asia <input type="checkbox"/> Cross-cultural communication and management strategies for projects in the Middle East
Module 2	Cross-cultural Communication and Management	<p>Inquiry Learning for Practical Researches</p> <ul style="list-style-type: none"> <input type="checkbox"/> Consortium Mode Applied on International Engineering Projects <input type="checkbox"/> Improving Overseas Project Construction Efficiency <input type="checkbox"/> International Talents Development
Module 3&4	International Project Management Multinational Operation and Management	

Table 4. Externalization of Learning Outcomes for SEG Overseas Project Managers Training Program

(3) Reinforce Learning Reflection

The third step at this stage of learning, is to review and reflect, and thus to prepare for post-training learning Transfer. Other than the review and reflection session at the end of each course, this program also designed review and reflection sessions for each module. Each session would include the following 3 questions:

Question 1. *What have you learned?*

Question 2. *What impressed you the most?*

Question 3. *How do you plan to apply and transfer it at work?*

3.3.2 Effects and Problems

Through internalization, the learning content became more targeted to learners' needs. Lecturers were able to make up the right "prescriptions", and the learners were able to take the right "prescriptions". Through externalization, the outcomes and value of learning became explicit, and the learning experience was more complete. Through the designs of internalization, externalization and reinforcement within each module, the learning of each of these 4 abilities turned into a closed loop. However, as a potential problem, at the mid training stage, course resource is a very important carrier for learning transfer, the limitation of which would affect and restrict the effectiveness of transfer.

3.4 Design Application and Effects at the Late Training Stage

3.4.1 Design Application

(1) Examine Learning Results

The late training stage is a critical moment, when the intensive training is coming to an end, and the learners are about to go back to work for application and transfer. In this program, to examine learning results, we designed a session to have learners present and defend their researches in team. In this session, leaders and experts from sponsors were invited to be the judges, and were also asked to give requirements to trainees on post-training application. By examining learning results, it ends the previous stages and starts a new one. It gives participants a sense of achievement on their learning, which could inspire them to be more motivated in post-training learning transfer.

(2) Empower Learning Transfer

To empower learning transfer, is to conduct a coaching session to help learners sort out reality, to explore the personal value of transfer, to motivate learners for transfer, and to gain their commitment. In this program, the coaching session were mainly conducted around the following five key questions:

Key Question 1. Reality: *What have you learned? What problems do you have that you'd like to solve after the training?*

Key Question 2. Goal: *By applying at work what you have learned, what objective(s) do you want to achieve?*

Key Question 3. Vision: *If your objective(s) have been achieved, what would that be like?*

Key Question 4. Value: *Why is it important to you?*

Key Question 5. Action: *What should I do?*

(3) Facilitate Action Plan

Based on the above coaching session, participants were also required to write down their own detailed personal action plan for post-training learning transfer. The action plan (see Table 5) at this stage included: ①gains from the 2-month training; ②action objective(s) for the 4-month learning transfer; ③detailed actions, deliverables and deadlines for achieving the objective(s).

3.4.2 Effects and Problems

By making the above efforts at this stage, the learners could see the results of their learning, their motivation to apply and transfer after training was raised, and the paths to transfer (i.e. objectives, actions, schedule, deliverables and etc.) were facilitated and sorted out. Meanwhile,

the problem would be that the session of examining learning results could be affected by “who are the judges”. The more relevant the judge is to the learner’s work environment, and the more devoted the judge is to the examining session, the better the effect would be.

3.5 Design Application and Effects at the Post-Training Stage

3.5.1 Design Application

(1) Gain Support for Transfer

Having the right environment and support at work plays a significant role in post-training learning transfer. From a learner’s perspective, whether he/ she can gain approval and support from his/ her line manager can make or break the result of transfer. In this program, we designed in the Post-Training Action Plan format (also see Table 5) to have the line managers give feedback and sign for it, so that communication and understanding could be shared among trainers, trainees and managers to construct a proper environment for transfer.

SEG Overseas Project Managers Training Program Post-Training Action Plan			
Name:			
Line Manager’s Name:			
Line Manager’s Email:			
1. From the past 2 months, I have learned:			
2. For the next 4 months, by applying what I’ve learned at work, I plan to achieve (your action objective(s)):			
3. I will take the following actions (your detailed action plan):			
No.	Specific Actions	Deliverables	Deadlines
①			
②			
.....			

4. Line Manager’s suggestion/ feedback/ support on my Action Plan:			
Signature of Line Manager:			
Date:			

Table 5. Post-Training Action Plan

(2) Follow and Drive Application

In this program, we set for 4 months as the time period to track and evaluate post-training application and transfer. The program team was following up the learners on line, dealing with problems and difficulties in the transfer process, in order to provide proper support.

(3) Evaluate Transfer Results

By the end of the 4th month, in order to summarize and report the result of transfer, learners were required to submit their Feedback on Learning Transfer with a given format (see Table 6). The Feedback required for three aspects: ① the result of learner's action plan implementation; ② line manager's comment and feedback on the result of learning transfer; ③ evidence for learner's application and transfer.

SEG Overseas Project Managers Training Program Feedback on Learning Transfer			
Name:			
Line Manager's Name:			
Line Manager's Email:			
1. Implementation of my action plan and results:			
No.	Implemented Actions	Effects	Deliverables
①			
②			
.....			
Are there any actions in your plan that are not implemented? Please explain the reasons.			
2. Comment and feedback from line manager on my action plan implementation and learning transfer results:			
Signature of Line Manager:			
Date:			
Appendix: Evidence of My Application and Transfer			

Table 6. Feedback on Learning Transfer

(4) Review and Certify

After evaluating transfer results, at the finishing line of the program, a review session of learning transfer would be arranged on line, and training certificates would be award to those who could pass.

3.5.2 Effects and Problems

By making the above efforts at this stage, to a certain degree, we could ensure the implementation of learning transfer actions and facilitate the transfer results. However, problems still exist such as the workplace may not have the right transfer condition, learner's motivation may decline with time, the evaluation of transfer results are difficult to be quantified, and the utilization of transfer results can be limited in scope.

4 CONCLUSION

This paper adopted a "learner-centered" perspective, studied the design of learning transfer, and analyzed its application in SEG Overseas Project Managers Training Program as an example. Based on the critical moments of learning transfer, we divided the overall learning

process into five stages—pre-training, early training, mid training, late training and post-training, analyzed the 18 factors that could influence learning transfer in each stage, and proposed the “5-Stage/13-Step” design model for learner-centered learning transfer. This model includes: at the pre-training stage—to achieve common understanding; at the early training stage—to construct learning visions and objectives, and to facilitate individual learning plan; at the mid training stage—to internalize leaning content, to externalize learning outcomes, and to reinforce learning reflection; at the late training stage—to examine learning results, to empower learning transfer, and to facilitate action plan; at the post-training stage—to gain support for transfer, to follow and drive application, to evaluate transfer results, and to review and certify. Meanwhile, this paper also studied the model’s application in training practice, and explained its effects and potential problems for each stage.

In this paper, we have made an attempt to explore into the design of learner-centered learning transfer, and have taken a positive step in promoting the effect of learner’s transfer by proposing the “5-Stage/13-Step” design model. However, problems still exist in practice, and should be further studied in future researches.

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