

Template (format) for action learning groups

Introduction

The UIC (The worldwide railway organisation) agreed to support the creation of a pilot study for an international exchange of Signalling Engineering trainers. Signalling Engineering trainers were chosen for a pilot as it was:

- a) felt important to focus on only one group for the pilot study, so as not to dilute focus and,
- b) as there was sufficient energy and support from executive leadership in the Signalling Engineering training community, to 'make the pilot happen'.

The UIC envisaged that if the pilot study was successful, the approach could be rolled-out to other railway training disciplines.

To identify good practice, an international exchange programme for trainers was started in November 2014. The programme included visits to training operations (VET institutions) in other EU countries, and the trainers worked, under the UIC vision 'Unite, Inspire and Connect', on four main objectives:

- Knowledge-sharing on training methodologies, trainer development and new training technologies.
- Developing a European behavioural competence framework for trainers.
- Developing ERTMS training.
- Collaboration between international VET institutions.

Five executive leaders supported and authorised Signalling Engineering trainers from their training organisations to start the pilot. The pilot group accompanies 11 trainers from:

- Belgium (2x Infrabel)
- Germany (2x Deutsche Bahn)
- United Kingdom (2x Network Rail),
- Norway (3x Norsk Jernbaneskøle)
- The Netherlands (2x Railcenter) plus 2 facilitators/coordinators (Railcenter).

The maximum recommended size of the group is 12 if forming a new group.

During our three year 'journey' we had to discover how to identify good practices in order to enrich them to best practices. We disseminated our learning outcomes at the World Congress on Railway Training in Berlin/Potsdam (April 2017) and at the UIC Expertise Development Programme meeting in Rome (October 2017).

Our way of working is based on the principles of action learning. In this note we describe the template which we have developed over the past three years. The template is discussed and shared with two other (UIC/EDP) learning groups. An example of the template in use is attached to this document (lesson plan).

Action Learning

At its simplest, Action Learning is a dynamic process involving a small group of people solving real organisational problems, while focusing on how their learning can benefit individuals,

groups and the larger organisation. Action Learning develops the ability to collaborate, partner, share and follow, as well as to lead naturally. In addition to learning how to collaborate, participants experience first-hand the value of being a better team and organisational partners.

Transnational meetings

During our journey we visited all the organisations to gain a good understanding of how we all do our jobs so as to learn from each other. After visiting all the organisations, we had a final meeting (March 2017) in the Netherlands to wrap-up our outcomes (the so-called intellectual outputs) and what we had learned.

Note: Visiting the (international) partners is without a doubt attractive, but a visit without clear workable objectives may feel good initially, but becomes a waste of time after more sessions (the effect declines). We wanted to add value to our work, our organisation and ourselves. So we set goals and asked the managers to send two signalling engineering trainers to the meetings.

The experience suggests that it is very important that every participating country provides two trainers because, for some, the language can be an obstacle. The major benefit is also that for reflection during the meeting, it is helpful to sit and share ideas with a colleague who speaks the same language and has the same operating reference.

Signalling Engineering is the working field of all trainers, so they all speak the same ‘technical language’; they work in the same field.

Time frame

We planned a two-day meeting at all times, which means that the participants arrived the day before the meetings started. The meetings began on the first day at 9 a.m. and finished after dinner, which lasted almost the whole evening. The second day began at 9 a.m. and ended at 2 p.m. to enable travelling back on the second day.

Main steps

The agenda of the transnational meetings listed six main topics:

1. Acquaintance (group-building).
2. Information from the host organisation, such as structure and vision for learning.
3. Exploring the training methodologies by showing the ‘why’, ‘what’ and ‘how’ of two specific signalling engineering training interventions. The host organisation also delivers two sample signalling engineering training sessions. Delegates compare the technology and methodology of training and identify good practices, cooperating on new approaches in technology (workforce and in learning).
4. Exploring the development of the trainers, starting from the requested competences and on to the related development possibilities for new and experienced trainers. Delegates compare the development approaches in the different organisations/countries,
5. Sharing the results of the meeting and making appointments for achieving the goals of the project.

6. Start communicating via Trainweb, a web-based e-environment for discussions, Q & A, sharing documents and working on our goals. This is essential for communication between two transnational meetings.

All the transnational meetings (workshops) were prepared by the facilitators in a structured format. Participants were given homework (preparation tasks) and all the meetings were evaluated. The next meeting began with what had been learned from the former meeting.

Acquaintance

The first step is becoming acquainted, on different levels:

- Knowing each other on a personal level (private and work situation) is important for understanding and communication in and outside the scheduled programme.
- Acquiring an understanding of the organisation visited: the vision on learning, the way of working, especial in the field of signalling engineering and the methodology of learning.

Our experience was that the time spent on becoming acquainted was very valuable. The talks in the coffee corner, in the workplace surrounded by all the signalling engineering systems, and not least the dinner, were the best locations for becoming acquainted. We realised that becoming acquainted takes time due to language issues. We found that after two transnational meetings, the language issues disappeared. Participants were eager to help each other in order to have the same understanding of the discussions.

Language

From the managers we were asked whether it was possible to change the participants after two transnational meetings. Our experience that becoming acquainted and working on the objectives is a matter of time and trust meant we had to answer negatively. The transnational meetings are conducted entirely in English and this imposes a requirement for the combination of technical competence in the railway discipline (signalling engineering), with language competence, which could be a barrier to potential participants.

Facilitator

It is recommended that there are two facilitators at all times. It is evident that creating engaging, interactive and innovative international workshops for trainers takes considerable skill. In addition, the language requirement further narrows the potential field of competent facilitators.

Results

The results from the group were extremely encouraging and exceed expectations.

To date, benefits include:

- Commercial benefits: through a collaborative partnership of training delivery, one of the organisations realised a 50% reduction in training facilities costs.
- Technical benefits: in one country, information about unreliable axle counters caused by water ingress led to an adjustment in a supplier contract in another country.

- Didactical benefits: a format for session plans which supports a clear idea of the structure of the course for both teacher and student. The structure will be copied and introduced in other countries.
- Managers of the delegates report that the trainers bring back concrete improvement actions; some of them have already been implemented, for example starting all training sessions with a focus on 'Lifesaving Rules'.
- Mechanical equipment in Wuppertal inspired all delegates to show the working of systems (some equipment was initially named as 'museum parts').
- Delegates are very motivated to work on the progress of the objectives.
- Good leadership enhances the motivation and development of the trainers.
- Bilateral cooperation between Railcenter (NL) and Infrabel (B). Both companies realise new training facilities and share their goals, experiences and specifications. Infrabel (B) visited Railcenter for a learning session in September 2016, and a subsequent visit is intended, by Railcenter to Infrabel Academy.
- Bilateral cooperation between Norsk Jernbaneskole and Network Rail: a visit to the new Network Rail training centre in Scotland in September 2016.

Value

It can be the case that although there is an attraction in travelling to training centres in different countries by those privileged to have the opportunity, the benefit of such activities can be regarded sceptically by some within the owning organisations. The challenge is to demonstrate measureable financial or quality-of-product benefits from the investment in time and travel, and to disseminate these benefits within the owning organisations.

It is encouraging that significant financial, didactical and technical benefits are being delivered. These have resulted from creating an environment of positive collaboration between international railway trainers who face very similar problems and issues.

Certainly cultural differences influence local training solutions and one's 'own way of working'. However, being far away from your homebase and seeing the methods used by international peers provides the opportunity to reflect on your approach and vision for training. Participants have also reported that speaking and thinking in a different language forces increased reflection.

It has been evident in the programme that the vision, visible support and commitment of the most senior training executive in participating organisations is a key enabler for success. Without this, the release of valuable training resources and a commitment to implement identified improvement opportunities will not be realised.

The results of this group and the chosen approach of collaboration between international railway trainers encouraged two new groups, under the banner of UIC, to start an exchange programme (ERTMS + Simulation).

Overall, the experience with this project has shown that participants and their managers have reported an increase in motivation as a result of the transnational meetings (workshops), to drive improvement opportunities in their own organisations.

Attachment

Activity EDP Signalling Trainers Workshop – UK (York)

Day 1: 5 March 2015

Version: 20 February 2015

Learning objectives

- Knowledge-sharing on training methodologies and new technologies (for instance ERTMS).
- Sharing signalling expertise.
- Developing a European behavioural competence framework for trainers in the rail infrastructure.
- Collaboration within and between educational rail infrastructure institutions and trainers.
- UNITE, INSPIRE, CONNECT

List of materials

- Digital Map (Europe, including Germany, Belgium, Norway, UK and NL)
- ERTMS Material
- Competence Profiles
- NTS papers

Preparation:

- List of participants and contact persons
- Invitation and programme information
- Preparation of mission – presentation by Network Rail and corporate video
- Competence profile of trainers / developers of training material (all companies)
- Form: surprising points, similarities, differences, take-aways

Room: Training Centre Network Rail York, UK



Time	Objective/content	Method	Aid	DIDACTICAL Points
09.00	<p>Welcome to Network Rail and introduction:</p> <p>How are you? (Wiljo & Jos)</p> <p>What's learned from the NL visit</p> <p>Goals/objectives and expectations</p> <p>Programme (today and tomorrow)</p>	<p>Martin Jones and if possible, local host – welcome (15 min)</p> <p>Interview</p>	<p>Map (Europe)</p> <p>Dictionary (+ photos)</p> <p>Preparation task</p> <p>PPT</p> <p>PPT/Flipover</p> <p>CAMERA!!!</p>	<ol style="list-style-type: none"> 1. Welcome to Network Rail: safety rules, household communication. 2. Personal welcome and introduction: who is Martin, where do you live and where do you work, a personal touch?! 3. Facilitators: Welcome back again, showing the video of the first meeting + programme this meeting 4. Preparation homework in PowerPoint: a few slides with their answers to lessons learned. Ask participants/delegates what they want to tell their managers when they get back to their organisations? More explicitly, question their expectations. Questions: <ul style="list-style-type: none"> - What do you expect of this meeting? - What will make it a success? - What is your available time? 5. Goals for this meeting / main objectives. <ul style="list-style-type: none"> - ERTMS training: framework for the training (task-oriented?). Target groups, learning goals, content. This group is a developing team, and we start with the design: ADDIE – analyse, design, develop, implement and evaluate). - Competence framework for trainers. - Development of trainers.



Time	Objective/content	Method	Aid	DIDACTICAL Points
10.00	The development of a training: we chose ERTMS From request to delivery Methodologies used (homework)	Walk the Talk: developing a general ERTMS training course (with material from all partners)	Background material	Methodology used (homework) <ol style="list-style-type: none">1. The homework results2. Comparison and explanation of the steps from request to delivery3. ADDIE – Steps Working in two groups: <ul style="list-style-type: none">- UIC asked us to design an ERTMS training course (= fake, but useful for the exercise!)- Which questions should be answered (target groups etc.)?- Why, what, how
12.00	Lunchtime			



Time	Objective/content	Method	Aid	DIDACTICAL Points
13.00	<p>Network Rail – Organisation (Martin Jones, Director)</p> <p>Signalling engineering (Network Rail – Martin, local host, Joe and Lawrence?):</p> <p>Training Signalling Engineering in the UK (guided tour)</p> <p>Learning methodology – best practice UK</p> <p>Main challenges (<i>why, what, how</i>)</p> <p>THIS IS AN ITEM THAT WILL BE PART OF EVERY EXCHANGE!</p>	<p>Presentation Martin Jones – Local Host</p> <p>Guided Tour</p>	<p>Video Slides</p> <p>Flip-chart with:</p> <ul style="list-style-type: none"> - surprising points - similarities - differences - take-aways 	<p>Introduction to Network Rail (organisation, important facts and figures mission and vision)</p> <ul style="list-style-type: none"> - The main challenges of Network Rail/training - Developments of training in the UK <p>Whole area tour ending in signalling engineering department: what are our main challenges (learning on the job, simulation, ERTMS???)</p> <p><i>We split the group into two subgroups; after an hour the groups change (subjects to be chosen by Joe and Lawrence!!!)</i></p> <p><i>The delegates notice all the remarkable things, the differences and similarities (agreements) form</i></p>



Time	Objective/content	Method	Aid	DIDACTICAL Points
16.00	What is different? (Wiljo & Jos)	Interview (working in pairs)	Flip-chart with a table (countries, accord, difference, remarkable, interesting) A0 format!	<p>Ask the delegates to answer the following questions:</p> <ul style="list-style-type: none"> - What is the same (accord)? - What is different? - What is remarkable? - What is interesting, usable for us? <p>Ask the delegates at the end what their conclusions are.</p>
16.45	Evaluation and preview			
17.00	Dinner together in York			



Erasmus+

Activity EDP Signalling Trainers Workshop – UK (York)

Day 2: 6 March 2015

Version: 20 February 2015

Learning objectives

- Knowledge-sharing on training methodologies and new technologies (for instance ERTMS).
- Sharing signalling expertise.
- Developing a European behavioural competence framework for trainers in the rail infrastructure.
- Collaboration within and between educational rail infrastructure institutions and trainers.
- UNITE, INSPIRE, CONNECT

List of materials

- Map (Europe, including Germany, Belgium, Norway, UK and NL)
- Memo books Railcenter for every participant

Preparation:

- List of participants and contact persons
- Invitation and programme information
- Preparation of mission – presentation RIO and corporate video
- Competence profile of trainers / developers of training material
- Form: surprising points, similarities, differences, take-aways

Room: Network Rail, York (all the training facilities)



Time	Objective/content	Method	Aid	DIDACTICAL Points
09.00	Welcome: Programme by Wiljo and Jos What's learned from day 1		Kahoot.it	We use Kahoot as a new tool
09.15	Trainer development in the UK Challenges faced in training for trainers Challenges: global, technology, aging etc. And recognition by Martin Jones, Head of Skills Training (Network Rail) Catching up with challenges on developing the trainers (next level towards profile of signalling trainers)	Lecture	PPT	Railway in general (UK) Training technology (at Network Rail) Legislation Trainers population and aging - What do you do to develop trainers (beginner to very experienced trainer)? - Collecting the outcome
09.45	<ul style="list-style-type: none"> Non-technical skills by Andrew Russell The UIC congress notes 	Lecture and discussion	<ul style="list-style-type: none"> PPT Presentation and discussion 	<ul style="list-style-type: none"> What is it? Vision Integration into trainer profiles



Time	Objective/content	Method	Aid	DIDACTICAL Points
10.30	Trainer development profile <ul style="list-style-type: none"> Collection of profiles (homework) What is expected from a trainer? Main tasks, roles, competences, ... Profile according to European ECVET standards Designing a profile <p>THIS IS AN ITEM THAT WILL BE PART OF EVERY EXCHANGE! (and made more explicit every time = intellectual output)</p>	CUT and PASTE into a Competence Profile template prepared by Jos and Wiljo	PPT	What we do in general on training the trainers <ul style="list-style-type: none"> Our trainers and developers Guest trainers <p>Ask the delegates (similarities and differences)</p> <p>Emphasise that we – this group – will work on a framework for developers and trainers; at the end of our project we will advise the EDP workgroup</p>
11.15	Setting concrete appointments Use of Trainweb Conclusions and results of second workshop Findings to share at UIC World Congress 2015 – Lisbon Erasmus+ Application and what we expect			Use of Trainweb (our experiences), does it work? Collecting conclusions and results of this meeting
12.00	Evaluation and preview of the next meeting (autumn 2015 in Oslo)		Video + Evaluation form	Questions – Unite, Inspire, Connect What is it that you will share with your colleagues? Homework? Contact in the meantime?
12.30	Lunchtime			
13.30	End of programme			