



The SEE Project Evaluation Learning Raid to the Netherlands 06-10th June 2016

Introduction

The SEE Project Learning Raid in The Netherlands was evaluated in a number of ways in order to assess whether the activity had the impact envisaged and whether staff left equipped to introduce activities and disseminate to and influence teachers and learners in their respective countries.

Koning Willem 1 College constructed a programme with background reading. The draft programme was sent to all partners and delegates. The host received a questionnaire from each delegate as to what they would like included during the learning raid.

During the raid feedback was obtained from delegates as to their experience on one activity. This was the two half day training events called the ICE Project.

Finally an evaluation questionnaire was completed by delegates at the end of the programme.

One of the aims of the evaluation was to include action research in the methodology in order to make any necessary changes for future practice and activity.

The following is the expectation from the learning raid as outlined in the project narrative.

Learning raids

Staff from partner countries will visit hosting country and learn from the practice there. This will be through observation/shadowing/lecture/workshop/discussion and other methods.

All learning raids will be interactive and afford those attending the opportunity to experience what works well in other countries and gain the background knowledge and experience as to how this happens. It is expected that staff will replicate these techniques in their own vocational settings.

Institutions hosting learning raids will be carefully chosen. They will be selected by partners at the preparatory stage of the project when they audit practice in their region. They will include vocational schools, employers, and institutions of higher education, training organisations and projects where best practice exists.

The learning raid will aim to provide examples of excellence but also challenge the practice and approaches of participants. They will aim to provide innovation and showcase excellence.

Young people will participate in the hosting and learning.

Participants will be expected to produce an action plan at the end of the raid as to what they will implement in their own country and by when.

The hosting institution will issue certificates to all participants to certify their participation and to indicate topics of education.

The feedback from the evaluation is as follows:

Expectations from Delegates

Czech Republic

Visit as many schools as possible.
To see and hear about teachers best work.
Observe useful pedagogical practice I can implement myself.
Obtain an overview of approaches to STEM in The Netherlands.
Find out about cooperation between companies and schools.
Find out about approaches to promote student involvement in technological subjects.
Explore new methods of encouraging students into technology.
Visit companies involved in school links.
Observe practical training of students.
Inclusion in the Dutch education system for under-represented groups.
Establish partners for future Erasmus activities.
Visit schools.
Observe teaching.
Find out about the education system.
New partnerships especially in Art.
Visit institutions dealing with technical training and handicraft industries.
Look at education business links.

Ireland

See other colleges in action.
Find out about best practice I can bring back.
Talk to other staff about recruitment and retention on STEM subjects.
Visits to electronic labs.
Talk to Maths tutors.
Obtain useful information such as web links.
I would like to visit local industry.
Teaching methodologies in Maths for weaker students.
Maths online materials.
Ideas on off the shelf project materials.
Science laboratory management.
Industrial links.
The education system in the Netherlands.
Information on part time courses.
Future collaboration possibilities.
Opportunity to observe teaching.
Exploration of STEM professions.



How to attract greater female participation.
Obtain strategies for introducing new methodologies in the classroom.
Personal development.
Networking.
Obtain a different perspective on applied learning.
Visit the water factory.
Visit I.T institutions.
How to promote STEM as a whole.
Find out about research into the skills needed for those involved in STEM.
Find out about student retention and progression.
Entrepreneurship.
Are Stem approaches helping employment opportunities?
Find out how technology is used in the classroom.
How to make STEM more attractive to Irish students.
Network.
Interested in Physics, Maths and Computing and how new skills in these areas are being given to students.
Institutions with courses for all ages.

UK

Visit to Engineering company.
Visit bottling plant in college.
Business Links.
Information on E-Commerce.
Employability Skills.
How gender balance is addressed between STEM subjects.
Insight into developing connections between Science and use of computing.
Engage with Dutch staff on the use of bioinformatics at level 3.
Visit institutions that prepare students for university.
Gender issues in STEM in Biology and Computing.
Find out about best practice through workshops and other techniques.
Visit a range of institutions including the host.
Look at teaching methodologies and distance learning.
Interested in media and technology.
Investigate software solutions to communication issues and for use in Core Maths.
Find out how others approach STEM.
Network with host and others.
Look at Design and Technology in the Netherlands.
Create links for my school.
Get project ideas.
Obtain ideas for getting students to apply for University STEM courses.
To observe Maths teaching.



Visit a range of institutions.

Observe real life STEM education scenarios.

Turkey

Gain knowledge about STEM practice in general.

Visit VET schools and look at their structure.

I want to find practice I can transfer to my own school.

Observe classroom practice particularly biology.

Visit cultural places such as museums if they are science related.

Compare Turkish approaches to Dutch approaches.

Attend a biology lesson.

School visits.

How is STEM organized in the Netherlands?

How are STEM lessons evaluated?

Are STEM groups differentiated?

How are highly talented students catered for?

Obtain approaches I can transfer.

How do students react to applied learning in STEM?

Attend a Math's lesson.

I want to see STEM approaches and state of play in The Netherlands.

Would like to visit VET schools and have a More Able student dimension to activities.

How are STEM students equipped with critical thinking, problem solving and collaborative skills?

Visit a range of schools and university.

Find out about best practice and how STEM equips students for the future.

Transfer best practice.

Evaluation of Activity at Koning Willem 1 College

During the raid two half days of workshops on creative thinking were evaluated by delegates.

Over a seven hour period the College delivered a training session comprising a series of interactive presentations and activities to train staff on a model of creative thinking which could be used to develop projects on a STEM theme and which could be also used with students and within institutions in general. Here is what delegates felt about the activities.

Delegates were asked 8 questions and then asked to grade the visit with 1 being the highest and 4 the lowest. They were then asked to make comments.

25 said the standard of presentations were very good, 5 said they were good.

26 said the content was very clear, 4 said it was good

26 said the support and advice offered was very good, 4 said it was good

27 said the presentations were very helpful, 3 said they were good,
25 thought the materials provided were of a very high standard, 5 thought they were good
27 thought the organization was very good, 3 thought it was good
26 thought the choice of venue and facilities was very good, 2 thought they were good, 2 did not answer

In terms of overall rating 27 people give the visit the highest ranking possible, 3 give it a good rating.
A small number of delegates were from the host institution.

Comments made included:

A nice way of getting to know The ICE method.

Time was too short but it was inspiring.

Excellent delivery at a good pace.

I learnt a lot.

Excellent workshop which provoked me to think about my own practice.

A superb 2 mornings.

Superb, will certainly apply this in my own teaching and management.

Motivating, interesting and stimulating

Interactive element was very interesting.

Great approach to problem solving.

Brilliantly paced.

Would be good to see real world solutions.

Would have liked a bit more steer on the project definition.

Personally I have gained a growth mindset.

It was excellent.

Thank you Harry.

It could not have been better. A lot of ideas to bring back for my teaching and encouragement of students.

Truly inspirational.

I have gained a new vision towards creative thinking.

A very informative training session. Thank you Theo.

Fantastic experience.

Absolutely competent workshop.

I really appreciate the efforts provided by Harry.

Very nice programme.

The overall evaluation

All delegates completed a detailed evaluation at the end of the Learning Raid

Here is a synopsis of what they said:

- **Has your knowledge and skills been enhanced?**

The ICE model will change the way I teach problem solving.

Will use the ICE technique to solve issues in the future.

Creative thinking skills enhanced.

Croon Wolter and Dros visit was informative.

Obtained ideas on how to connect theory and practice in the Water factory.

An interesting system for the organization of vocational education.

My organizational and language skills were enhanced.

Networking has enhanced my skills. My knowledge of STEM and Erasmus + has been enhanced.

Different creative tools and techniques were made available.

Importance of embedded business links apparent.

I will adapt a more applied learning approach in the classroom.

Cahoot.com- very good student quiz software.

Use more hands on practical tools.

Yes being creative is something that can be learned.

Initial planning is very important.

The importance of hands on training.

Systems engineering.

Give me an insight into how others deliver Design and Technology and reignited my passion for design and creative work.

Project ideas have been gathered.

Offered ideas on how to manage staff.

- **Where your expectations fulfilled?**

The visit has re-energized my passion for STEM education. I saw innovative practice and real tangible methods I could use in my classroom.

I was open minded on expectations but I have found new ways for students to look at problems and to think for themselves.

Expectations were fulfilled and exceeded. Looking at Design and Technology in action was great.

Creative thinking was the icing on the cake.

A number were fulfilled but not teaching observation or the learning of new classroom techniques and approaches.

My expectations were fulfilled. Only the classroom visit was missing in the programme.

I wanted to attend a lesson and to spend more time with students in STEM areas.

I expected more STEM related educational practices. I am really convinced and impressed by ICE model.

I expected to meet KWIC main director.

Most were fulfilled but I expected to attend a Biology lesson and observe an ongoing class.

Much was impressive and well delivered. I expected to see a Math's lesson and for the employer visit to have more emphasis on STEM education.

Most expectations fulfilled except the implementation of STEM in school.

The connection between ICE and STEM was an expectation I had but it was not fulfilled.

I had no expectations but a lot of what we saw was brilliant in schools.

I hoped I would learn new skills to develop the curriculum. All were fulfilled.

To find out if ICE and the Water factory work-they do.

Yes more than fulfilled, looking at integration of STEM in The Netherlands.

To talk and think about technical jobs in the future- more than fulfilled.

My expectations were only partly fulfilled, limited information on the Dutch education system and project cooperation between schools and companies. Limited number of institutions visited.

I expected some new methods of education and new experiences of good practice. This was not fulfilled as I expected.

100% fulfilled.

Disappointed with organization and the study visit with the exception of the ICE training.

Good practice and Education system information fulfilled

Creative thinking expectations surpassed, networking and new methods expectations surpassed.

Expectations met and exceeded.

I expected to be inspired and challenged. I was and much more.

- **What will you do next?**

I can use the ICE model immediately and will discuss this with others in my college.

I will incorporate the ICE strategy into my daily work.

The student success centre ideas could be implemented.

I will share project information.

I will inform partners about good practice such as the Water Factory and The ICE model.

I will communicate with senior staff across my school.

I would like to facilitate ICE training in the Zlín region.

All examples of good practice are usable in our country. The methods of preparing students for employment are what I would most like to implement.

Unfortunately there were not many examples of good practice I could implement with the exception of the ICE model.

The programme has not allowed me to identify any examples of good practice.

The ICE approach is something I will bring to my staff and students.

We will start up new STEM activities.

I will over time devise /revise my approaches to problem solving.
I will disseminate through staff meetings, presentations and department meetings.
Yes links established with other partners.
Ensure one project involves collaboration between departments.
I will share good practice with colleagues.
I will use the ICE model in my personal life.
I am planning to create collaboration in the field of work safety and education of educators.
We may implement the ICE model in our school.
I will share what I learnt with colleagues.
I will use the fruit activity in the classroom.
I am going to make adaptations to my own school management.
We will establish a common school management project.
Specifically I would like to implement the ICE model with my students.
Establish a KA2 with Dutch partner.
Promote learning through publications and social media.
Hope to implement the ICE model in my college.
I will share information through photographs and discussion.
I will share the video of the raid which was produced.
I will use the ICE model with students.
I will try out projects.
I will further my contacts in the UK.
I have identified the potential to develop a Higher Education research project.
I will deliver a lecture on creative thinking.
I will run a workshop for staff.
I have arranged to develop media/tv collaboration with a colleague.
I will implement the ICE model.

Summary

From the analysis of the evaluation there is no doubt that delegates enjoyed and learnt a significant amount on the learning raid. The vast majority of positive feedback was on the ICE model and the delivery of it. Many expressed the desire and intention to implement it in their own institution with students and staff.

This quote from one delegate seemed to sum up the training activity.

The greatest skill and knowledge has come through the ICE model training. This will have a massive impact on my work since it is an easy and effective method to implement. This could easily be used in such cases as developing new assessment methodologies, new schemes of learning etc.

The other elements of the activity which were mentioned consistently as noteworthy were the facilities, the visit to the employer, particularly the presentation on Systems Engineering, and the

Water factory within the college although one delegate asked how environmentally sound the techniques used there were.

The majority of delegates felt the raid was well organised but there were a small number who did not agree with this.

Whilst the majority of delegates felt that their expectations were met, there were a number who expected other activities to be included.

The main gaps for them were:

- There were no opportunities to observe teaching and observe good practice in STEM subjects within the classroom. A number of delegates had asked for this in their pre learning raid questionnaires.
- There were no specific activities demonstrated on STEM which they could use in their classroom.
- Whilst the employer visit was very good there were no links outlined to relationships between the employer and education.
- The overall STEM content could have been more significant in general and visiting more institutions may have covered this.

Analysing this a little further there was a dichotomy of views on the learning of good practice. Some participants obtained good practice from visiting and observing displays in the classroom and talking a little to students. However by and large it appears that this would have been more thoroughly addressed through teaching observation either in the college or the school visited.

This would have addressed a number of these unfulfilled expectations.

This learning raid has certainly built on the success of the training provided in the first 2 raids. Indeed the training provided was evaluated as exemplary.

The overall raid could have had more impact for delegates in a few areas and these should be a particular focus for the next raid, teacher/classroom observation and the links between business and education.

If the expectations outlined by delegates before the activity are not deliverable then each partner needs to tell them this so that they understand what their experience will be. This could be communicated by the organiser to the partner.

Another challenge which was apparent in previous raids and again in this one for a few delegates was that the infrastructure does not exist in their own country or institutions to build on what they learnt. Most delegates made a commitment to stay in contact and some even planned future projects.

There is no doubt from the evidence in this feedback that delegates were appreciative and learnt a lot. This is a strong partnership, where colleagues largely work well together and respect each



others' views. They are keen to learn from others, to hear other views and are receptive to new ideas. The atmosphere was relaxed and professional.

Communication could be improved around planning so that expectations of delegates are fulfilled.

Schedules were adhered to, the pace seemed right. Questions and discussions were encouraged. Delegates seemed to appreciate very much the efforts the organiser made to provide activities beyond the formal programme including restaurants and a boat tour.

27 people attended the learning raid and received certificates of attendance. 29 attended the training day.

B Martin/Ian Crawford

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