

The SEE Project Evaluation Learning Raid Galway Ireland 11-15th April 2016

Introduction

The SEE Project Learning Raid in the Ireland 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.

GRETB with some discussion with the Project Co-ordinator at Zlinsky kraj and others constructed a draft programme with background reading. The draft programme was sent to all partners and delegates. This was later modified and informed by a questionnaire completed by delegates 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 one-day training event at the National University of Ireland Galway (NUIG).

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 secondary schools to look at their success.
- Find out about labour market issues.
- Enhance skills to fit in with new developments.
- Inspiration for my management role.
- Discover issues affecting newcomers to the country.
- Learn how to implement new ideas and technologies.
- Receive an overview of STEM Approaches in Ireland.
- Obtain information that will benefit Czech schools.
- Learn about attractive ways to teach STEM.
- Visit University and companies.
- Improve language and project skills.
- Learn about successful interventions for girls in STEM.
- Find out about developments in chemistry, physics and maths and use of new technologies.
- Find out about the Irish education system.
- Find out about new teaching approaches including ICT.
- Visit a secondary school, university, private institution or company.

Netherlands

- Network.
- Observe and find out about ICT courses.

Find out about innovation and new ideas in the field of education in engineering.

Learn about the programmes offered by schools with regard to sustainability and entrepreneurial behaviour.

Visit engineering schools that are working with a hybrid learning environment.

Visit manufacturing companies in the food industry or manufacturing industry. I want to find out what the needs of industry are with regard to the skills of young professionals.

View best practice.

Learn more about the way staff tend to approach this topic with technical students.

Learn and hear about the different programmes schools do.

Go to technical companies.

Visit small independent companies/self-employed crafts people.

I would like to learn about the way I can approach and trigger young people in technical studies to develop not only their technical skills in their profession but also the competences they need to learn to be a successful professional in the rest of their career.

UK

Learn about new technology to use in workshops.

How I can implement STEM in my work.

Gain new resources.

Visit primary, post-primary, 3rd level institutions to gain some insight into how they engage with STEM.

Visit the University in Galway and meet their Science & Engineering Outreach team to share good practice.

Visit industry to explore their partnership & engagement with schools, colleges & HE in the STEM area.

Learn how schools, colleges, businesses & HE evaluate the impact of their interventions.

Learn how providers effectively market & promote STEM outreach to schools and the community.

Discover practical ideas on STEM engagement opportunities including more ideas for “taster” sessions for various age groups of students.

Learn about the use of emerging technologies.

Visit a University

Visit schools/colleges to see how these link with STEM engagement opportunities from Universities and how it works for them including student feedback.

Visit businesses involved with STEM engagement.

Visit Secondary schools / Science departments, Sixth Form Colleges / Technical Institutes, Universities / Bio- medicinal sciences department.

Visit Scientific Labs / Employers.

Observe a variety of lessons

Share good practice with other STEM Ambassadors across Europe and develop my skills.

Obtain ICT training.

Learn and observe.

Discover delivery styles, business links, careers advice and guidance and the curriculum.

Obtain practical ideas and wider approaches to STEM learning.

Turkey

Obtain STEM knowledge around use of methods and activities in the classroom.
Learn how STEM practice is being used in the schools and classrooms.

Learn how STEM is applied in the Irish educational system.

Increase my knowledge about STEM.

Visit institutions that use STEM practices in the field of engineering and technology.
Improve my point of view on scientific facts about physics.

Visit some technical institutions and schools.

Observe experiments.

Study how physics is related to engineering in Ireland.

Learn techniques that teacher and students in the classroom use.

Learn about other education systems.

Evaluation of Activity at NUIG

During the raid, a full day of workshops and a tour at NUIG was evaluated by delegates. Over a six hour period the University delivered a series of workshops on a range of themes and completed the activity with a tour of the Engineering Department. The schedule appendix A is attached. Here is what delegates felt about the activities.

Delegates were asked 4 questions and asked to make comments.

What did you hope to gain from the visit?

Knowledge.
Success criteria.
Outreach project information.
Better methods of education for delivering STEM subjects.
Find out about STEM promotion, engagement and activities at NUIG.
See how technology is used in a large university.
Discover how to use technology in the classroom.
Find out about new developments in teaching and learning.
Observe innovative STEM practice.
Become inspired by university education.
Learn from others.
Observe and learn how STEM is applied in teaching.
Have an insight into teaching strategies.
Observe practical examples of STEM outreach.
Obtain more insights into using technology in the classroom.
Good practice.
Inspiration.

Was the Visit well organized?

23 delegates returned questionnaires and they all said the visit was well organised

Other comments included:

Interesting speakers.
Good Time schedule.
Organisation was very good and punctual.
Excellent range of speakers and tour.
Great interactive session using App clicker.
A warm welcome.
Absolutely.
Not enough time for lunch.
Very good event.
Presenters were well prepared and experienced.

Well organised transportation.

Nice hotel.

Tour was good but perhaps could have been first.

Excellent.

Time management perfect.

A great balance between theory and practice.

An exhilarating walk for lunch.

Packed but slick.

Very interesting during the whole day.

Friendly and well thought out.

Good speakers and interactive.

All was excellent.

Great range of ideas and lectures.

Did you enhance your knowledge and skills?

Definitely, many ideas I can use in my own work.

Yes around learning styles and addressing these in teaching.

Yes particularly around teaching practice and technology use in teaching.

Yes, a number of projects that could be transferred to the UK and other European projects.

Yes, the concept of content creation.

Yes through use of Rubrics for assessment and grading.

Yes through provoking presentation for future lesson planning.

Definitely through feedback methodologies.

Yes, assessment techniques.

Great session on teaching and learning addressing inclusiveness.

Yes, I want to start a video project with students.

Yes, Africa Code week.

A new idea for me -Parents/children learning together.

Some good practice such as clicker, coding, grade mark.

The session on engagement deserves special mention.

Methods for learning English and Irish on iPads noteworthy.

Clicker presentations were a big benefit.

Speakers were engaging.

Perfect content.

Some new learning some renewing my knowledge.

Yes around pedagogy and new technology.

Yes even though I am not a teacher I can use many of the approaches.

Will you be able to use anything you learnt in your future work?

Yes for sure.

Use of software for feedback.
Learning styles.
Use of technology.
Methodology for motivation of students and educational technology in general.

The idea of a video competition.
Collaboration opportunities for investigating new technologies for teaching.
I will use polling system in my lessons.
Established links with NUIG and will follow up.
Better use of ICT in the classroom.
Competitions.
Activity linking the past generations and present.
Trial techniques in 1 to 1 sessions and small group work.
Use clickers in my work.
Quick wins and long-term developments.
Links with NUIG.
Integration of innovative practice into my work.
Use of technology to supplement teaching.
Interactive methods in the laboratory.
Increase my feedback techniques in teaching.
Coach my staff.
A number of methodologies-video use, technology and grade mark systems.
Adapt learnt skills myself.
Use learning in new projects.
Enhancement of teaching and learning practice.
Ideas around STEM ambassador engagement.
Use of iPads and film.

The overall evaluation

18 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?**

Communication skills enhanced.
New knowledge obtained about Africa code week and educating parents and children alongside each other.
Found out about inspirational teaching methods using ICT.
Learnt about motivating people/students (give them ownership, improve interaction in the classroom).
I obtained an overview of how to integrate IT usage into the classroom including one note and mobile phone applications.

I have learnt technology is very important in education.
My skills will have developed. I have learnt how to use technology in my own lessons.
I will be able to use much of what I observed in my own lessons.
Knowledge enhanced and links established with all institutions.
Learnt about the use of smart technology in the classroom and the need to address learning styles in the classroom.
Increased knowledge on applied learning techniques.
New techniques obtained to enhance pupil learning

Key aspects that I will look to use include:

- Use of buzzers and phones for quizzes - ideal for starters and checking learning
- Use of electronic assessment
- Use of single learning platforms
- App developments using students
- Developing alternative approaches to Ambassador engagement
- Use of IPADs for short video links

A realization that we need to leave the old-fashioned teaching approaches behind to encourage young people into STEM
Good employers such as Medtronic can make a difference to recruit people into engineering.
Learnt new interactive methods for teaching chemistry and math's.

- **Were your expectations fulfilled?**

New approaches to service delivery learnt.
All expectations met.
My expectations were to learn more and observe new experience and technology, to enhance my skills. These expectations were fulfilled.
Hoped to learn a little more about evaluation methods but these were in their early days.
The educational system surpassed my expectations.
I learnt more than I have expected. I am impressed.
Expectations fulfilled.
I was satisfied with the visit. Everything went according to schedule.
Definitely fulfilled. I learnt very much.
My expectation was fulfilled moreover I obtained information about use of ICT in the Irish education system. It was very beneficial for me.
My expectations were completely fulfilled.
Fulfilled and will contribute to my work in schools.
Absolutely yes.
All my expectations were more than fulfilled.
My expectations were more than fulfilled. I have a lot of new knowledge and skills, particularly in technology.
I am very satisfied with my new knowledge and skills especially interactive technology.

- **What will you do next?**

I will be using new teaching methods in Math's and ICT. I will meet with colleagues and students to introduce them to new teaching methods in Ireland.

I will present to colleagues on new ideas and change teaching practice.

I will support teachers with new ideas.

I will recommend a STEM festival.

I will raise the issue of underrepresentation of women.

I will support the use of interactive methods of teaching and lead my students to be more interactive and communicative.

I will meet with the directors of secondary schools in September 2016 to cascade knowledge.

I am keen to use tablets and other applications in education and will do this through my role as Regional Developer of Education.

I will aim to get more interaction in my contact with students.

I would like to establish a LinkedIn group to share information and easily contact other participants.

We are planning to organize a dissemination meeting which is going to be a round table with the Nevsehir VET school managers.

A press release with details of the Irish visit will be published.

The next meeting could include classroom activities of STEM that might be applied by participant teachers in their own country.

I will develop and use techniques in my daily work in Turkey.

It is important to share what we learnt with colleagues and encourage developments within our education system.

Ideas for future collaboration with EU partners will be developed and followed through with possibilities for joint funding initiatives and pedagogic research.

I will share good practice with my colleagues.

I have some recommendations for my senior management.

A report and presentation for my faculty will be prepared.

I will implement many new findings including applied learning techniques, innovative use of ICT, organization techniques.

Will provide information to a staff meeting.

Made links with organisations.

Summary

All delegates felt that their expectations were met, mostly surpassed. This learning raid seems to have continued to build on the success of the first raid. The mix of different learning environments, practical activities, projects, observations and so forth seemed to give the delegates plenty of techniques and ideas to implement in their own countries. The focus on ICT and interactive technologies which can be used in the classroom engaged all participants and was seen as a particular highlight of the visit.

The balance between the University setting, the visit to Medtronic, the GTI, workshops and the visit to the Microsoft school in Claregalway worked tremendously well.

The challenge 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.

The activity which was evaluated at NUIG has been very well received. Delegates seemed to realise that although this was a higher education establishment there was much learning for their institutions and students provided. They seemed to largely appreciate the method of delivery provided by University staff. It was a packed schedule but speakers were often by name in delegates evaluations. Undoubtedly Brendan Smith made a huge impact at the beginning with his thoughtful and inspirational input and Seán Ó Grádaigh did more of the same at the end with his fascinating input on teaching.

Recommendations for future activities include the establishment of a LinkedIn page or something similar. This was mentioned by a few delegates, also the introduction of some classroom topics that can be delivered across the partnership was suggested for the next number of learning raids.

The projects which the delegates learnt about such as The Africa Code Week, the parents /students workshops, the use of polls, video competitions and past present projects all seemed to have a big impact.

There is no doubt from the evidence in this feedback that all were appreciative and learnt a lot. This is a strong partnership, where colleagues work very 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. Everything ran smoothly. All appear to have equal standing and the ability to make contributions.

Schedules were adhered to, the pace seemed right, the programme was tailored to what delegates required. Questions and discussions were encouraged.

22 people attended the learning raid and received certificates of attendance. 24 attended the training day.

B Martin/Ian Crawford

24/4/2016