

**A**SSIST  
ASSESSING SOFT SKILLS IN STUDENT TEACHERS



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University of Limerick



# ASSIST Initiative



- ▶ **University of Limerick, Limerick, Ireland**
  - Technology Education Research Group (TERG)
  - Dept. Design & Manufacturing Technology
- ▶ **Initial Technology Teacher Education (ITTE)**
  - B. Tech (Ed) - NFQ Level 8 Honours Degree
- ▶ **Focus of Research Investigation**
  - Pedagogical & Technological Approaches
  - Validation & Recognition of Soft Skills
- ▶ **The ASSIST Digital Badges**
  - Graduate Attributes
  - Soft Skills



# UL Application Case



- ▶ **B. Tech (Ed) - NFQ Level 8 Honours Degree**
  - EY4003 - Subject Pedagogics 1 (Wood Tech. & Graphics)
  - EY4013 - Subject Pedagogics 1 (Engineering Tech. & Graphics)
  
- ▶ **12 Weeks (Autumn Semester 2015)**
  - 1 Hour Subject Pedagogy Lecture p/w
  - 2 Hour Graphical Pedagogy Lab p/w
  - 2 Hour Practical Pedagogy Lab p/w
  
- ▶ **Second Year ITTE Students**
  - 5 Female
  - 95 Male



# Articulation



## ► Clarification

- This badge will be awarded to people who display evidence of the capacity to make something more comprehensible and free from ambiguity.



## ► Narration

- This badge will be awarded to people who display evidence of the capacity to provide a descriptive account or tell a story about something.



## ► Representation

- This badge will be awarded to people who display evidence of the capacity to effectively use something (e.g. metaphor, symbol) that stands for something else



## ► Summation

- This badge will be awarded to people who display evidence of the capacity to add the most important pieces of something together in a concise form.



# Collaboration



## ▶ **Appreciation**

- This badge will be awarded to people who display evidence of the capacity to recognise the worth, quality, or importance of something or someone.



## ▶ **Contribution**

- This badge will be awarded to people who display evidence of the capacity to give something to someone in order to help achieve or provide something.



## ▶ **Negotiation**

- This badge will be awarded to people who display evidence of the capacity to discuss something formally with someone in order to reach an agreement.



## ▶ **Participation**

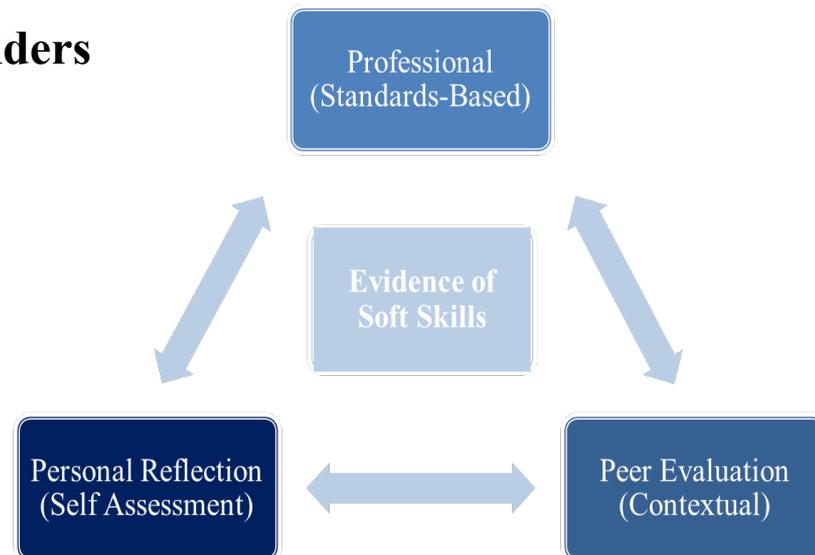
- This badge will be awarded to people who display evidence of the capacity to be involved in an activity or event with someone in doing something.



# Assessment Architecture



- ▶ **Authentic Evidence of Student Performance**
  - Multi-Modal Capacity
- ▶ **Situational Context of Skill Demonstration**
  - Construct of Capability
- ▶ **Relative Progression of Initial Attainment**
  - Targeting Specific Benchmarks
- ▶ **Value Judgements of Educational Stakeholders**
  - Self Assessment
  - Peer Observation
  - Teacher Evaluation



# Technological Infrastructure



- ▶ **Private Web Hosting - [www.terg.ie](http://www.terg.ie)**
  - Dynamic Web Space
  - Full User Confidentiality
  - Online Registration Forms
- ▶ **Facilitating Soft Skill Evidence**
  - Supporting Multimodal Data Files
  - Managing Submissions & Accreditation
- ▶ **Assessing Soft Skill Evidence**
  - Benchmarks of Soft Skill Attainment
- ▶ **Badge Earners**
  - Individual User Profiles
  - Linked to Professional Networks

## ASSIST Registration

\* Required

Forename \*

Surname \*

Student I.D. \*

Student Email \*

Current Year Group \*

Submit

*Never submit passwords through Google Forms.*

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# Badge Nominations



Self-Critique

Peer-Critique

Peer Name: \_\_\_\_\_

1.	<b>Level of Participation</b> <input type="checkbox"/> Excellent <input type="checkbox"/> Very Good <input type="checkbox"/> Good <input type="checkbox"/> Did Not Participate	<b>Evidence:</b>
2.	<b>Impact of Participation</b>	

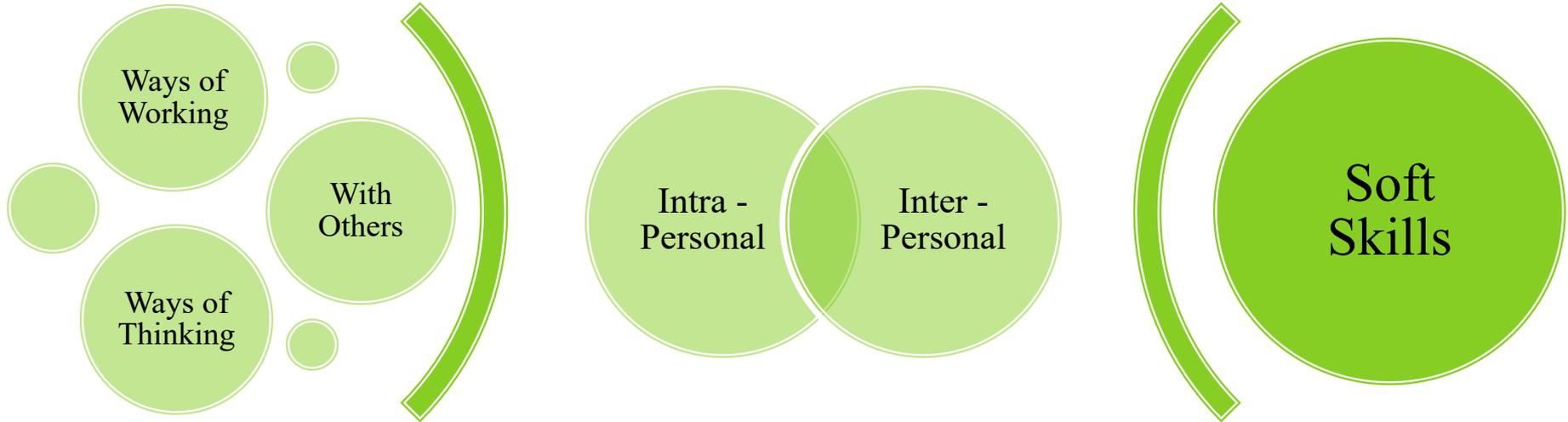
- ▶ What are the factors that influenced the nature and quality of participation?

# Badge Accreditations



Attribute	Soft Skill	Student Activity	Awarded
	Clarification	Pair Work: Verbal Demonstration	53
	Narration	Pair Work: Verbal Discussion	65
	Representation	Group Work: Video Presentation	67
	Summation	Autonomous Student Evidence	59
	Appreciation	Autonomous Student Evidence	81
	Contribution	Group Work: Project Feedback	67
	Negotiation	Class Activity: Walking Debate	68
	Participation	Group Work: Critiquing Drawings	65

# Summary



- ▶ **Motivational** - Digital Credentials
- ▶ **Credible** - Badge Currency
- ▶ **Sustainable** - Technological Capacity

# Application case: Math coach

KTH Royal Institute of Technology



Stefan Hrastinski



Stefan Stenbom



Martha Cleveland-Innes



Simon Benjaminsson



Anna-Maria Martinsson



Stockholms  
universitet



CHALMERS



GÖTEBORGS  
UNIVERSITET



LINKÖPINGS UNIVERSITET



VETENSKAPENS HUS



MIDROC



## Börja chatta!

Öppet mån-tors 17:00 - 20:00

?

?

?

?

[Användarvillkor](#)  Kom ihåg mig ?

[Starta chatten!](#)

Browser tabs: Ko:0, Mattecoach, Mattecoach, Mattecoach

Address bar: mattecoach.se/history/4UuKiV7sq1?name=Simon%20(coach)&type=coach

Logo: **Mattecoach** PÅ NÄTET

Tools: [Eraser] [Pen] [Arrow] [Zoom] [Grid]

**Chatt**

och x+h

**Daniel (Coach):** Och du fick ju reda på vad x, och x+h är i uppgiften

**Daniel (Coach):** Så då kan du stoppa in värdena av x, h och x+h i derivatans definition

**emma: ?**

**Daniel (Coach):** Precis, och om x = 0, och x+h=0,1. Vad blir då h?

**emma: 0,1**

**Daniel (Coach):** precis

**Daniel (Coach):** Så då kan du skriva 0,1 istället för h

**emma: ?**

**Daniel (Coach):** även där kan du ju skriva 0,1

**emma: ska man sen sätta in värdena i funktionen?**

**Daniel (Coach):** Absolut

**emma: är det derivatan?**

**Daniel (Coach):** Yup, det kommer ge derivatan hos sekanten

**emma: jag vet inte men det ser fel ut**

**Daniel (Coach):** Men det verkar stämma tycker jag

**emma: ok**

**emma: jag litar på deg**

**Daniel (Coach):** (Y)

**emma: jag återkommer i fall att**

**Daniel (Coach):** Okej! 😊

**emma: men är det verkligen sekantens lutning?**

Skriv ditt meddelande här...

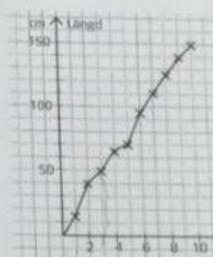
$$f(x) = \frac{1}{x+1} \quad \left( x=0 \quad x+h=0,1 \right)$$

$$\frac{f(0,1) - f(0)}{0,1} \rightarrow \frac{\frac{1}{0,1+1} - \frac{1}{0+1}}{0,1}$$

$$\frac{1}{1,1} - \frac{1}{1} \rightarrow \frac{-0,09}{0,1}$$

$$f'(x) = -0,9$$

**1** Anna har planterat en solros. Grafen visar hur den växt till.



a) Hur lång var solrosen efter 3 veckor?  
b) Efter hur många veckor var den 125 cm lång?

**2** Sara har ett mobiltelefonabonnemang som kan skrivas med hjälp av funktionen  $y = 125 + 0,50x$ , där y är den totala månadskostnaden och x är antalet samtalsminuter.

a) Vad betyder talet 125?  
b) Vad betyder talet 0,50?  
c) Beräkna kostnaden för Sara om hon ringt 100 minuter en månad.

**Tutoring online tutors:  
using digital badges to  
encourage the  
development of online  
tutoring skills**



# Three challenges / badges

- ▶ Encourage discussion
  - ▶ Encourage reflection
  - ▶ Provide emotional support
- 

# Encourage reflection

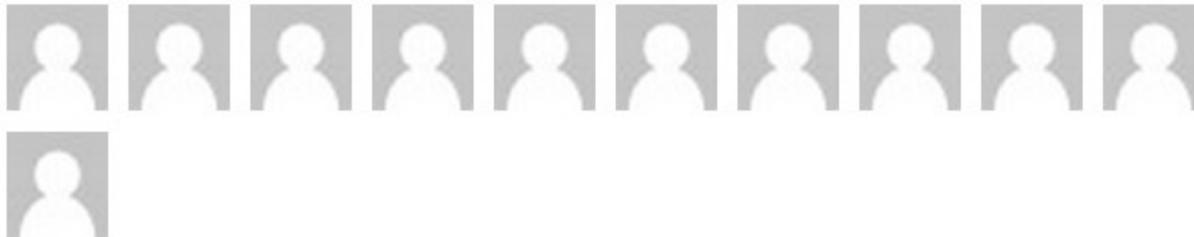
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Math coach conversations are recommended to conclude with reflection. During the reflection, the coach encourages the student to reflect on what s/he learnt during the conversation.

Submit an example of a chat transcript as a Word or PDF document that illustrates how you encouraged a student to reflect on what s/he learnt during the conversation.

## People who have earned this:



## Create a New Submission

Attachment:  No file chosen

# Findings

- ▶ Digital badges can be used to encourage reflection and the development of online tutoring skills.
  - ▶ Identification of the challenge to balance the private activity, reflection on tutoring skills, and the social activity, communication with the students.
  - ▶ Encourage discussion was the most applied online tutoring skills, while encourage reflection and provide emotional support were more challenging to apply in practice.
- 

# Six challenges / badges

- ▶ Encourage discussion
  - ▶ Encourage reflection
  - ▶ Provide emotional support
  - ▶ Elicit coachee's level of understanding
  - ▶ Use goal-oriented communication
  - ▶ Build trust
- 

- ▶ Six+ sub-badges =  
Math coach badge/certificate

