



Bedömningsexempel och sambedömning med hög reliabilitet

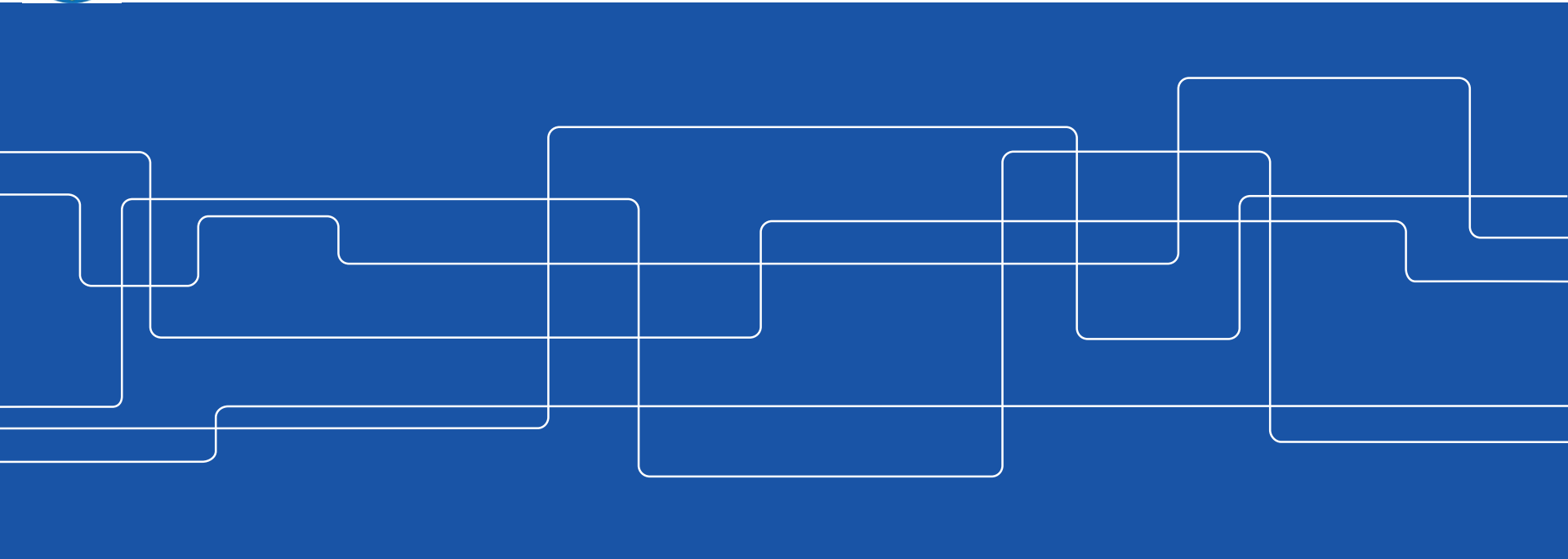
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Haninge
kommun





De fem nyckelstrategierna för formativ bedömning

	Vart eleven är på väg	Var eleven befinner sig nu	Hur eleven ska komma dit
Lärare	1. Klargöra, dela och förstå lärandemål och framgångskriterier	2. Skapa och leda affektiva diskussioner, uppgifter och aktiviteter som lockar fram belägg för lärande	3. Ge feedback som för lärandet framåt
Peer	Dela och förstrå lärandemål och framgångskriterier	4. Aktivera eleverna som lärandersurser för varandra	
Learner	Dela och förstrå lärandemål och framgångskriterier	5. Aktivera eleverna som ägare av sitt eget lärande	

Leahy et al (2005), Black & Wiliam (1998), Hartell (2012)



The Concept of ACJ

Assessment Example



Assessment Example



Assessment Example



Which one is "better"?



Adaptive Comparative Judgement

The picture can't be displayed.





Adaptive Comparative Judgement

SIGN UP / IN ?

Portfolio By SchoolOne StudentThree >

Delta

All Having Growing Proving

- Be capable of holding bird food
- Successfully display the intelligence of birds
- Be suitable to be kept outside
- Be out of reach of vermin
- ~~Have~~ The ability to be cleaned to prevent infection.
- Test their intelligence safely, without injuring the birds.
- Be unique, creative and attractive in design.

Picture2.png

(problem solving) and a box test (also problem solving). I can incorporate these to my design to test their intelligence

- Acrylic is an ideal material to use because it is waterproof, durable and it can be cut quickly and accurately when designed on CAD by the laser cutter.
- The feeder can be made vermin-proof by hanging it from an object rather than having it attached to something on the ground so they cannot gain access to it
- Stepper motors, microswitches and buzzers will be used as components for my design.

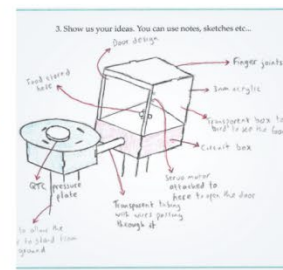
Record a 30 second voice file telling us why this is

Picture5.png

- intelligence
- Materials which would be ideal to use
 - Method of making the project weather-proof.
 - Method of making the design vermin-proof.

Picture4.png

- internet
- Ask technology teacher
 - Analyse existing solutions
 - Analyse the function of each component.



Picture3.png

methods of testing a birds intelligence. I think that I will mimic these existing designs to a certain extent except that the mechanisms in my design will be controlled by electronic components. My first thoughts also include how will I successfully make this vermin proof and weather proof.

I think it is important for this project design to be made of materials that are attractive to birds. It must successfully test a birds intelligence when it tries to gain access to the food stored inside. It must be designed so that it is not a vermin proof.

i.	ii.	iii.
The first classmate I presented my design to thought that the general design was good but was not sure whether it will	The second person did not fully understand how my design worked. Once I had explained my design	The third classmate that gave me feedback was impressed by the design but questioned whether the bird would



Adaptive Comparative Judgement



Adaptive Comparative Judgement

Pathbrite®

SchoolOne Stud... > Delta

All Having Growing Proving

Pathbrite®

SchoolOne Stud... > Delta

All Having Growing Proving

Add / update item comment [X]

comments you wish to make about this item can be left here

[Text input area]

update comment

- Be capable of holding bird food
 - (Successfully) displaying the intelligence of birds
 - Be suitable to be kept outside
 - Be out of reach of vermin
 - ~~Have~~ The ability to be cleaned to prevent infection.
 - Test their intelligence safely, without injuring the birds.
 - Be unique, creative and attractive in design.

Picture2.png

(problem solving) and a box test (also problem solving), I can...
 ... is good

Picture3.png

record a 30 second voice file to tell us what you will do next.

1.m4a

-function
 -size
 -shape

water source
 stand

Picture8.png

intelligence
 - Materials which would be ideal to use
 - Method of making the project weather-proof.
 - Method of making the design vermin-proof.

Picture4.png

inter
 - Ask
 - Analyse
 - Analyse each component.

Picture7.png

the bird with food if they succeed.

Picture2.png

7: Classmate Feedback

I	II	III
simply a water source if possible	make a comfortable area for the bird to stand on while it is eating.	making a ledge on which the bird can stand.

Picture7.png

... is more intelligence. I think that I will make these eating devices to a certain extent except that the mechanism in my design will be controlled by electronic components. My first thoughts also include how well I successfully make this vermin proof and weather proof.
 The first design I have thought of includes the use of a舵 to open a kind of door controlled by servo motors. When the correct amount of pressure has been applied by the bird, the door will open and it will be able to access the food. I believe that this design may be too simple and I will think of more to develop it. I am also

Picture1.png

i. the first classmate I presented my design to thought that the general design was good but was not sure whether it would be weather-proof. He also was unsure of how it was going to be vermin proof and was suspended from the ground.
 ii. the second person did not fully understand how my design worked. Once I had explained my design to her she thought that it was a clever design.
 iii. the third classmate that gave me feedback was impressed by the design but questioned whether the bird would be able to figure out how to gain access to the food. He thought it might be too complicated.

Picture7.png

how smart are birds?
 a Best location for birds
 a safety precautions
 a Is the size reasonable
 a how I should design the inside
 a should My project incorporate a water supply

Picture2.png

a Books if possible
 a The information given by my teacher

Picture4.png

Do you agree with your partner's feedback?
 record a 30 second voice file to tell us what you will do next with your feedback so we can help you.

design is good and in theory it will be successful.

which the feeder will stand from the ground.

What is important to project design?
 -function
 -size
 -shape



Adaptive Comparative Judgement

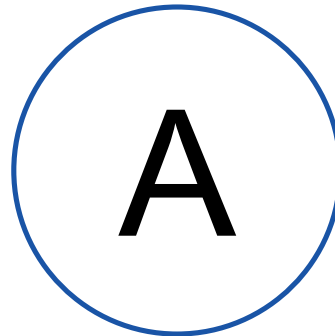


Probability and Parameter Values

"Worse"



"Better"

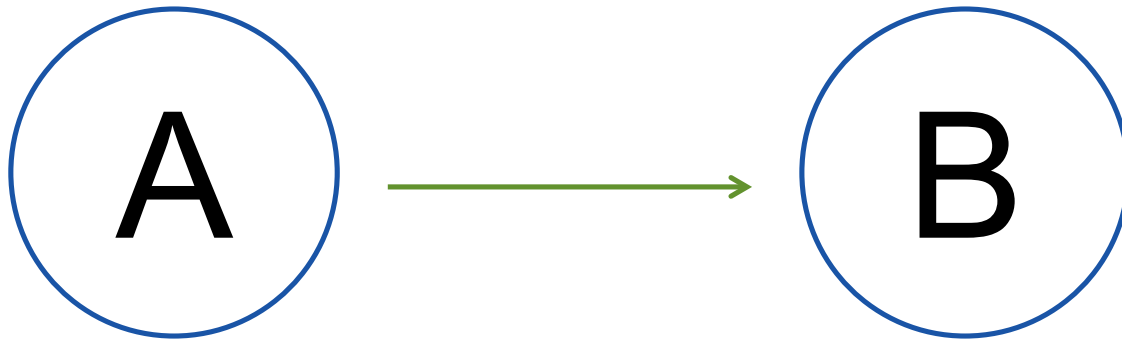


Probability and Parameter Values

"Worse"



"Better"



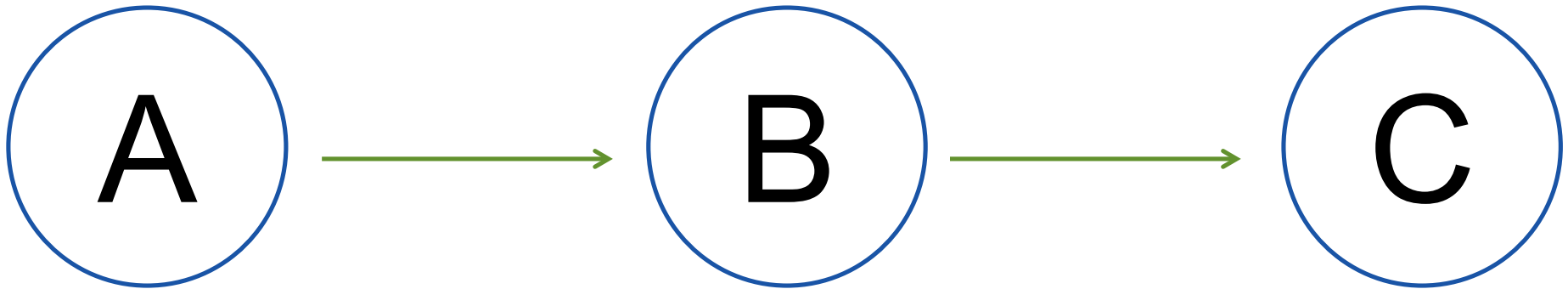
A judgement is made that B is better than A

Probability and Parameter Values

"Worse"

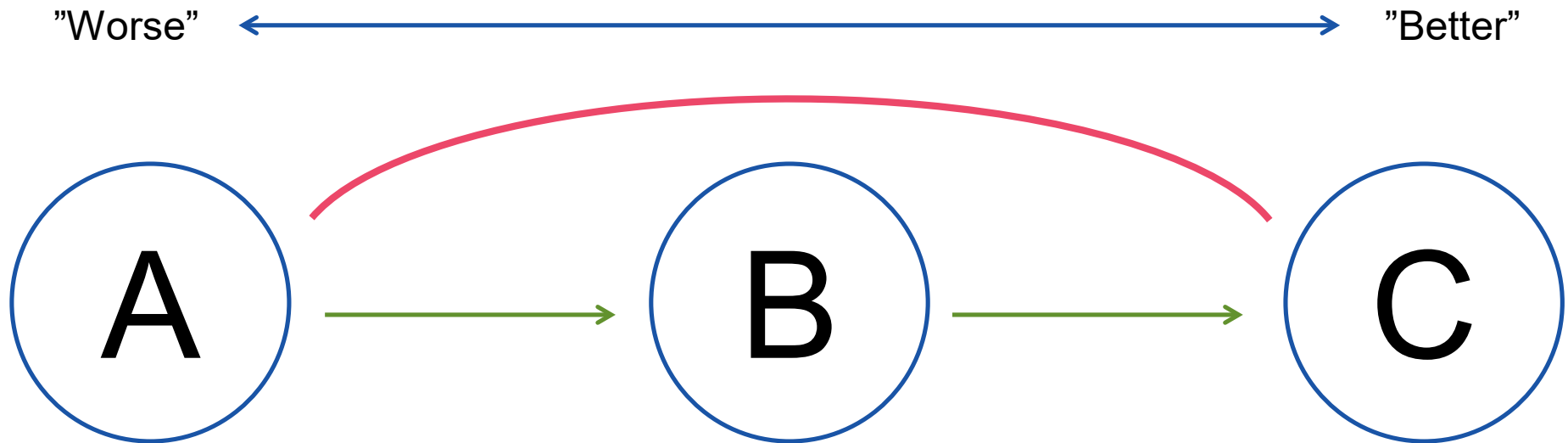


"Better"



A second judgement is made that C is better than B

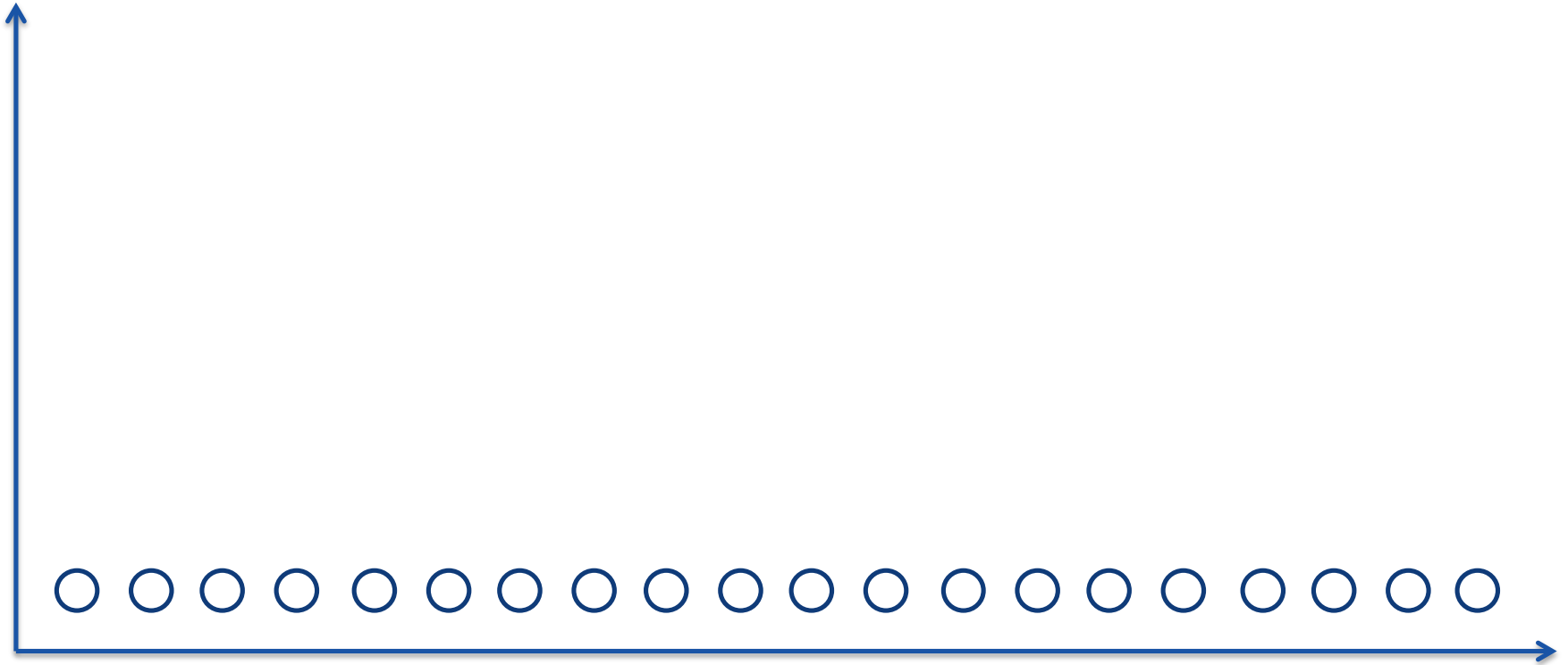
Probability and Parameter Values



Therefore, it is probable that C would be better than A
More judgements = More confidence

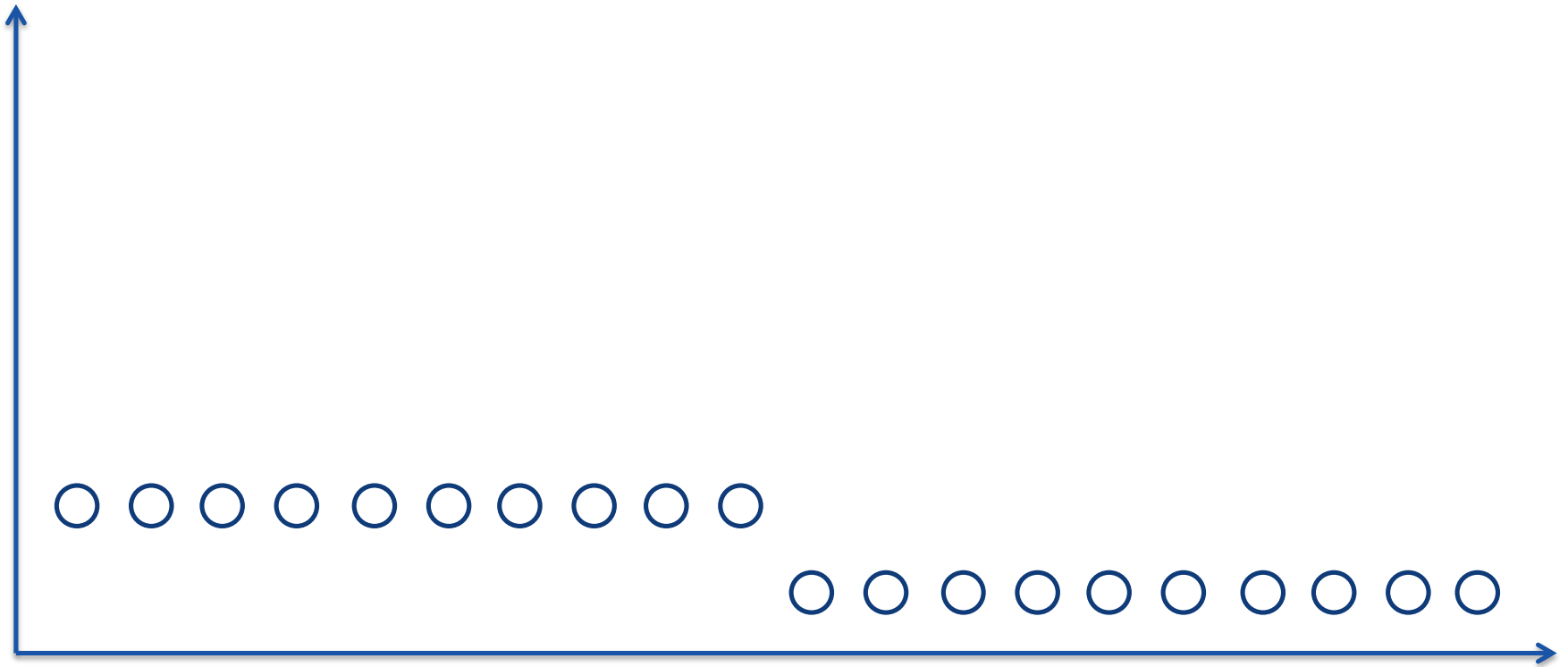


The Creation of an ACJ Rank





The Creation of an ACJ Rank



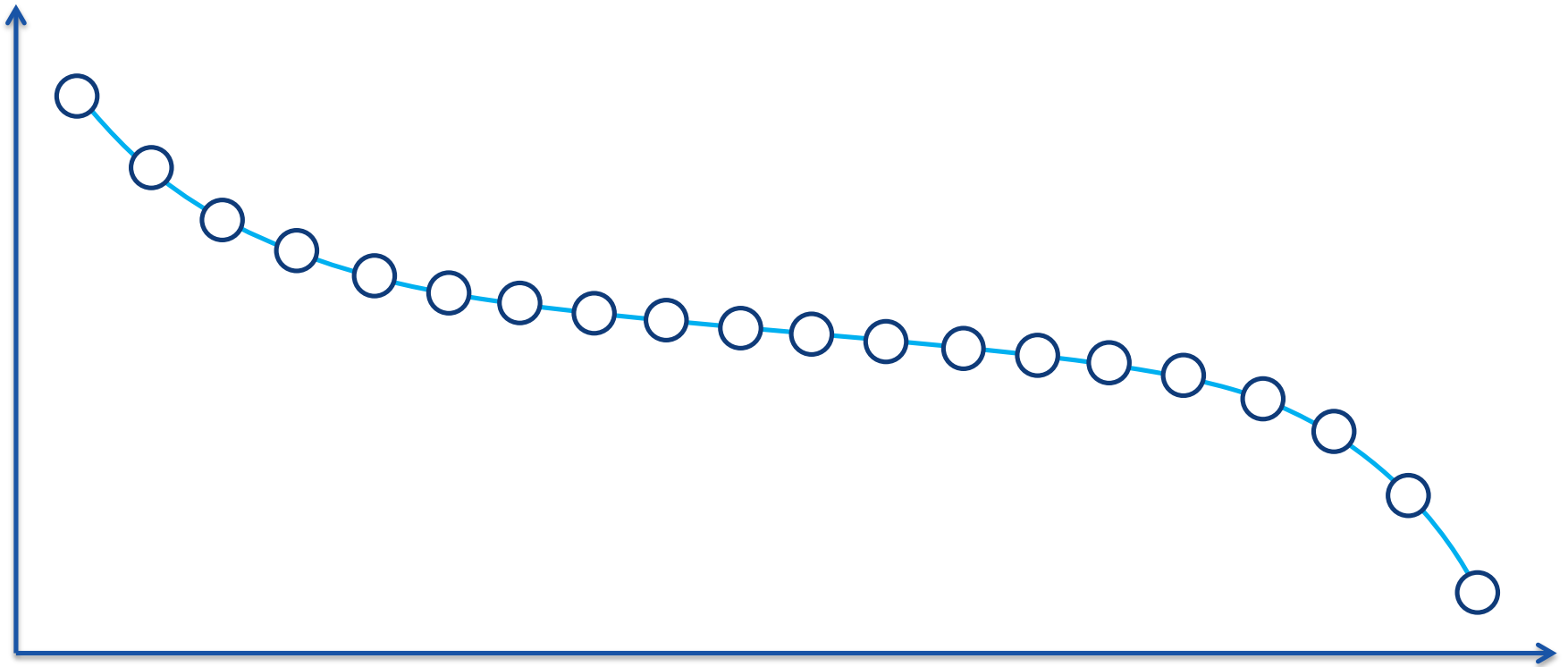


The Creation of an ACJ Rank

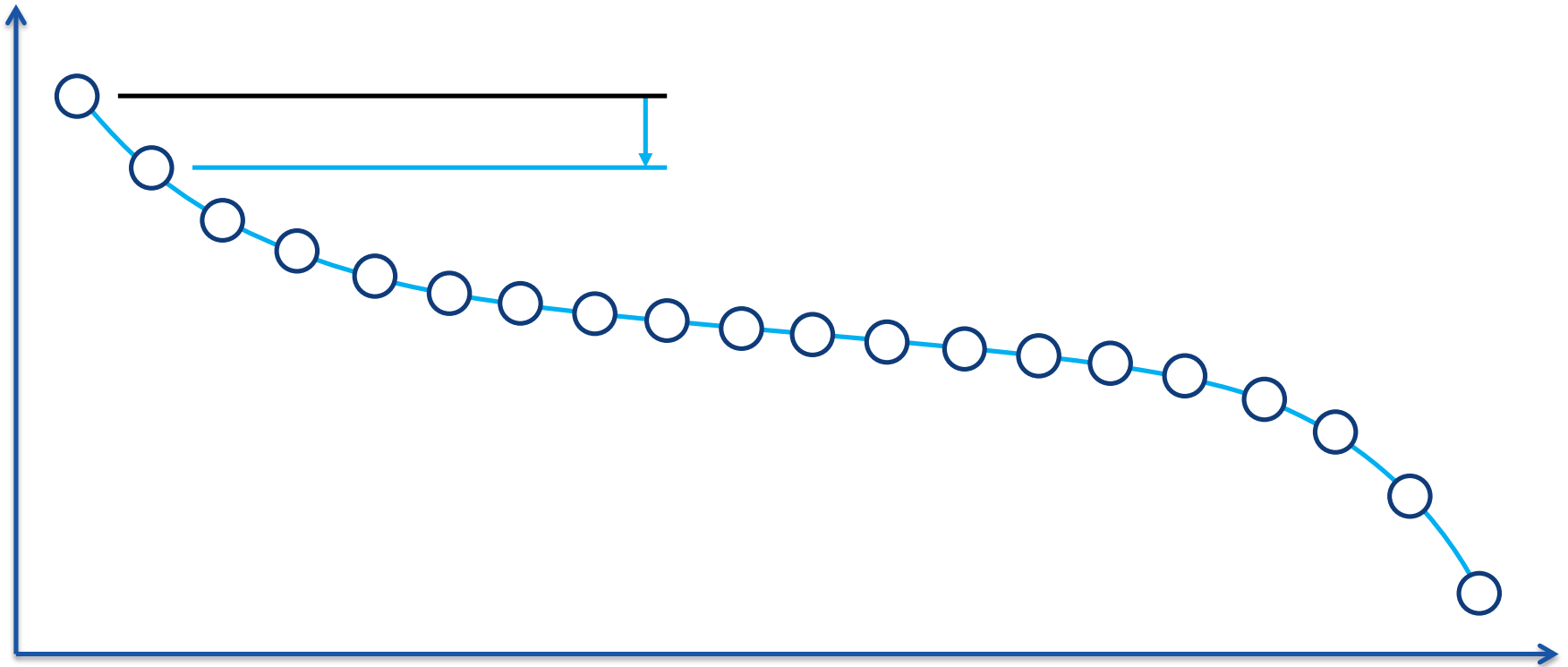




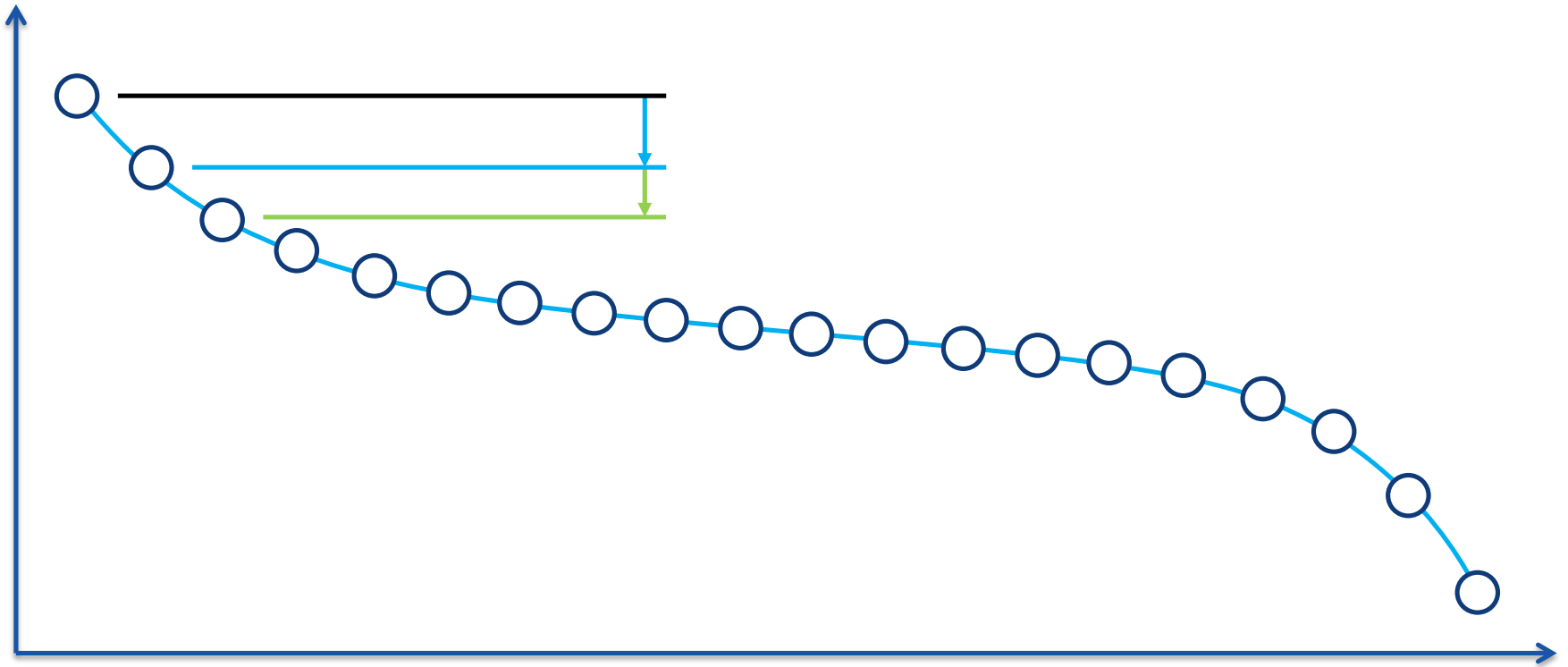
The Creation of an ACJ Rank



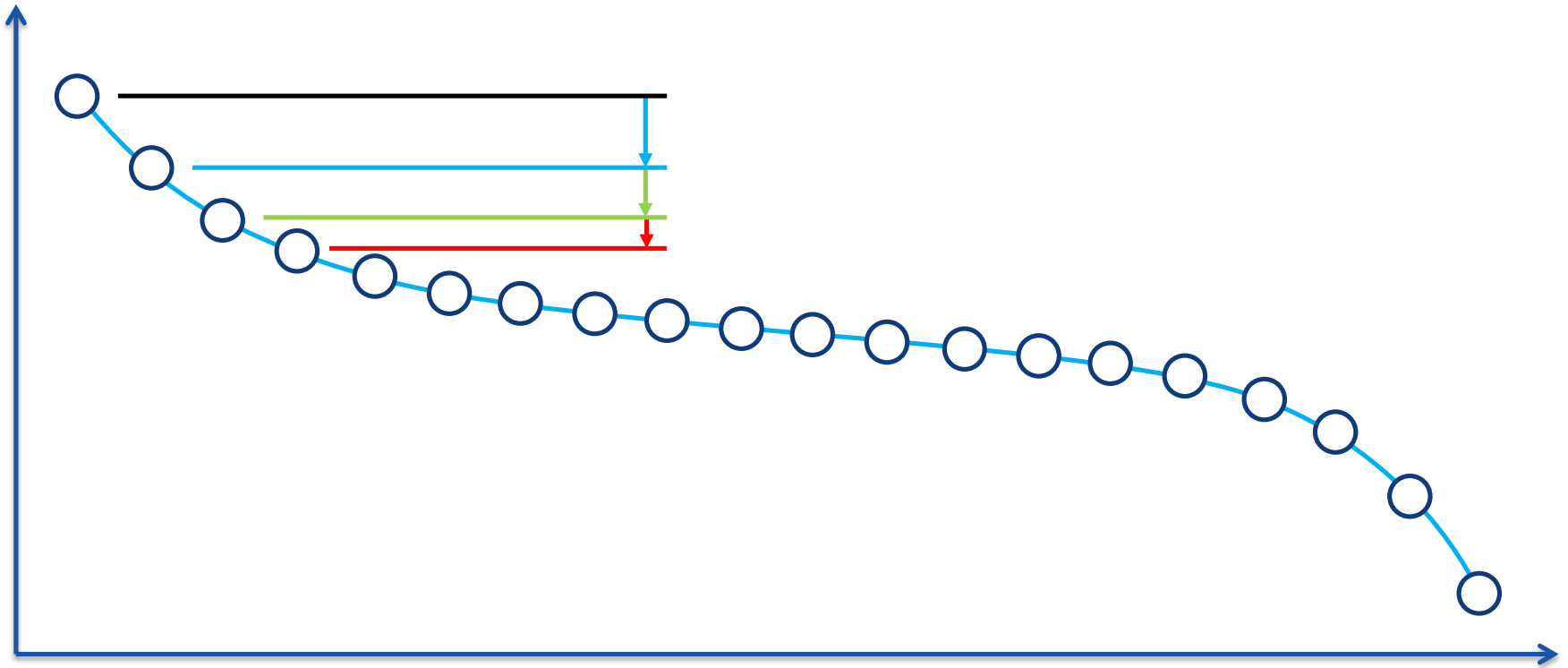
Parameter Values



Parameter Values

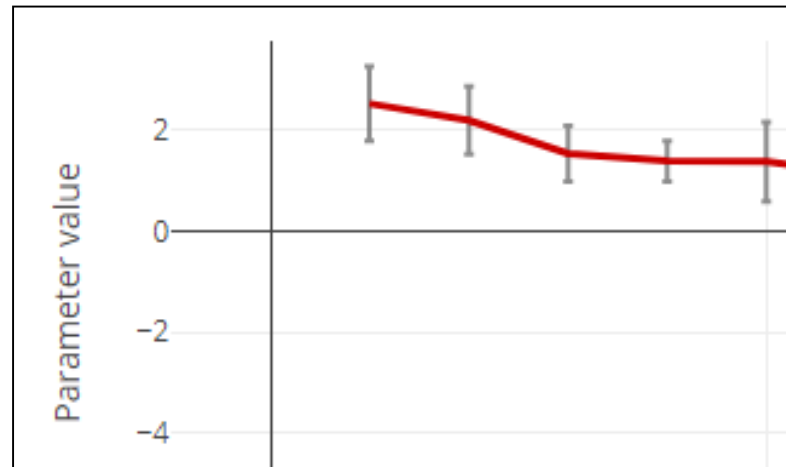
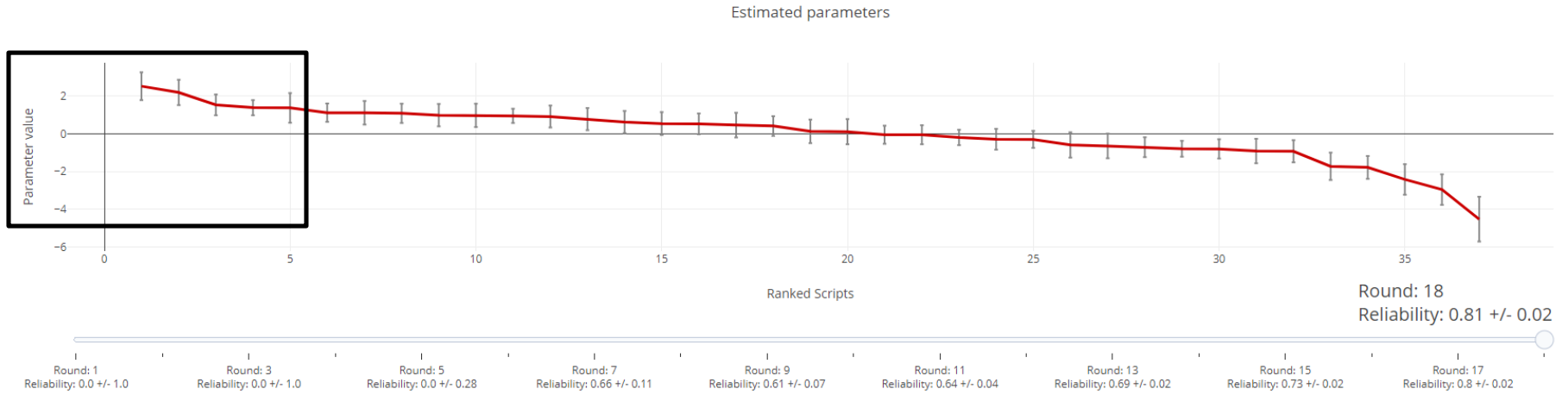


Parameter Values



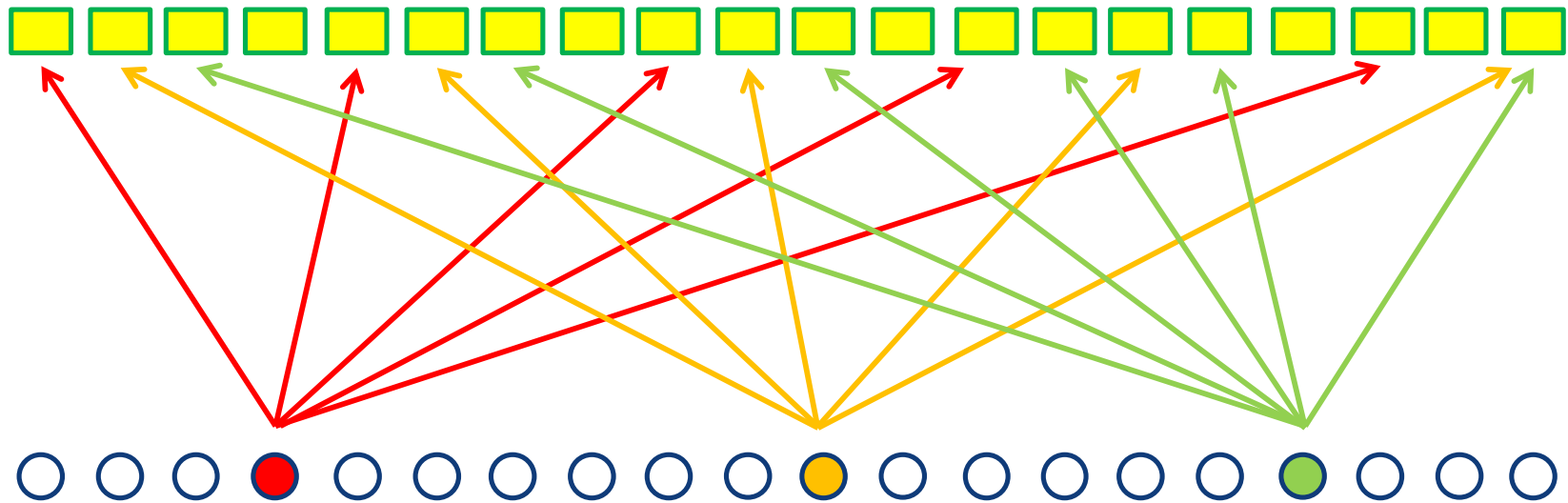


Sample ACJ Rank



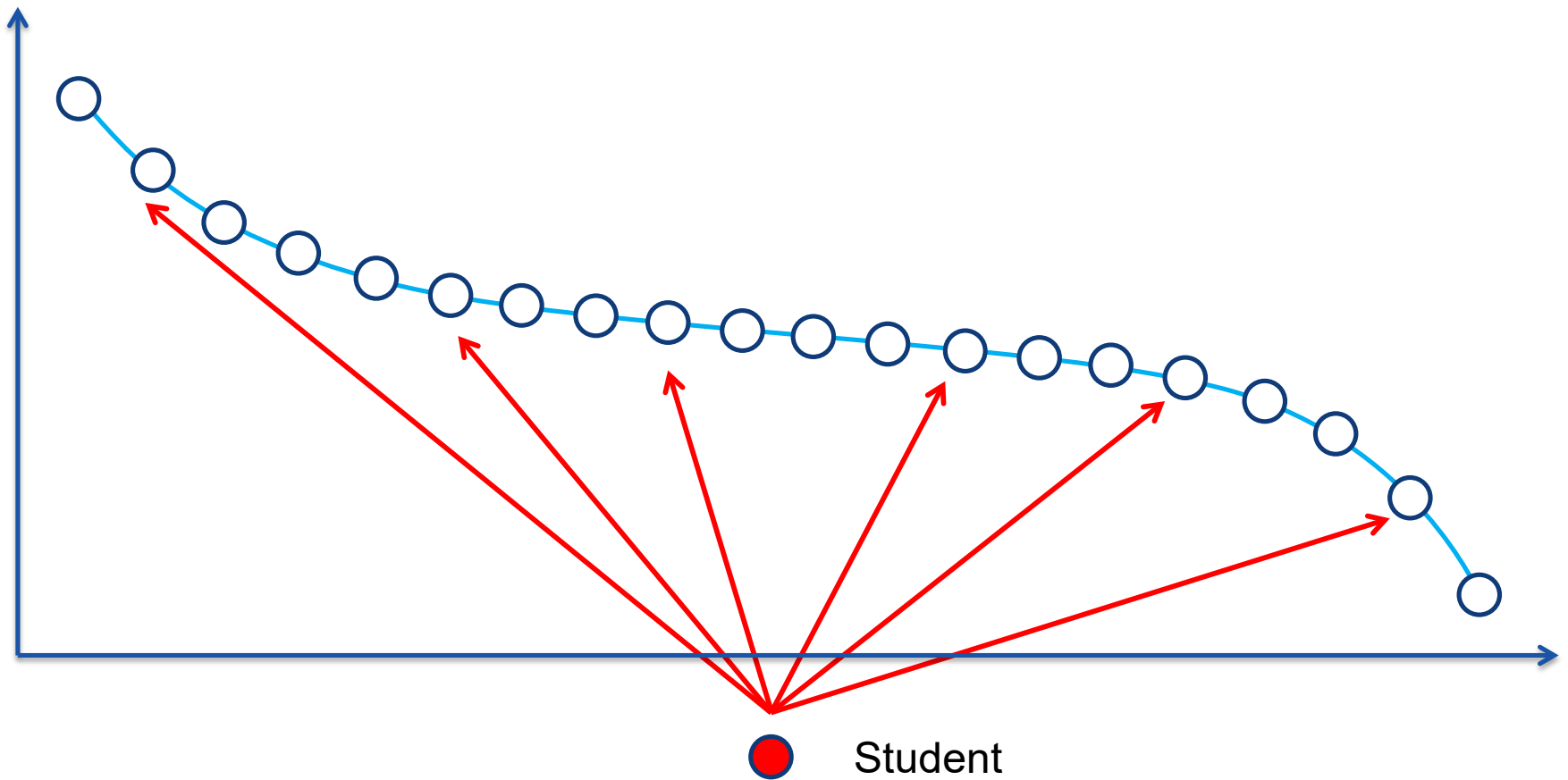
Exposure to a Broad Range of Work

Portfolios

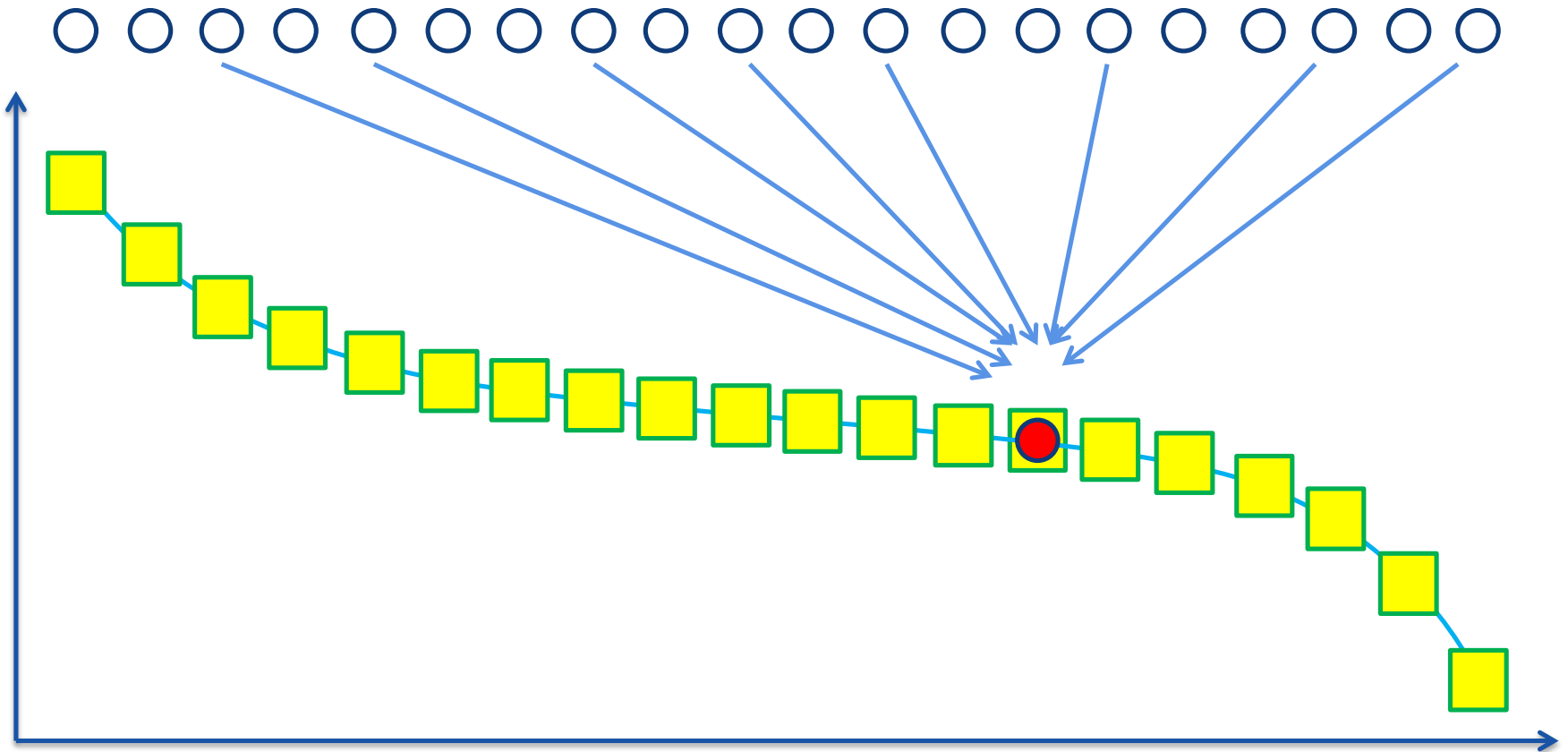


Judges (e.g. Teacher or Student)

Exposure: Understanding Standards



Feedback



Feedback from Multiple Sources



ACJ in the Classroom

Important to note – we have selected four case studies to illustrate how ACJ addresses the 5 principles, however one case study may address a number of principles



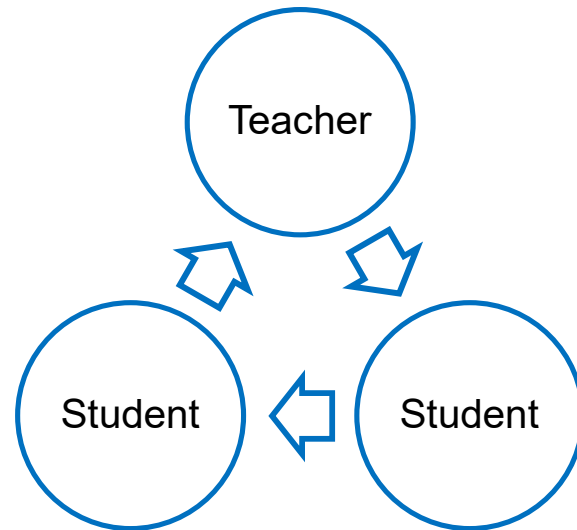
Addressing the 5 key principles

Players in the educational transaction

Teachers Role

Student Role

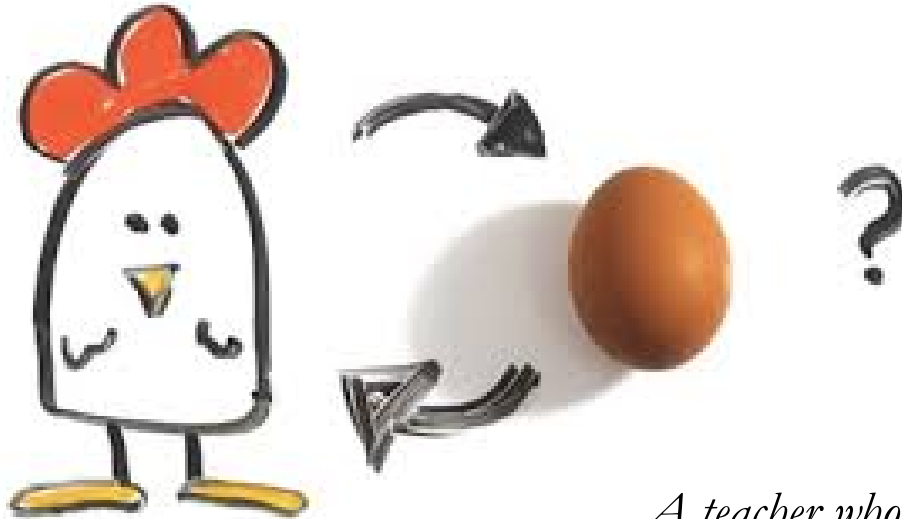
Peer's Role



Must develop evaluative skill and assessment literacy to effectively contribute to this process

Addressing the 5 key principles

Developing Evaluative Skills and Assessment Literacy



A teacher who fails to assess what the students do, cannot decide whether or not she is contributing to or impeding their progress. (L. Lindström, 2006)



Case Study 1

	Where the learner is going	Where the learner is right now	How to get there
Teacher	1. Clarifying, understanding learning intentions and criteria for success	2. Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding	3. Providing feedback that moves learners forward
Peer	Understanding and sharing learning intentions and criteria for success	4. Activating students as learning resources for one another	
Learner	Understanding learning intentions and criteria for success	5. Activating students as owners of their own learning	



[1] Focus

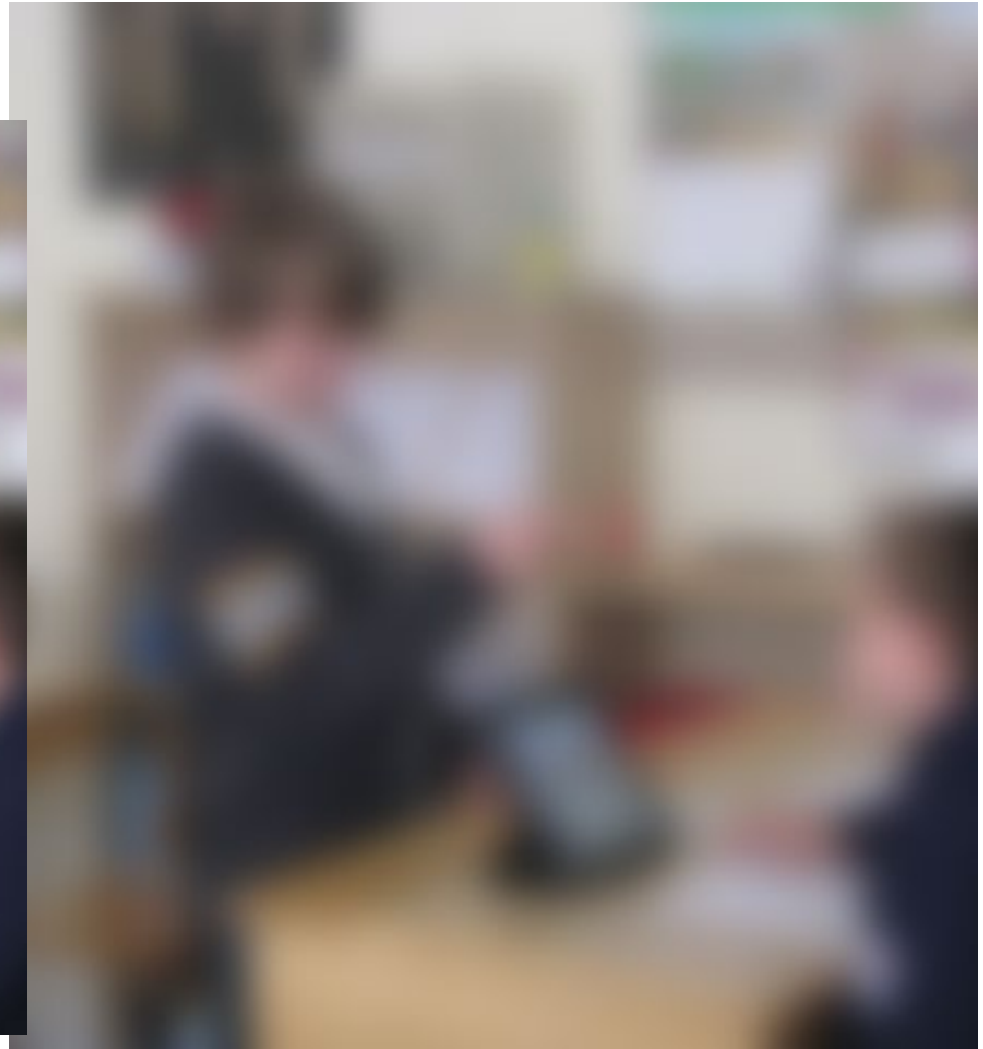
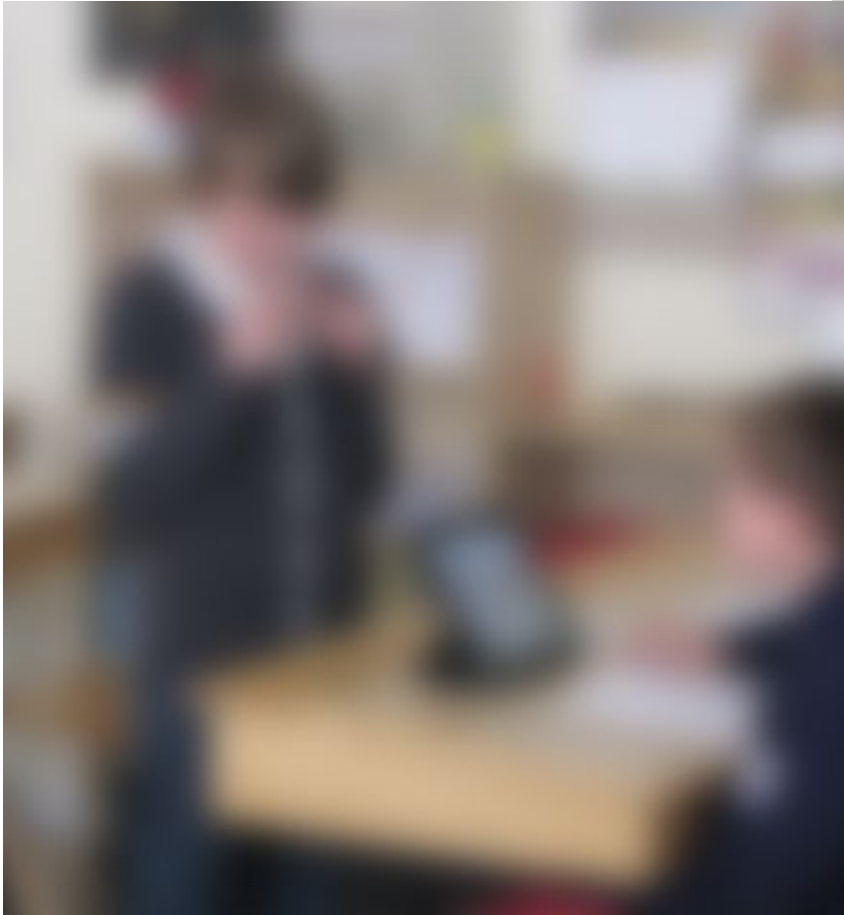
Clarifying learning intentions and criteria for success

Inviting learners to where are we going




[1] Context

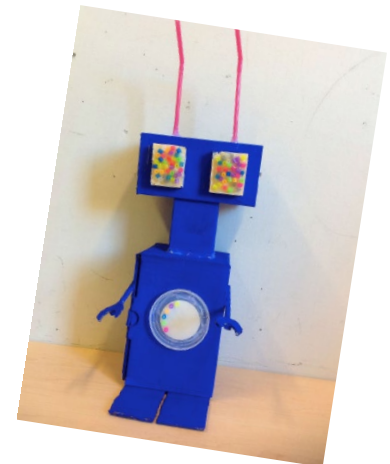
[1] Context



[1] Nature of data

My Work (12 Posts) [switch to "file based"](#)

<p>1 of 12 :: En bättre tes..(0)</p>	<p>2 of 12 :: Uppgift 1(1)</p> <p>ett tesils företag har lite svårt att sälja tesilar till t.ex gamla, de med dåliga handleder ..(10 more words)</p>	<p>3 of 12 :: Uppgift 2(1)</p> <p>det är nästan lite fjäder aktigt och när man öppnar stänger den sig. men ... vissa kan inte ..(24 more words)</p>
<p>4 of 12 :: Uppgift 3(1)</p> <p>en teknisk lösning ganska dyrt men det hjälper man behöver kanske bara trycka på en knapp och ..(12 more words)</p>	<p>5 of 12 :: Uppgift 4(2)</p> 	<p>6 of 12 :: Uppgift 5(2)</p> <p>behöver fixa lite mer med kugg hjulen behöver fixa lite mer med kugg hjulen</p> 
<p>7 of 12 :: Uppgift 6(0)</p>	<p>8 of 12 :: Uppgift 7(2)</p> 	<p>9 of 12 :: Uppgift 7,5 Ko..(0)</p>
<p>10 of 12 :: Uppgift 8(1)</p> 	<p>11 of 12 :: Uppgift 9(3)</p>  	<p>12 of 12 :: Nu är du fär..(0)</p>



[1] Method

- I choose B, because

A or B?

ACJ + Think-aloud-protocols

5(2)

inom att
arial för då
re så a

inom att
arial för då

7,5 Ko..(0

du får..(0



[1] Outcomes (93.2)

What criteria for success were these teachers looking for?

Three strands

Consensus within this group of educated teachers

Whole-

“Red thread” (narrative/story)

but also finish the task

Particular

Highlights importance of

Other – “it felt better”

Valid tasks as well as time and opportunity to learn is needed.

Must not leave pupils in their own unreflective

“doing/ making”, which is fairly common according to Swedish School Inspectorate



[1] Outcome

What did the teachers think of ACJ

1. Fun! A bit insecure in the beginning, but I felt more confident after a short while.
 2. It was amusing/fun and I learnt a lot. It is easier to assess this way. Compare two at a time.
 3. I like the idea that we are more who co-assess
 4. Interesting. Different.
 5. Fun!! But tiny internet connection problems...
-
1. This was really interesting! Took a while to see and understand what I was supposed to look for. Purpose got more explicit on what qualities I were looking for.
 2. Nice to see other than my own students' work
 3. "I found the assessment work through the portal gave me the strength to see students' work in a new way."



Case Study 2

	Where the learner is going	Where the learner is right now	How to get there
Teacher	1. Clarifying, understanding learning intentions and criteria for success	2. Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding	3. Providing feedback that moves learners forward
Peer	Understanding and sharing learning intentions and criteria for success	4. Activating students as learning resources for one another	
Learner	Understanding learning intentions and criteria for success	5. Activating students as owners of their own learning	



[2] Focus – Business Studies

Developing a shared understanding of criteria and standards between teachers and students – Action Research

Importance statement

- The two addresses are correct and in the right order
- The letter includes the Sale of Goods and Supply of Services Act 1980
- The have selected one type of redress for the issue
- The introduction matches the salutation
- General appearance
- Create a convincing argument for the award of redress

Participants

Students	n = 28
Judges (Teachers)	n = 12 (6)
Judgements	n = 20



[2] Interface – Student outputs

about me Messages moderators centres specs judgement log-out A A & B B compare

A (1 OF 1)

22 Meadowbank Hill,
Ratoath,
Co. Meath.

5/11/11
Manager,
Lifestyle Sports,
Blanchardstown,
Dublin 15,
Dear Sir,

On the 1/11/11 I purchased a blue waterproof rainjacket from one of your stores. I enclose a copy of the receipt.

On the 3/11/11 I was walking wearing the rainjacket while it was raining but still got wet.

These goods are not supplied as the described as outlined in the Sale of Goods and Supply of Services Act 1980.

I am very disappointed and would like a refund or a perfectly new properly functioning waterproof rainjacket by the end of the month.

Yours Sincerely,
Ben Ryan

B (1 OF 1)

89 Jamestown park
Meath
Phone: 0860317747
Email: seanmurphy@meathvec.ie

03/11/11
The Manager
Lifestyle sports
Blanchardstown
Dublin 15
Dear Des Clarke

On the 01/11/11 I purchased a blue rain coat from your shop. I enclose a copy of the receipt.

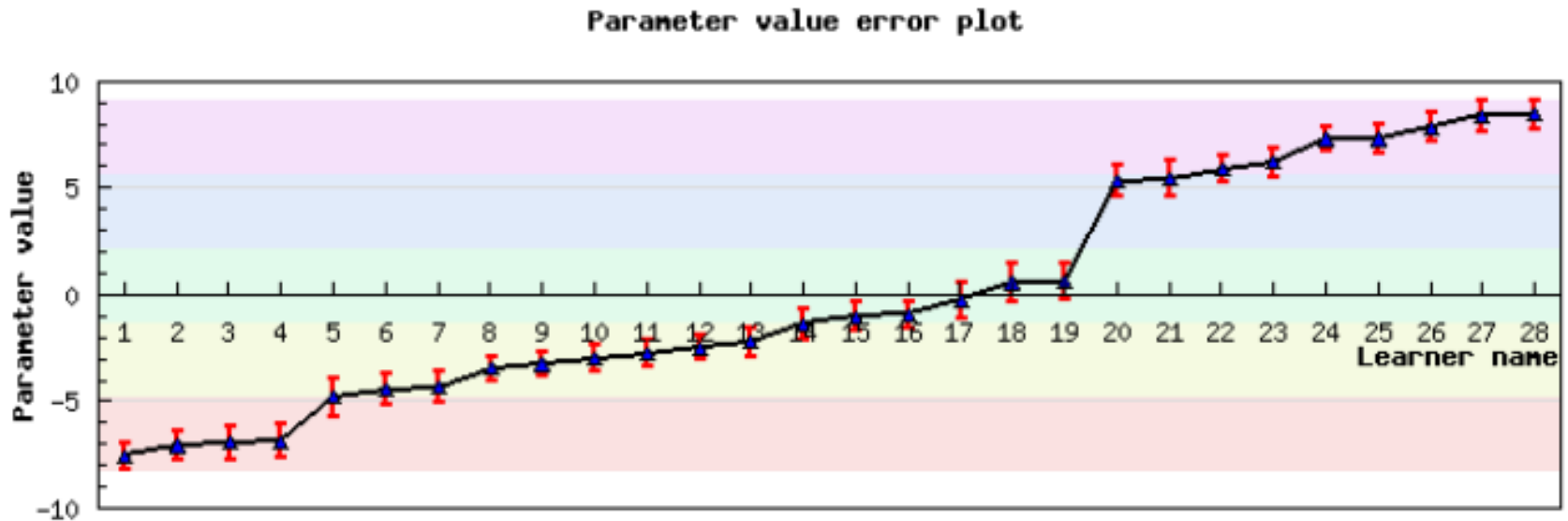
Two days later I was wearing it and I still got soaking wet.

This rain jacket is not of merchantable quality as stated in the sales of goods and supply of services act.

I am obviously very disappointed with this and I demand either a refund , a repair , you replace it or you give me a credit note for that exact amount. If I do not receive one of these things I will be forced to get the national consumer agency involved.

Sincerely Ben Ryan

[2] Judging Outcome



Reliability coefficient = 0.982

[2] Overall Outcomes

- Discourse on qualities
- Classroom Integration
- Validity of ACJ (0.982)
- Evidence of Learning
- Confidence in decision making
- Shared responsibility



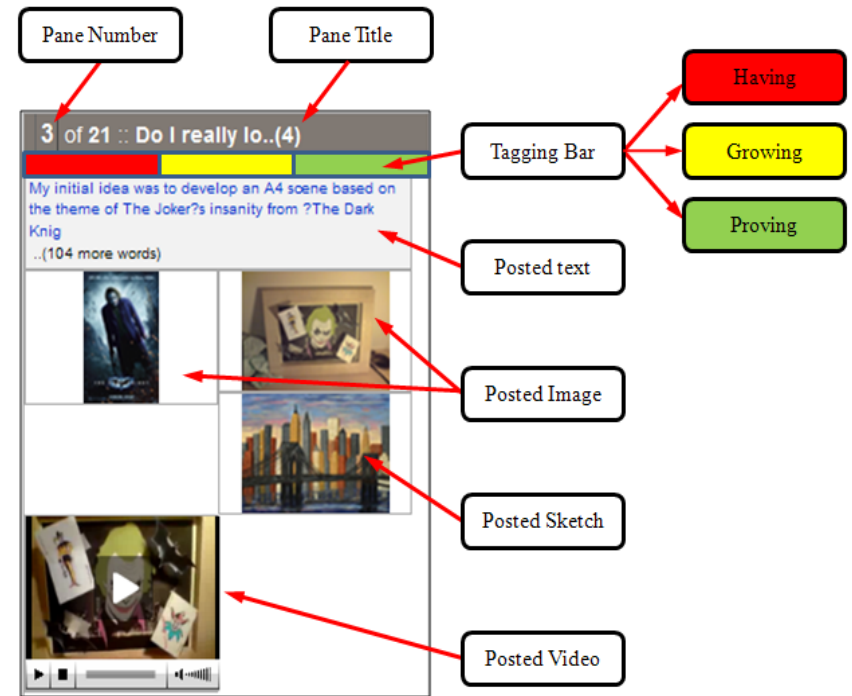
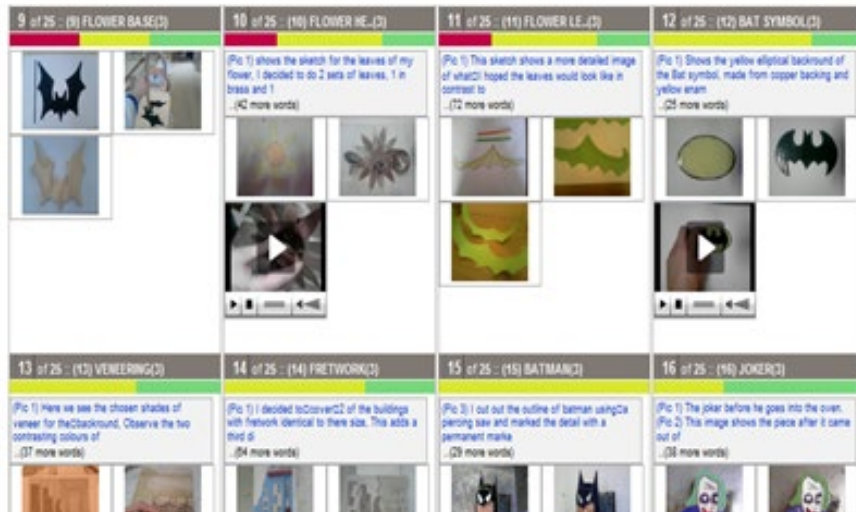


Case Study 3

	Where the learner is going	Where the learner is right now	How to get there
Teacher	1. Clarifying, understanding learning intentions and criteria for success	2. Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding	3. Providing feedback that moves learners forward
Peer	Understanding and sharing learning intentions and criteria for success	4. Activating students as learning resources for one another	
Learner	Understanding learning intentions and criteria for success	5. Activating students as owners of their own learning	

[3] Focus

Synchronous and Asynchronous
 Authentic capture
 Review and reflection
 Communication Importance

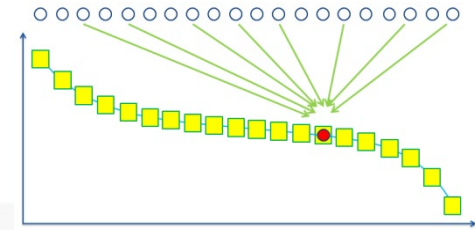


Yr. 1 ITTE Students

Capability perspective ... developing a shared understanding of evidence of learning



[3] Feedback



Portfolio Judgement History

Judgement Time	Judge	Link	Paramter	Compared to	Paramter	Notes	Winner?
18th May '10 23:40	JOHN	JASON I like this idea - the helmet as the base of the flower is class - The detail in the etching for the bikes is also outstanding	7.40563	WILLIAM amazing - think the design of this project is outstanding - and the manufacture even better.	5.32624	Portfolio a is a great project but portfolio b is fantastic	NO
17th May '10 23:16	JOHN	JASON I like this idea - the helmet as the base of the flower is class - The detail in the etching for the bikes is also outstanding	5.74115	EMMET really like this project - great idea - flower well linked with scene - like the form of the flower "staggering drunk" - like shape of car & very realistic	2.45572	I feel the flower links with the scene a bit more and this is what swings it.	NO
17th May '10 21:38	EMMET	JASON very detailed and exact account of each part of the design and why each part was chosen!!	5.74115	DANIEL good account given but could have done with better links to the design. good use of media and pictures to graphically show where ideas were comin from.	1.92673	thought the information and media presented was more creative and exact towards each process.	YES
17th May '10 21:34	EMMET	JASON very detailed and exact account of each part of the design and why each part was chosen!!	1	DECLAI I thought this portfolio was quite good and gave a good explanation of the reasons behind the design whilst linking it well to rural Ireland.	1	while both portfolios were v good I felt portfolio b was more detailed and explained the emotion and idea that bit better even if it did do so in a slightly prolonged way	YES
17th May '10 20:44	DANIEL	JASON Extremely good portfolio. Colour, tags, good story and very good use of pictures. the evolution in the project very clear.	5.74115	WILLIAM Another good portfolio. Good use of colour, tags, pictures and a interesting story. Use of pics very good.	7.20114	Port A is pretty untouchable. It has so much effort and detail which I greatly appreciate. Port B was good but unformatate it had to come against this port A.	YES
17th May '10 20:35	DANIEL	JASON Extremely good portfolio. Colour, tags, good story and very good use of pictures. the evolution in the project very clear.	5.74115	SHANE Very very good portfolio. It was colourful, full of pictures, tagged well and had a story that had proper meaning to the student.	4.80987	The hardest comparison I had to make yet!! Both were absolutely top notch but port B just edges it as theres slightly more effort in it to show the marker the evolution of the project. Port A would probably beat most other portfolios easily.	YES
16th May '10 21:49	MICHAEL	JASON joey dunlop	7.17119	COLM fallen flower	1.85799	finished produced is better	YES
16th May '10 21:44	MICHAEL	JASON joey dunlop	7.17119	DAMIEN ac dc	7.17119	again two very close hard judgement to make	NO
15th May '10 11:06	MICHAEL	JASON	1	DAVIC	0.2	had more visuals audios and writing that described the project best. also the theme was better	YES
14th May '10 15:17	DAVID JOSEPH	JASON Lots of content, very clear aims and direction	1	CONALL NOLAN(3378) ideas were consistant eg travelling in the car to wexford	0.333333		YES
14th May '10 14:54	SHANE	JASON very good	1	EMMA not bad but not quite as good	0.333333	lot of detail and way more content than B	YES
14th May '10 11:21	CORMAC	JASON very thorough goes through having growing and proving effectly	1	DANIEL has little having	-1	port a done a better job in showing their different stages of design	YES
13th May '10 14:36	EOIN	JASON i think the creativity was very good especially because of the way the helmet was made out of copper.	0	COLM	0	i think the thought into the manufacture of a was better than b	YES
13th May '10 12:45	JOHN	JASON overall well presented. alot of work and therefore better than portfolio "A"	0	DARAGH The ideas are good but i feel the overall story wasnt explained as well as portfolio "B"	0	seemed to be so much work done in the presentation to justify a win	YES



[3] Outcomes

“Having completed the ACJ assessment I am more confident in my ability to think for myself and produce work to a fairly high level of workmanship that is also creative and interesting.” student 1

“I thought that by thinking outside the box too much in my design, the concept would be lost on people. Therefore I kept the theme stark but simply communicated. If I was doing the project again and was aware of the high level of creativity in the class group that I saw in the ACJ session, I would increase the level of abstract creativity in my project.” student 2



Case Study 4

	Where the learner is going	Where the learner is right now	How to get there
Teacher	1. Clarifying, understanding learning intentions and criteria for success	2. Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding	3. Providing feedback that moves learners forward
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Learner	Understanding learning intentions and criteria for success	5. Activating students as owners of their own learning	



[4] Focus

The animal kingdom demonstrates many wonderful ways in which animals evolve and adapt to their environment. Observing animals in these environments often reveals how this adaptation has not just happened by chance.

Design a bird feeder to explore the intelligence of birds



[4] Context

1. What are your first thoughts and ideas?

What is important for this project design?

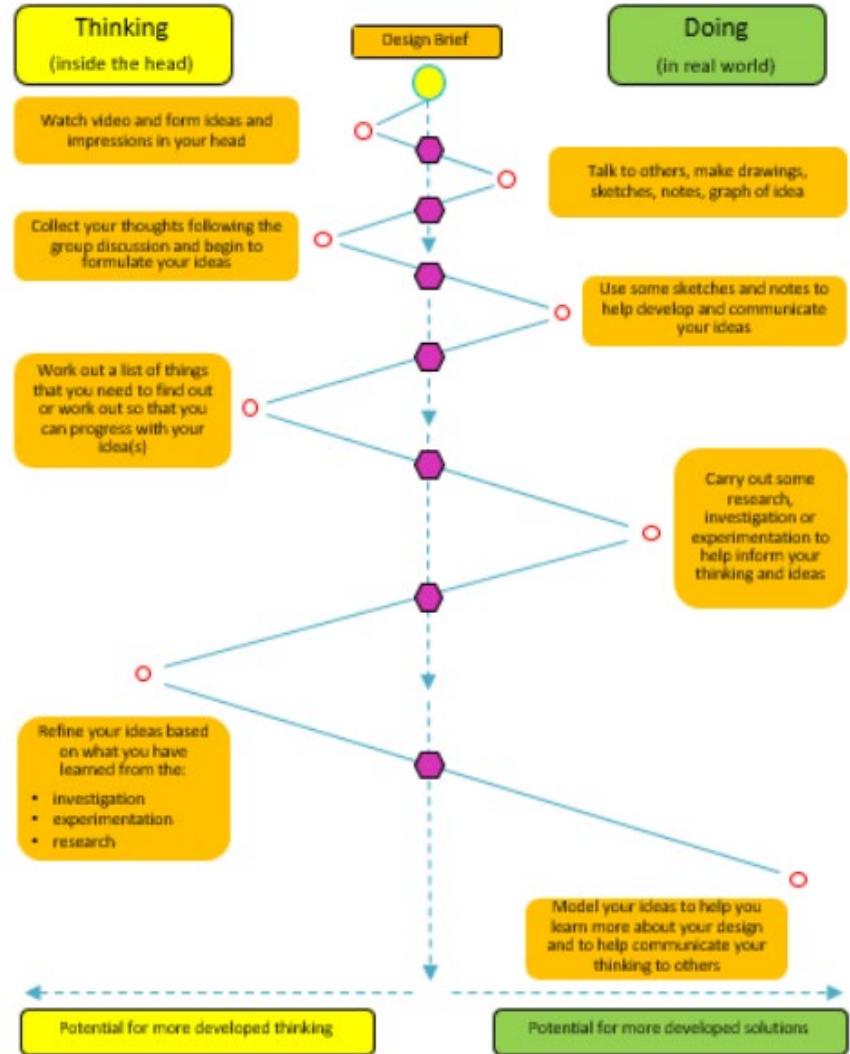
4. Make a list of things that you think you need to find out...

How will you do this?

10. Model your ideas to help

What did you learn from modelling your design?

Interaction of Mind and Hand

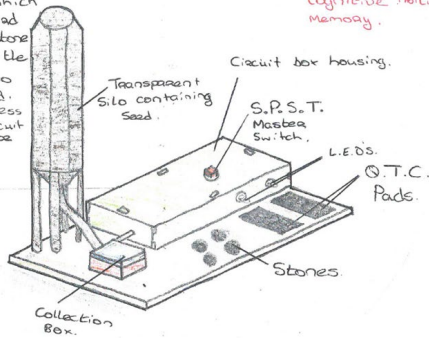


[4] Nature of data

3. Show us your ideas. You can use notes, sketches etc...

An led lights up over a corresponding Q.T.C. Pad. The LED denotes which Q.T.C. Pad the bird has to put a stone on to open the collection box to access the seed. After they access the seed the circuit will not work for 20 minutes after.

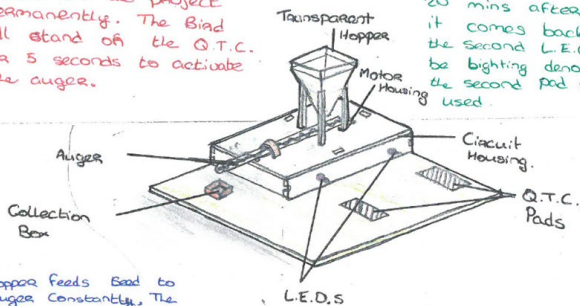
This idea will test birds sense of time, cognitive Ability and Memory.



6. Use this space to show where your idea is now...

Same idea as the previous sketch. Instead of leaving stones on the project permanently. The bird will stand on the Q.T.C. for 5 seconds to activate the auger.

After circuit has been activated it will not work for 20 mins after. When it comes back online the second L.E.O will be blighting denoting that the second pad should be used.

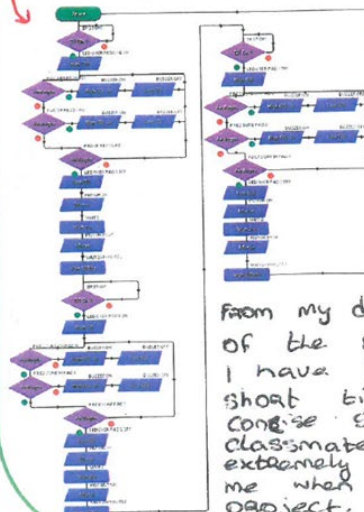


Hopper feeds seed to auger constantly. The auger will churn seed into the collection box, when circuit activates.

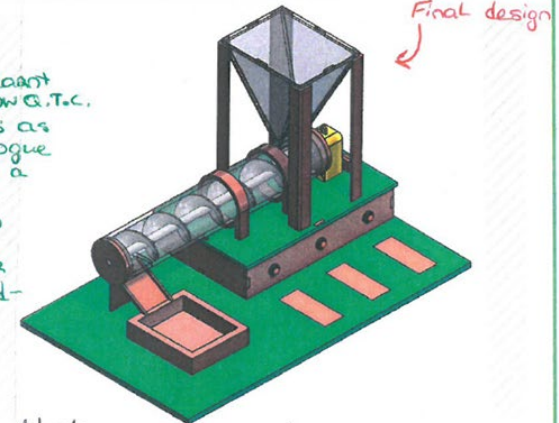
10. Model your ideas to help you find out more about your design.

Functioning Programme

What did you learn from modelling your



I also learnt about how Q.T.C. functions as an analogue input in a circuit. And how to build an auger on solid-works.



Final design

From my designing of the project

I have learned that working in a short time frame leads to a speedy, concise solution. I believe that receiving classmate feedback was extremely beneficial to me when designing this project. I learned that birds are more intelligent than I first assumed.

Record a short video presenting your design



[4] Outcomes

- Voice and video files are most important to understand one another's 'thinking'
- **Feedback perspective - more comfortable on an online platform due to the level of anonymity afforded to them as an adjudicator.**
- Summative adjudicated
 - Frustrated in seeing peer feedback once the learning activity (2 weeks) had been completed
 - More authentic feedback provided
 - Greater understanding of how they performed relative to their peers
- Students knew where they wanted 'to go' next



Future Work ...

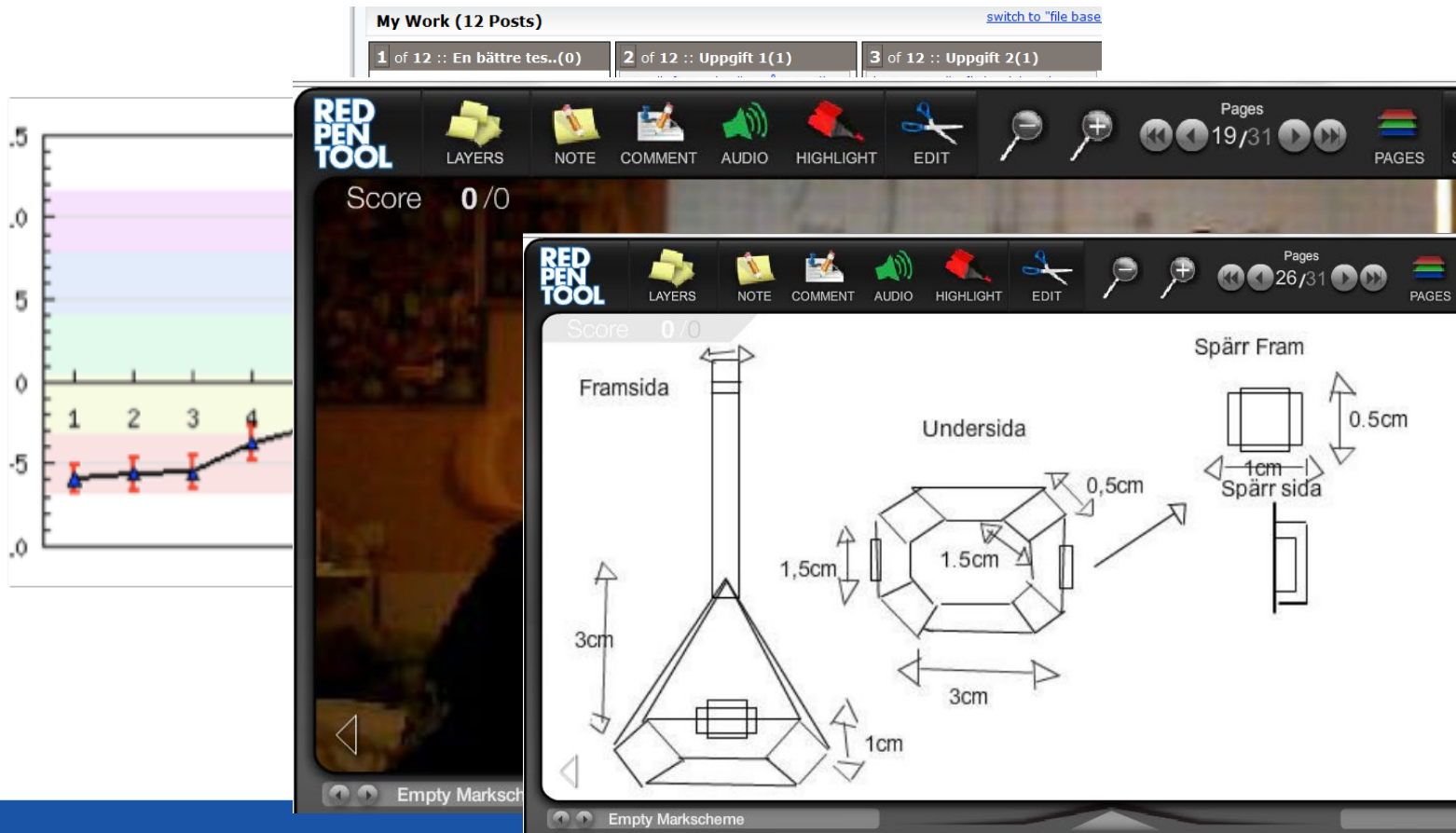
Future work

	Where the learner is going	Where the learner is right now	How to get there
Teacher	1. Clarifying, understanding learning intentions and criteria for success	2. Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding	3. Providing feedback that moves learners forward
Peer		4. Activating students as learning resources for one another	
Learner		5. Activating students as owners of their own learning	

Building sample banks of exemplars

My Work (12 Posts) [switch to "file base"](#)

1 of 12 :: En bättre tes..(0) 2 of 12 :: Uppgift 1(1) 3 of 12 :: Uppgift 2(1)



The image displays a digital workspace for building sample banks of exemplars. It features a graph on the left, a technical drawing in the center, and two instances of the RED PEN TOOL interface. The graph shows a line with data points and error bars. The technical drawing shows a 3D object with dimensions and labels. The RED PEN TOOL interface includes a toolbar with icons for LAYERS, NOTE, COMMENT, AUDIO, HIGHLIGHT, and EDIT, and a score display.

Graph Data:

Point	Y-value
1	-6.0
2	-6.0
3	-6.0
4	-4.0

Technical Drawing Dimensions:

- Framsida: 3cm (height), 1cm (width)
- Undersida: 1.5cm (width), 3cm (length), 0.5cm (height)
- Spärr Fram: 1cm (width), 0.5cm (height)
- Spärr sida: 1cm (width)

RED PEN TOOL Interface:

- Score: 0/0
- Pages: 19/31 (top), 26/31 (bottom)
- Toolbar: LAYERS, NOTE, COMMENT, AUDIO, HIGHLIGHT, EDIT



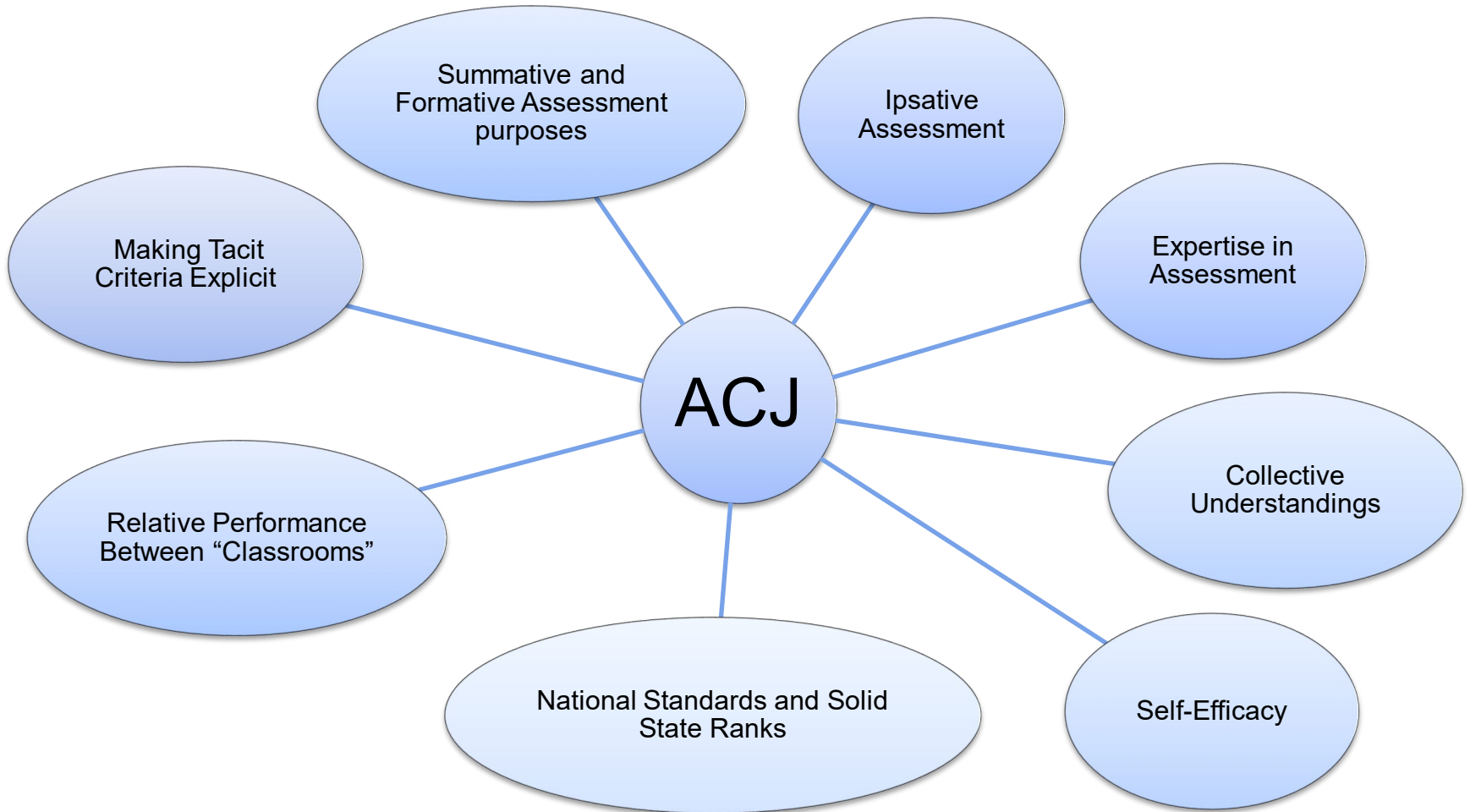
Providing affordance w E-portfolios & Comparative judgement

- Data is collected during “ordinary” lesson activities
- Students collect evidence of learning (validity & teachers work load)
- Decision driven data collection instead of data driven decision making
- Reliable results
- Inviting other professionals to your classroom and you get to visit theirs “without too much trouble” (cloud-based)

- *The power of the collective & profession*
- *ICT as servant instead of driver*



Future Possibilities and Agendas



Conclusion



TEXT



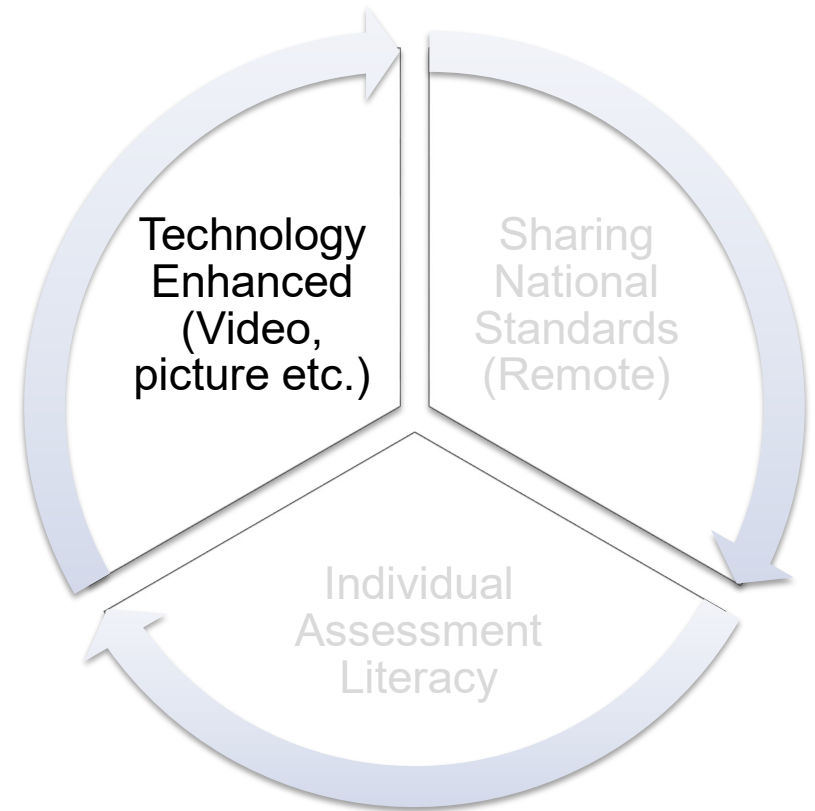
IMAGE



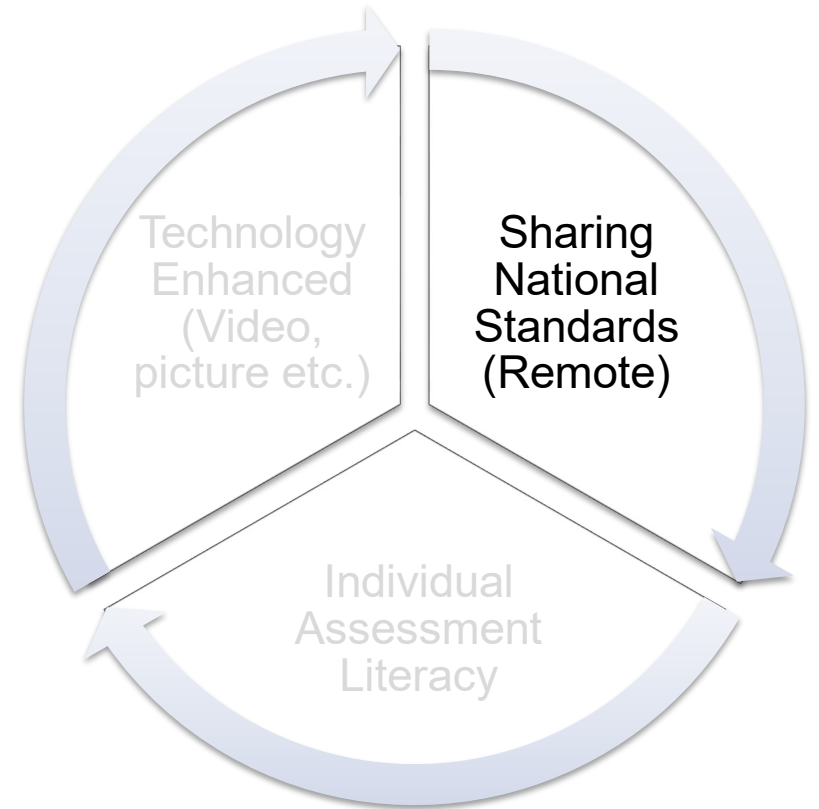
AUDIO



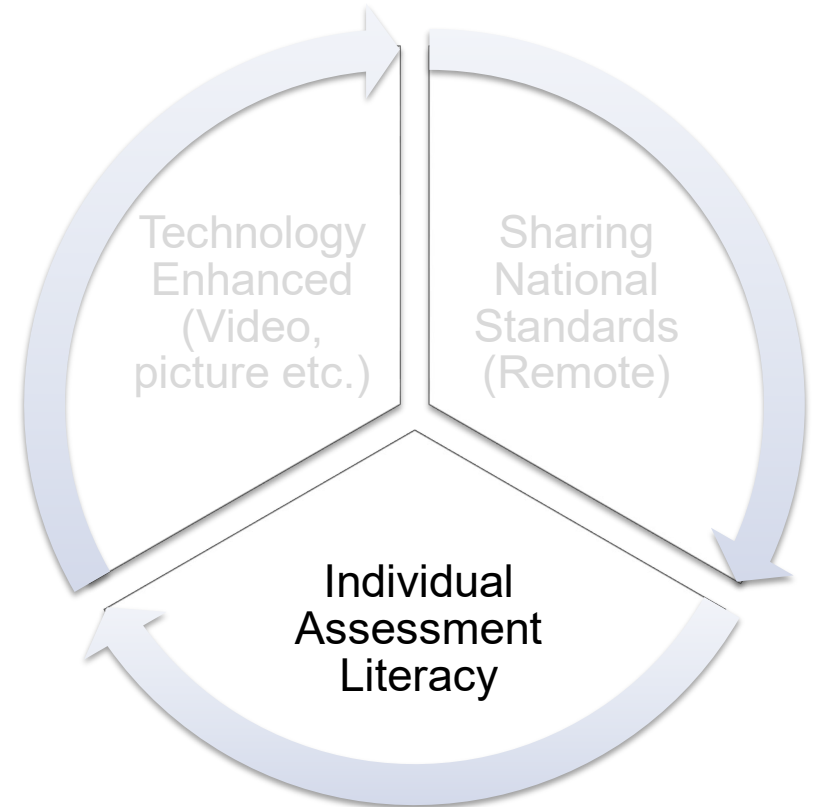
VIDEO



Conclusion



Conclusion





Thank you! To be continued

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How to log in!

You can access the login page at the following link:

<https://api.compareassess.com/>

Log in: acjsessions+(number)@gmail.com

Password: Iterg20!7