



Progress Testing in the VetRepos project

Requirements, Quality Control and Status

Presented by:

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VetRepos 2021-2023

Aims:

- A validated test item databank for progress testing
 - EU / EAEVE veterinary subject areas
 - Expected ‘Day One skills‘ of European vet-students at graduation.
- A quality assurance system for assessment and approval of test items
- An online course on „How to write good test items“ and Youtube for students about progress testing
- Introduction of collaborative progress testing to Veterinary Education Establishments in Europe



VetRepos Blueprinting

Content

Test subscales	EAEVE Subject areas	Competence level	Items		
Basic Sciences	17 subject areas: Anatomy... Animal Nutrition	<i>Day 1 graduation level</i>	50%		
			10 subject areas: Medicine... ... Propaedeutics	20%	
				12 subject areas: Medicine .. Propadeutics Herd health ...	20%
					5 subject areas: Veterinary legislation Food technology
Companion Animal & Equine Clinical Sciences					
Production Animal Clinical Sciences					
Food Safety & Quality, Public Health and One Health Concepts					

QA: Item formats

Classical MCQ

What?

- -----
- -----
- -----
- -----

MC matrix

Which?	Yes	No	Maybe
• -----	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• -----	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• -----	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• -----	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

MC Cloze

Veterinary [**anatomy**, physiology, genetics, chemistry] is the study of the structures of the [human, **domestic animal**, parasite, protooan] body.

Polytomous formats:

More questions to same case / vignette

Numeric item

2 + 5 = ?

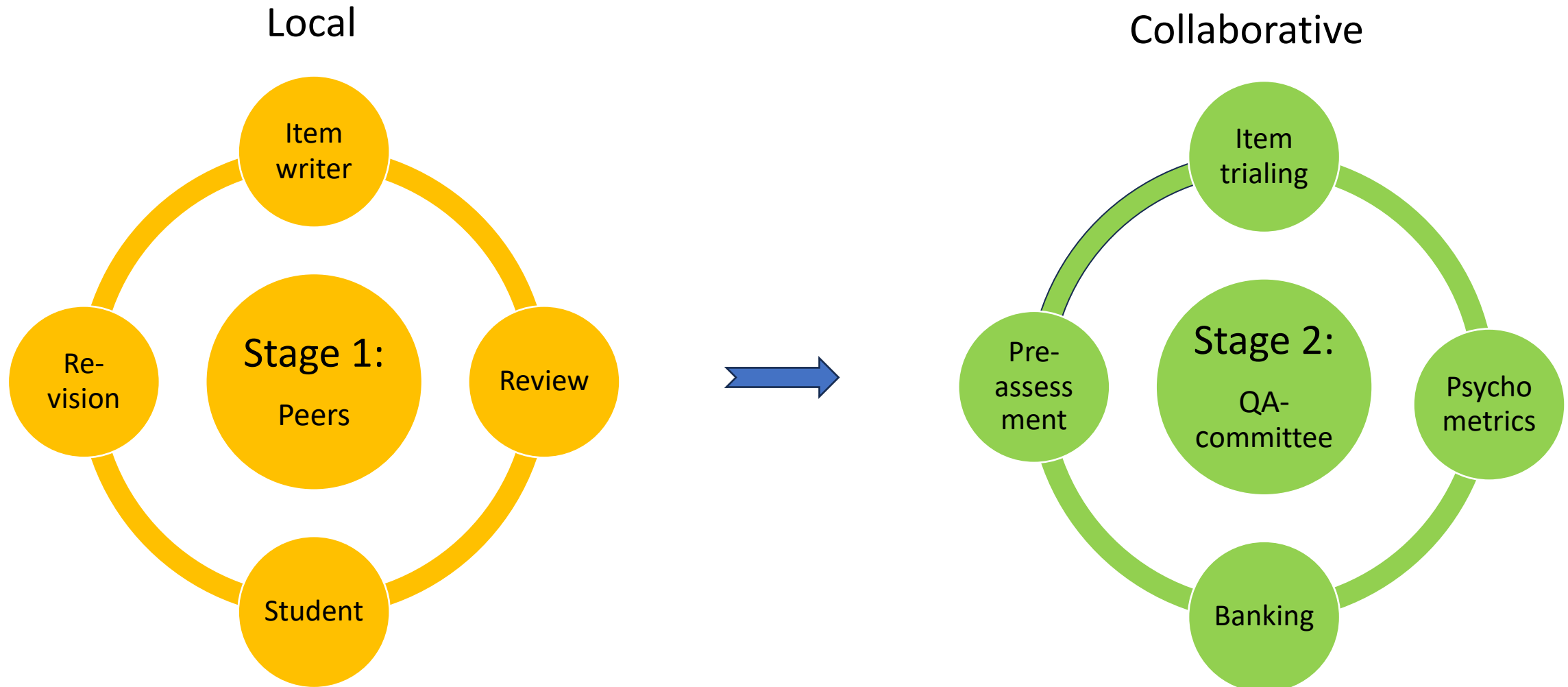
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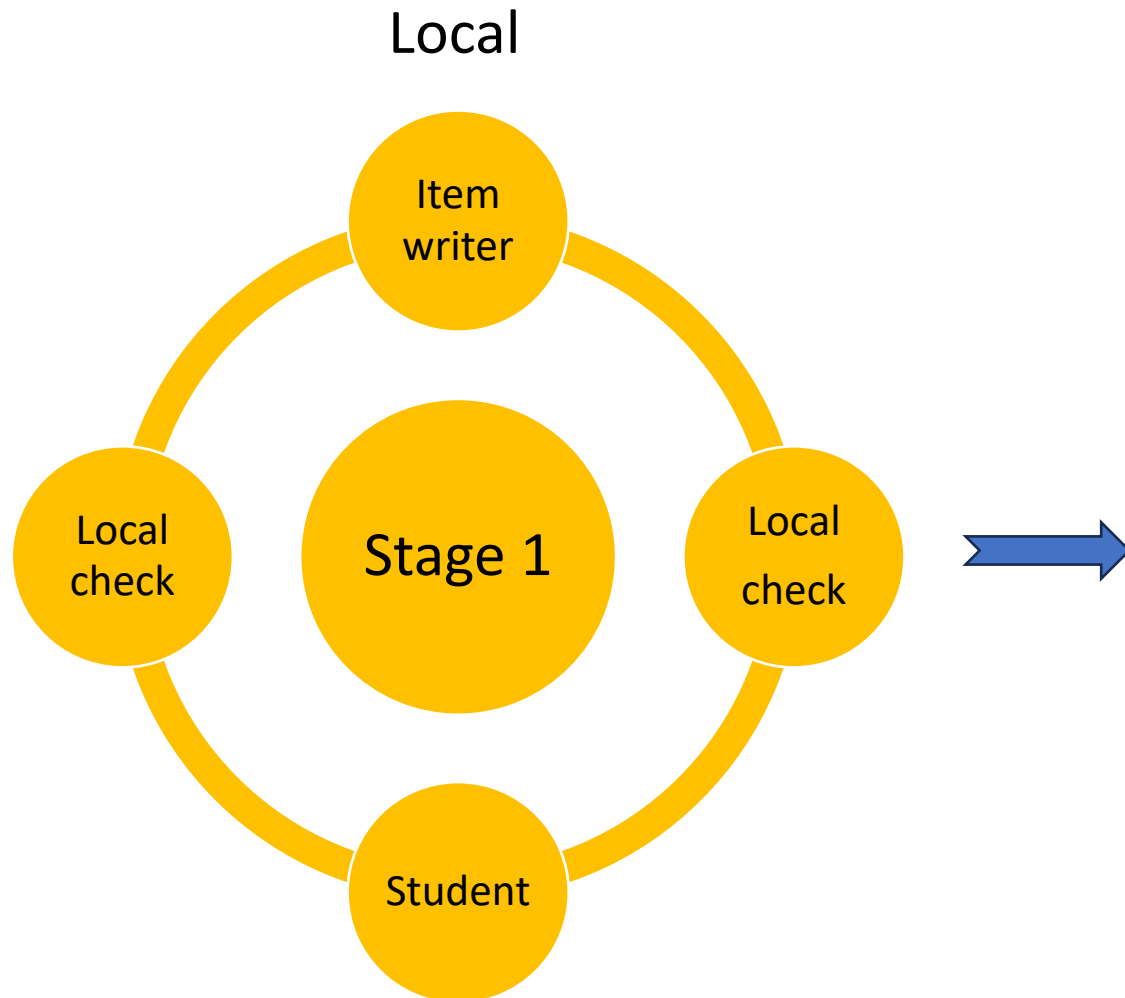
Quality control of items and responses

QA from Item Writing to Item Banking





Item Writing and Peer Reviewing

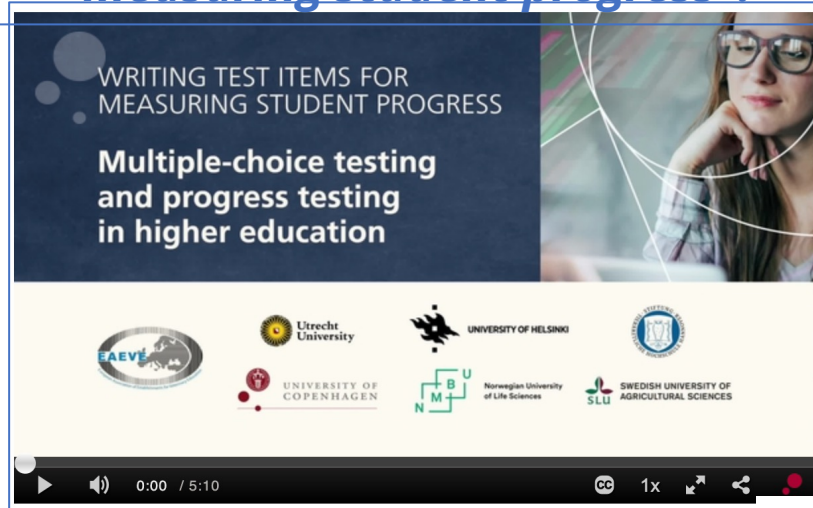


- Targetting Day 1 (graduation) competence level within EAEVE subject areas
- "Difficult" as well as "easy" questions
- Unambiguous and short text in simple, easy to read common English
- Response categories easy to overview - complexity in vignette or question.

Teaching / learning materials

Small private online course (SPOC) on:

"How to write test items for measuring student progress".



<https://absalon.ku.dk/courses/67148>



For teachers and educators

YouTube video on:

""Progress testing in Veterinary Education"



Progress Testing
in
Veterinary Education



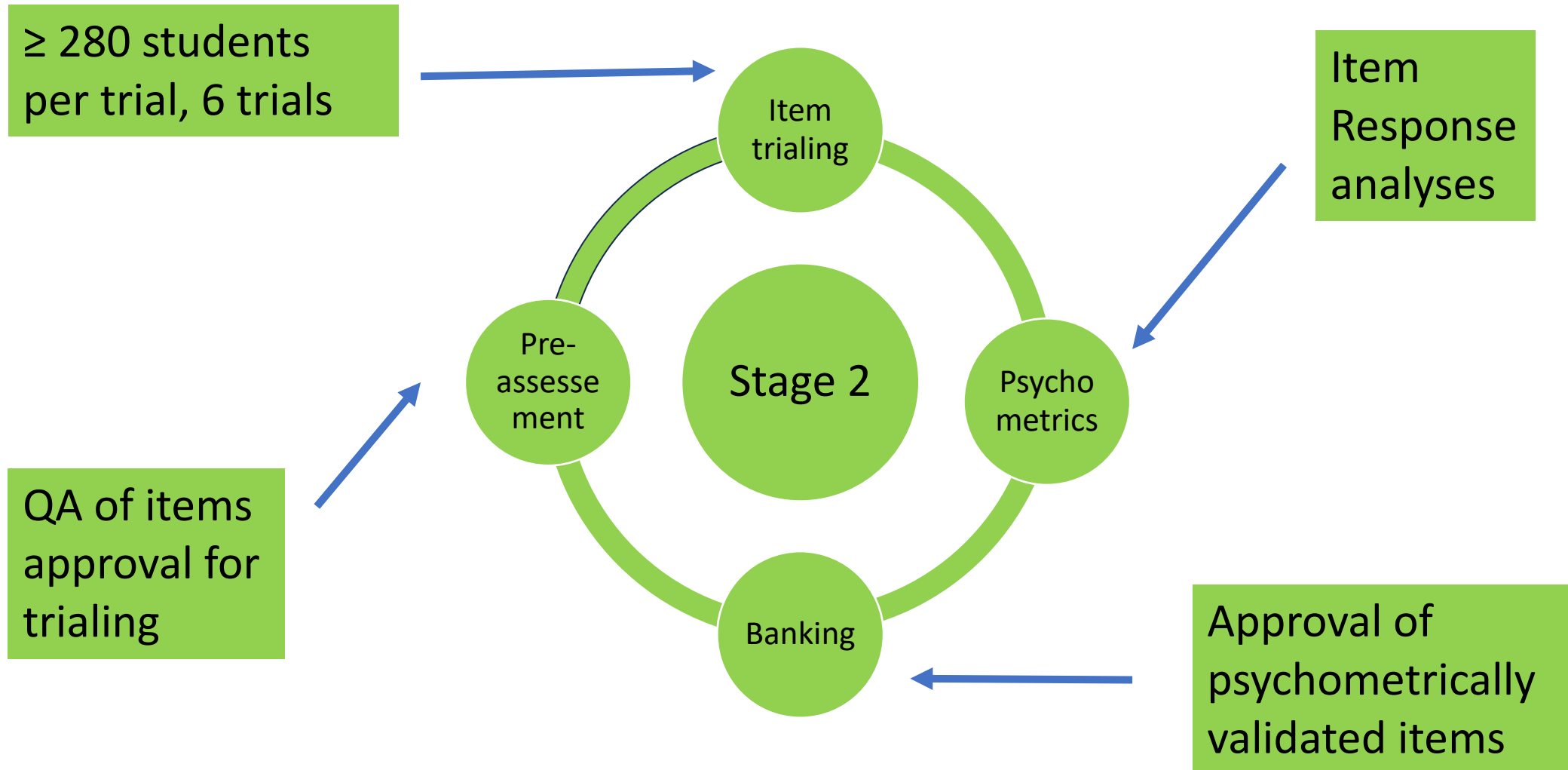
https://www.youtube.com/watch?v=T-fXxW2_cnY



For students



Item trialing and analyses





Preliminary results



Items has been tested across student cohortes and VEEs

(data per June 1st, 2023)

Test trial	No. complete responses
1st trial	429
2nd trial	239
3rd trial	297
4th trial	421
5th trial	286
6th trial	n/a

Student cohort	No responses (trial 1-4)
1st yr.	250
2nd yr.	296
3rd yr.	273
4th yr.	246
5th yr.	181
6th yr.	140
Total	1386

Items have been created, pre-assessed, tested, validated and banked *(status pr. May 1st, 2023)*

	Total	Subscale 1*	Subscale 2*	Subscale 3*	Subscale 4*
Submitted items (questions)	1809	1186	470	528	348
Accepted for trialing (Trials 1-6)	1136	560	193	247	166
Banked (Trials 1-4)	610	348	125	94	110
Anchor items	28	10	9	9	9

Each question in Matrix and Cloze items counts as "one test items"

* Items covering more than one subscale are included as an item in each subscale

1/3 of submitted items were not approved by peers or by QA-committee at pre-assessment



Common item flaws

- Too long, complex response categories
- Unplausible distractors
- Content not common European veterinary Day 1 knowledge

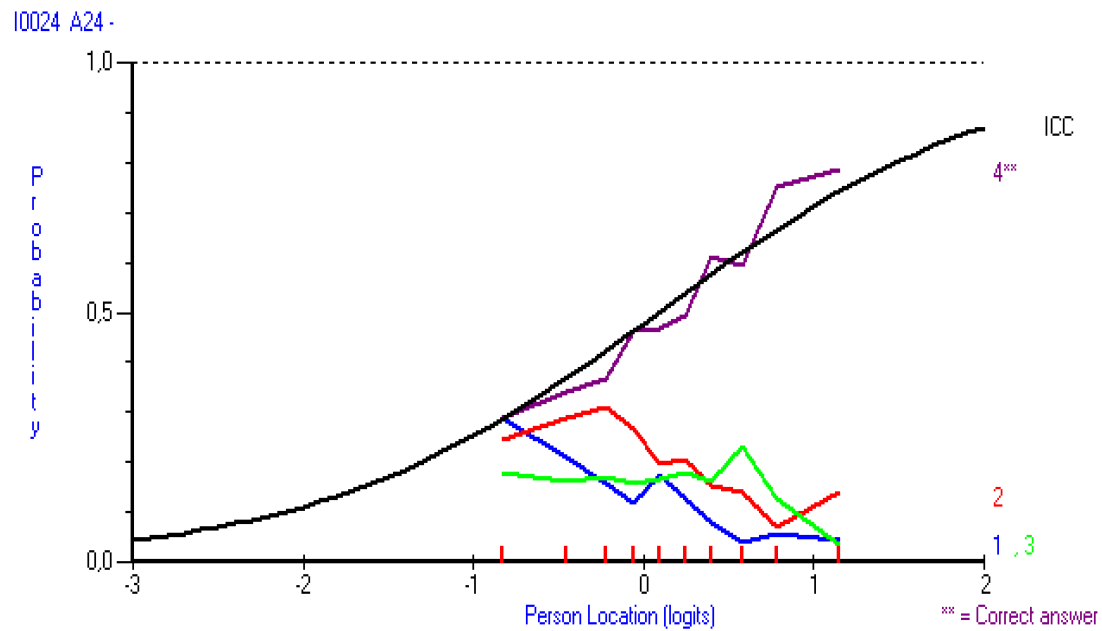
A common veterinary item databank has been established

(data per June 1st, 2023)

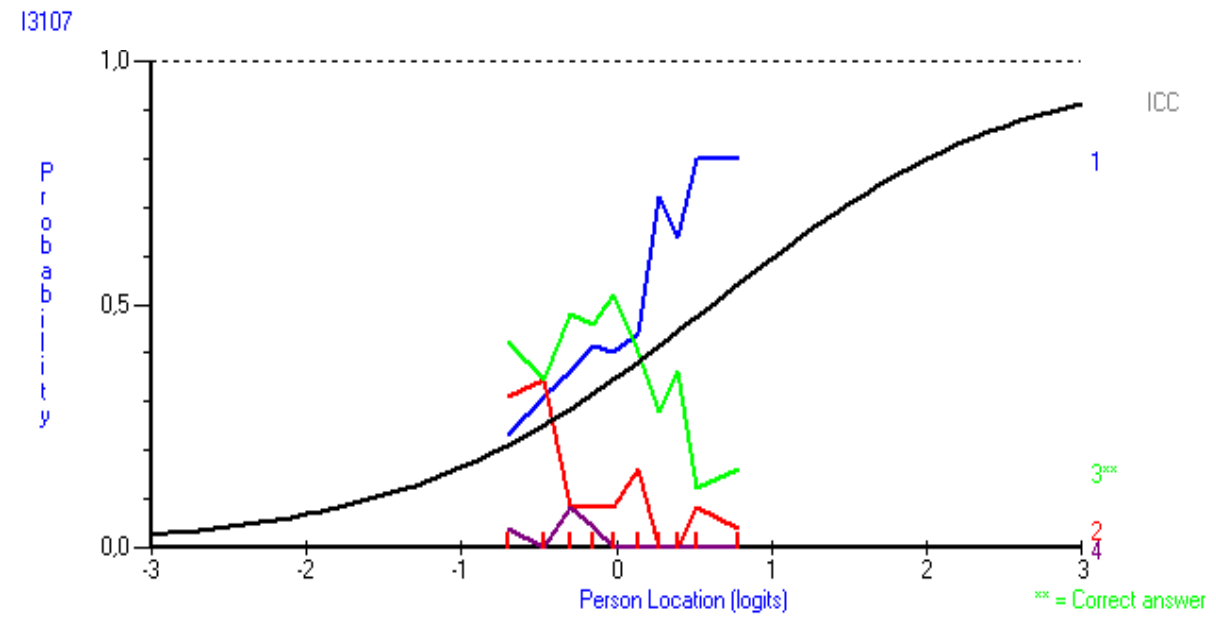
	Items tested	Items banked	Discarded after psychometric analysis
1st trial	153	123	20 %
2nd trial	144	123	15%
3rd trial	195	176	10 %
4th trial	221	188	15 %
Subtotal	703	610	14 %
5th trial	98	n/a (≈80?)	n/a
6th trial	183	n/a (≈170?)	n/a
Total - all tests	949	n/a (≈860?)	n/a

Distractor analyses

Valid, banked item



Discarded item





Conclusion

- 👍 QA-framework for pre-assessment of items
- 👍 Items tested and validated across student cohorts at 6 VEEs
- 👍 Common item databank for progress testing targeting EAEVE Day 1 competence level
- 👍 Educational videos on progress testing and item writing targeting teachers (the SPOC) and students (Youtube)
- 👍 **VetRepos items measures student progress across VEEs**



Next step

Invite VEEs to join collaboration!

On behalf of the VetRepos partners:

Charles M. Press, NMBU

Johanna Penell, SLU

Antti Iivanainen, HU

Elisabeth Schaper, TiHo

Theo van Haeften, UU

Peter Holm, UCPH

Thank you for listening