



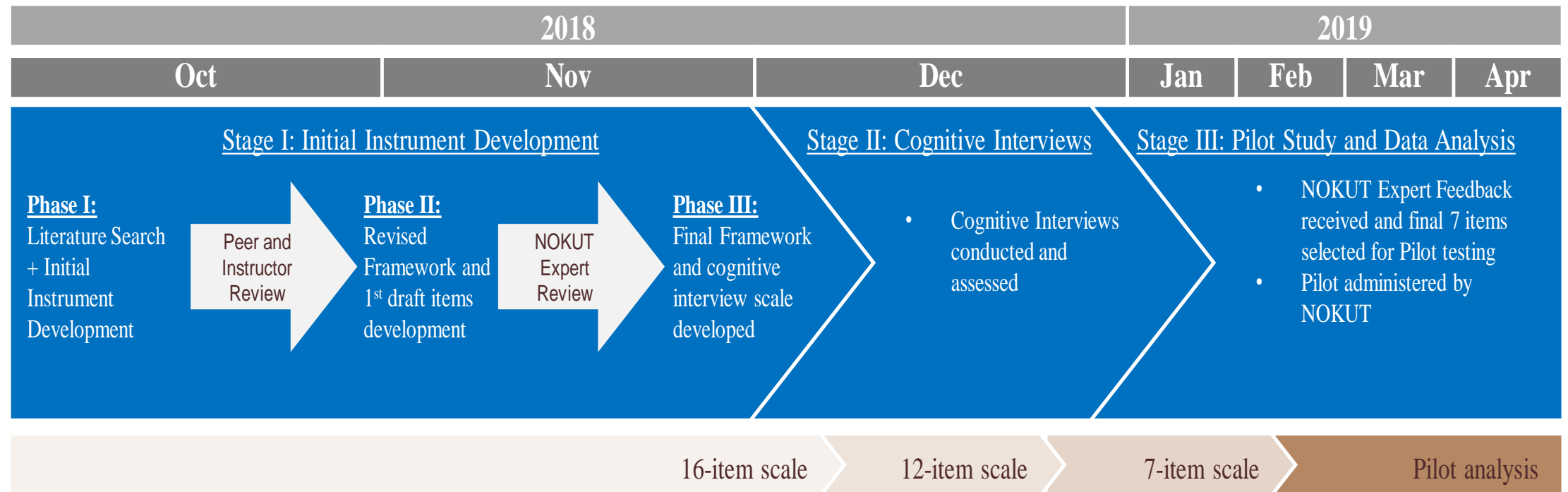
WORKING LIFE RELEVANCE OF THE STUDY PROGRAM: CONSTRUCTION OF A MEASURE

NASSEEM HESSAMI

UNIVERSITY OF OSLO, MAME 2019



CREATING THE WORKING LIFE RELEVANCE SCALE



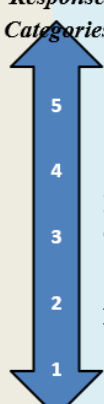
DISCLAIMER (ALREADY!):WLR AND THE SCALE'S OBJECTIVE

- Many iterations and rounds of expert / instructor feedback
- Extensive literature searches
- Lack of theory
- Lack of universal definition for WLR
- Scale Construction – The Substance:
 - Working Life Relevance:
 - *Working Life Relevance in Norwegian Higher Education* (Kantardjiev and Haakstad, 2015)
 - *Undergraduate business internships and career success: Are they related?* (Gault, Reddington, and Schlager, 2000)
 - *Effects of career preparation experiences on the initial employment success of college graduates* (Sagen, Dallam, and Laverty, 2000)
 - Test Theory:
 - *Validating Interpretations and Uses of Test Scores* (Kane, 2013)



FRAMEWORK AND CONSTRUCT MAP: WORKING LIFE RELEVANCE OF THE STUDY PROGRAM

- Students' perceptions of the working life relevance of their study programs gauged by the extent to which students felt their programs **exposed them to, and prepared them for**, viable work opportunities.
- Working Life Relevance = Exposure Experiences + Preparation Experiences
- Likert Responses
 - Agreeing with a statement to a low extent (1) or to a high extent (5)

Working life relevance	
Exposure to working life <ul style="list-style-type: none"> Items in this content category gauge students' exposure to relevant work life opportunities by way of internships and other mediums of employer-student contact. Optimal working life relevance: programs expose students to relevant work opportunities. This is measured by way of the program's ability to expose students to in-field work and internship opportunities, as well as the program's ability to provide students with direct, meaningful contact with potential employers. 	Preparation for working life <ul style="list-style-type: none"> Items in this content category gauge how informed, confident, prepared and supported students feel at the program level, as far as potential work life is concerned. Optimal working life relevance: programs prepare students for relevant work opportunities. This is measured by way of heightened confidence regarding job prospects, accrual of workforce-relevant skills and information at the program level, and students' conviction that their success in the workforce is important to their study program
Location on the construct <u>High working life relevance</u> Individuals believe, to a high extent, that above points are true about their study program. <u>Moderate working life relevance</u> Individuals believe, to a moderate extent, that above points are true about their study program. <u>Low working life relevance</u> Individuals believe, to a low extent or to no extent, that the above points are true about their study program.	Location on the construct <u>High working life relevance</u> Individuals believe, to a high extent, most or all of the above points are true about their study program. <u>Moderate working life relevance</u> Individuals believe, to a moderate extent, a few or one of the above points are true about their study program. <u>Low working life relevance</u> Individuals believe, to a low extent, one or none of the above points are true about their study program.
Response Categories 	

STAGE II: COGNITIVE INTERVIEWS – 16-ITEM SCALE

To what Extent Do You Think Your Study Program...

[illegible]

STAGE II: COGNITIVE INTERVIEWS

To what Extent Do You Think Your Study Program...

	To a low degree (1)	(2)	(3)	(4)	To a high degree (5)	Do Not Know
1. Has increased your confidence about job prospects since starting the program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has exposed you to occupations in your field you did not know about before starting the program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Exposes you to work life opportunities throughout the academic schoolyear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Cares about your success in the workforce, after graduation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is willing to help you find work opportunities when you graduate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is helpful when it comes to navigating the job market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Keeps you informed of different career-relevant opportunities (e.g. career fairs, guest speakers, networking events) throughout the academic schoolyear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Wants you to understand how your studies relate to potential careers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Has equipped you with practical skills you may need in the workforce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Should increase its working life relevancy in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Facilitates contact with potential employers throughout the academic schoolyear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Has the proper resources to assist you with navigating the job market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Facilitates possibilities for getting a relevant summer-job which is related to your program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Facilitates possibilities for getting a relevant internship which is related to your program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Prepares you to better understand how to approach potential employers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Is a good choice for having good chances in terms of employment in the job market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

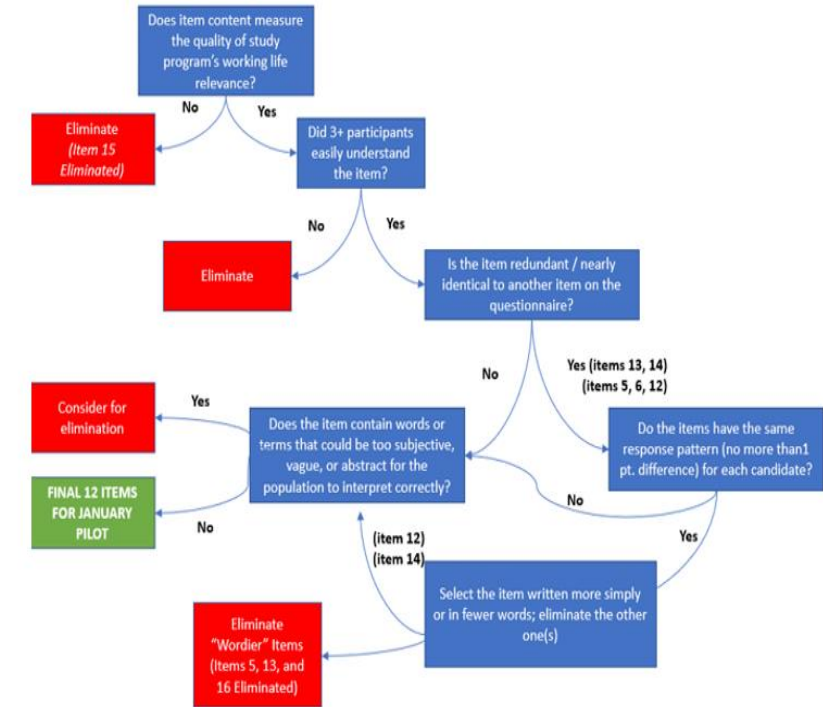
Cognitive Interview Respondent Profiles

	Gender	Degree	Yr of Study	Institution	Study Program
Participant 1	Male	Master	5 th	University of Bergen	Law
Participant 2	Male	Master	2 nd	BI, NMBU	Property
Participant 3	Female	Bachelor	2 nd	UiO	Special Education
Participant 4	Female	Master	2 nd	UiO	Higher Education

- Main Takeaways:
 - No usage of the “I Don’t Know” response
 - No two respondents found the same item confusing or unclear
 - Respondents of different study disciplines seemed to have different views of VLR of their programs, reaffirming findings of Kantardjiev and Haakstad (2015)

THE 7-ITEM PILOT QUESTIONNAIRE

Elimination Map used to reduce 16-item Cognitive Interview Questionnaire to 12 items



7-Item Pilot Questionnaire

To what Extent Do You Think Your Study Program...

[illegible]

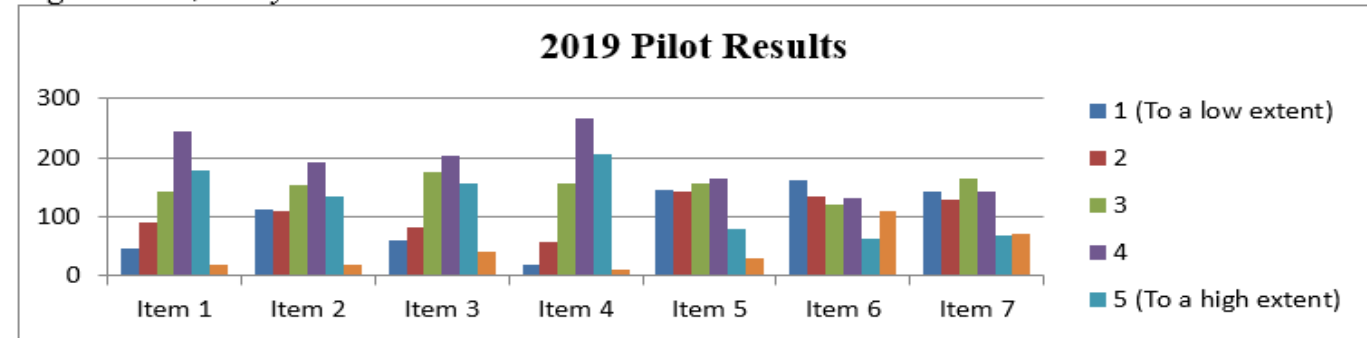
STAGE III: PILOT STUDY DATA – RESPONDENT PROFILES

Study Pilot Respondent Profiles							
	Total responses	2nd year Bachelor	2nd year Master	5th year Master	Proportion of Male: Female Respondents	No. Programs Represented	No. Institutions Represented
Item 1	703	346	293	64	0.37: 0.63	38	32
Item 2	703	346	293	64	0.37: 0.63	38	32
Item 3	678	334	280	64	0.36: 0.64	38	32
Item 4	709	346	299	64	0.37: 0.63	38	32
Item 5	690	336	290	64	0.37: 0.63	37	32
Item 6	612	303	248	61	0.37: 0.63	37	32
Item 7	648	318	266	64	0.36: 0.64	37	32

RESPONSE TRENDS OF PILOT STUDY

- Accounting for Missingness
 - The (dangerous) MCAR Assumption
 - Recoding “I Don’t Know” to N/A
 - Listwise Deletion of Complete Missingness (766 → 722 obs.)
- Caution in drawing conclusions from ordinal data

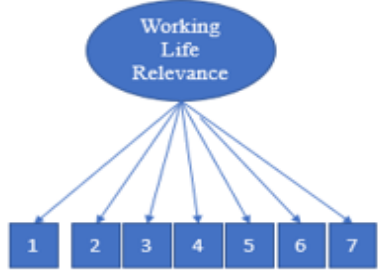
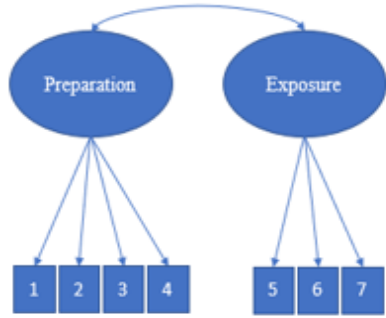
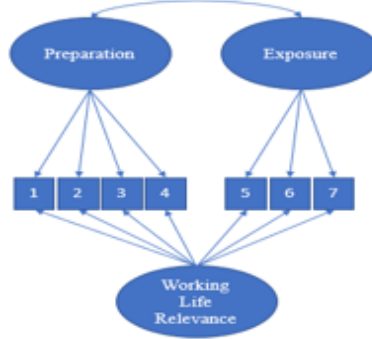
Figure 5.3.A, Study Pilot Results – 722 Observations across 7 Items



Descriptive Statistics for 722 Observations across 7 Items						Missingness (MCAR)*	
Item	Responses (N)	Mean response	SD	Median response	Univariate ~N	I don't know (6)*	Unmarked (N/A)*
1	703	3.59	1.19	4	No	19	0
2	703	3.17	1.34	3	No	19	0
3	678	3.46	1.22	4	No	44	3
4	709	3.82	1.03	4	No	13	2
5	690	2.84	1.32	3	No	32	1
6	612	2.67	1.34	3	No	110	1
7	648	2.79	1.30	3	No	74	3

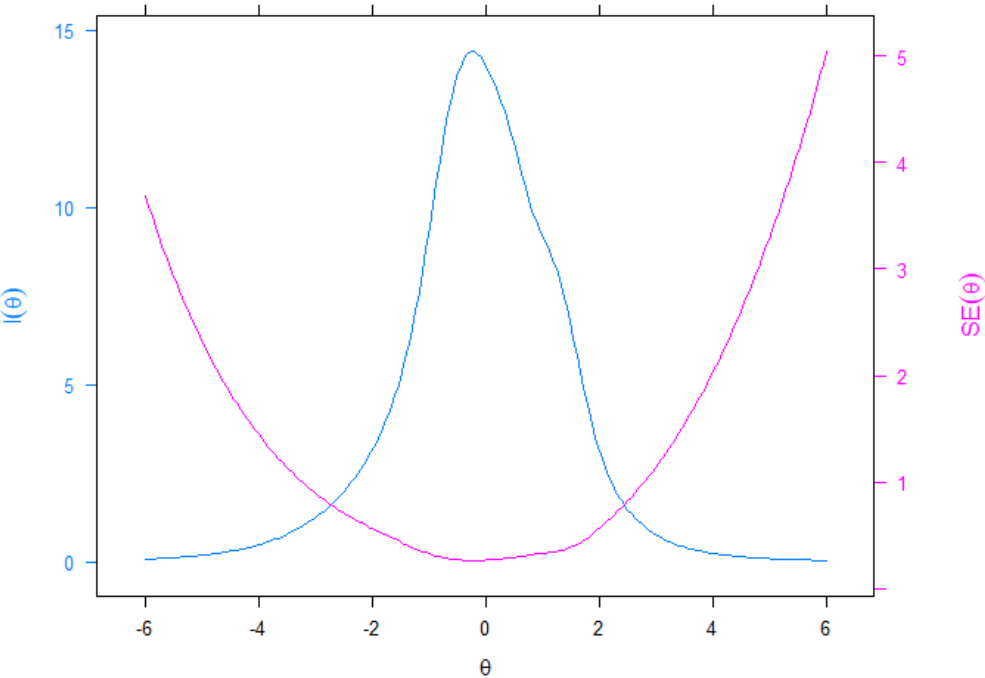
UNIDIMENSIONALITY OF WLR & FACTOR ANALYSIS

Table 5.3.C - Construct Comparisons

	Single Factor Model (WLR as the single construct being measured)	Two-Factor Model (Exposure & Preparation Experiences as Constructs)	Bifactor Model (WLR: General Construct; Exposure & Preparation as specific constructs)
			
Absolute Fit	Excellent (GFI: 0.974)	Excellent (GFI: 0.997)	Did Not Converge
Comparative Fit	Poor (TLI: 0.779)	Excellent (TLI: 0.986)	
Parsimony Fit	Poor (RMSEA: 0.184)	Excellent (RMSEA: 0.046)	
Overall Performance	Poor Fit	Satisfactory	Improper Solution

IRT ANALYSIS: SCALE AND ITEM PRECISION

Test Information and Standard Errors



Item Information Results							
	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7
Peak Information $I(\theta)$	0.80	0.40	1.00	0.70	2.70	1.80	6.00
Latent location of Peak Information: θ	-1.5 to 1	-2 to 2	-2 to 1	-3 to 1	-1 to 1	-2 to 1	-1 to 1
Overall Item Contribution	Poor	Poor	Poor	Poor	Adequate	Adequate	Strong

DISCUSSION & LIMITATIONS

- Unidimensionality (or lack thereof) of the WLR Construct
- Inference-driven framework vs. theory-driven framework
 - Need for further validity studies, investigations, interviews, pilots
- Different study programs = Different interpretations of WLR
 - Impossibility of a universal WLR definition
 - Items 5-7 (“Exposure” Domain) not as applicable and generalizable as initially envisioned

Descriptive Statistics for 722 Observations across 7 Items							
Item	Responses (N)	Mean response	SD	Median response	Univariate ~N	Missingness (MCAR)*	
						I don't know (6)*	Unmarked (N/A)*
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FINAL SCALE RECOMMENDATION

To what Extent Do You Think Your Study Program...

[illegible]

QUESTIONS OR FEEDBACK?



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