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Abstract English:

## **VA-MeCo**

### **Video-Based Assessment of Medical Communication Competence**

Reiser, S., Schacht, L., Thomm, E., Janssen, L., Schick, K., Berberat, P. O., Gartmeier, M., & Bauer, J. (2022)

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All information and materials about the test can be found in the Open Test Archive at:  
<https://www.testarchive.eu/en/test/9908435>

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## Abstract

### Diagnostic Scope

The Video-Based Assessment of Medical Communication Competence (VA-MeCo; Reiser et al., 2021) is a video-based Situational Judgement Test which assesses basic medical communication competence of medical students.

### Procedure

The VA-MeCo comprises 11 test tasks, each with 3 - 5 answer options, in which the situational communication behaviour of the physicians presented is assessed at the dimensions of advancing content, structuring and establishing a good working relationship.

### Background and Construction

The VA-MeCo is based on established standards of physician-patient communication [Calgary-Cambridge Guide (Kurtz, Silverman, Benson & Draper, 2003), CanMeds Framework (Frank & Danoff, 2007)], and their implementation in the German National Competence-Based Catalogue of Learning Objectives (NKLM), as well as on a model of professional communication (Munich Model of Professional Conversation Competence; Gartmeier, Bauer, Fischer, Karsten & Prenzel, 2011; Gartmeier et al., 2015).

### Empirical Examination and Criteria

**Reliability:** The VA-MeCo is highly reliable (McDonald's  $\Omega = .94$  for the overall scale and for the three dimensions:  $\Omega_{\text{Content}} = .82$ ,  $\Omega_{\text{Structure}} = .88$  and  $\Omega_{\text{Relationship}} = .88$ ).

**Validity:** The three dimensions were confirmed in a confirmatory factor analysis. Regarding construct validity, we could confirm a pattern of correlations with the constructs of patient orientation, empathy, prior knowledge/experience, intelligence, social competence as well as with the Big Five personality variables, which are mostly in line with expected associations.

**Norms:** A first proposal for a test norm (Tables 1-3) derived from a sample with  $N = 395$  medical students is available for usage.

Table 1

Means (M) and Standard Deviations (SD) ( $N = 395$ ) (Reiser et al., 2022)

VA-MeCo	<i>M</i>	<i>SD</i>
Advancing content (47 items)	421.04	42.66
Providing structure (37 items)	314.14	45.21
Building relationship (33 Items)	342.41	47.53

A median split was carried out based on the semester of study. 47.97 % of the sample is in the 1st to 5th semester, 52.03 % of the sample is in the 6th to 15th semester.

Table 2  
Semester of study (Reiser et al., 2022)

	Lower semester		Higher semester	
VA-MeCo	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
C (47 Items)	410.96	45.15	430.34	38.00
S (37 Items)	300.94	50.12	326.30	36.21
R (33 Items)	326.89	56.53	356.72	31.25

Notes. M = Mean, SD = Standard Deviation, C = Advancing content, S = Providing structure, R = Building relationship.

Table 3  
Sex (Reiser et al., 2022)

	Women		Men	
VA-MeCo	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
C (47 Items)	418.00	44.46	429.02	36.81
S (37 Items)	311.85	46.83	319.97	40.86
R (33 Items)	340.09	49.37	348.44	42.38

Notes. M = Mean, SD = Standard Deviation, C = Advancing content, S = Providing structure, R = Building relationship.

### All Items

A list of all items can be found in the document „VA-MeCo Instruktion und Items“ (only in German available).

### Application Ages

Medical students (age 17 and older).

### Application Time

The average time for the measurement is about 40 minutes.

## Evaluation

The VA-MeCo is a video-based test for measuring medical communication competence of medical students. It has sufficient content validity, high usability, and good reliability. In addition, there are positive findings on validity.

## References

Frank, J. R., & Danoff, D. (2007). The CanMEDS initiative: implementing an outcomes-based framework of physician competencies. *Medical Teacher*, 29(7), 642–647.  
<https://doi.org/10.1080/01421590701746983>

- Gartmeier, M., Bauer, J., Fischer, M. R., Hoppe-Seyler, T., Karsten, G., Kiessling, C., Möller, G. E., Wiesbeck, A., & Prenzel, M. (2015). Fostering professional communication skills of future physicians and teachers: effects of e-learning with video cases and role-play. *Instructional Science*, 43, 443–462. <https://doi.org/10.1007/s11251-014-9341-6>
- Gartmeier, M., Bauer, J., Fischer, M. R., Karsten, G., & Prenzel, M. (2011). Modellierung und Assessment professioneller Gesprächsführungskompetenz von Lehrpersonen im Lehrer-Elterngespräch. In O. Zlatkin-Troitschanskaia (Ed.), *Stationen Empirischer Bildungsforschung. Traditionslinien und Perspektiven* (pp. 412–424). Wiesbaden: VS-Verlag.
- Kurtz, S., Silverman, J., Benson, J., & Draper, J. (2003). Marrying content and process in clinical method teaching: enhancing the Calgary–Cambridge Guides. *Academic Medicine*, 78 (8), 802–809. <https://doi.org/10.1097/00001888-200308000-00011>
- Reiser, S., Schacht, L., Thomm, E., Figalist, C., Janssen, L., Schick, K., Dörfler, E., Berberat, P. O., Gartmeier, M., & Bauer, J. (2021). A video-based situational judgment test for medical student's communication competence in patient encounters: Development and first evaluation. *Patient Education and Counseling*. Advance online publication. <https://doi.org/10.1016/j.pec.2021.08.020>
- Reiser, S., Schacht, L., Thomm, E., Janssen, L., Schick, K., Berberat, P., Gartmeier, M., & Bauer, J. (2022). Datasets for: Scaling-up study - validation of the Video-Based Assessment of Medical Communication Competence - VA-MeCo. [Data set]. PsychArchives. <https://doi.org/10.23668/psycharchives.5337>