

## The English-Language Version of the DIN SCREEN Checkliste 1, Version 3 (Kersting, 2018)

*Isabelle Schmidt & Martin Kersting*

### Citation

Schmidt, I. & Kersting, M. (2020). The English-Language Version of the DIN SCREEN Checkliste 1, Version 3 (Kersting, 2018).

<https://doi.org/10.6102/dinscreen1.0English>

## Terms of use



This work is licenced under [Attribution-NonCommercial-NoDerivatives 4.0 International](https://creativecommons.org/licenses/by-nc-nd/4.0/) License (CC BY-NC-ND 4.0).

## **The English-language version of the DIN SCREEN Checkliste 1, Version 3 (Kersting, 2018)**

### **Description**

The English-language version of the "DIN SCREEN Checklist 1" can be used to check whether the documentation of a measurement instrument published in the open access repository for social and behavioral science measurement instruments ZIS by GESIS – Leibniz Institute for the Social Sciences meet the information requirements set out in Annex A and B of DIN 33430 (DIN, 2016). It should only be used for documentations of instruments that measure human behavior and experience. The checklist consists of 69 verifiable individual statements (exceptions: requirements B 18 and B 26). Every "No" in the checklist indicates an information deficit. Only the 32 "essential requirements" must be observed for DIN compatibility. If one or more of the 37 "desired requirements" are not met, this shows that the instructions for handling and procedures still formally meet the requirements but could be made even more informative in the sense of the recommendations formulated in DIN (2016).

### **References**

- DIN (2016). DIN 33430: Anforderungen an berufsbezogene Eignungsdiagnostik [Requirements for occupational aptitude diagnostics]. Berlin: Beuth.
- Kersting, M. (2018). Zur Information über und Dokumentation von Instrumenten zur Erfassung menschlichen Erlebens und Verhaltens – Die DIN SCREEN Checkliste 1, Version 3 [For information on and documentation of instruments for measuring human experience and behavior - The DIN SCREEN Checklist 1, Version 3] In: Diagnostik- und Testkuratorium (Hrsg.) Personalauswahl kompetent gestalten: Grundlagen und Praxis der Eignungsdiagnostik nach DIN 33430 (p. 223-244). Berlin: Springer. doi: 10.1007/978-3-662-53772-5.

Citation of the ZIS documentation:

Date

Signature

**Annex A (normative): Requirements for handling instructions for procedures**

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
A1	The goal of the procedure is described in an understandable way in the handling instructions.	D					
A2	The application areas are specified in an understandable way in the handling instructions. <sup>1</sup>	D					
V1	<i>Branching question: Are improper applications of the aptitude assessment procedure likely? If "no" -&gt; please continue to branching question V2.</i>						
A3	The handling instructions include specific warnings against improper use for aptitude assessment.	D					
V2	<i>Branching question: Does the handling of the procedure require special qualifications? If "no" -&gt; please continue to statement A5.</i>						
A4	The special qualifications required for the handling of the procedure are specified.	E					

<sup>1</sup> Re requirement A2: For example, the group of persons (e.g., educational level) for which the procedure can be used should be specified.

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
	The handling instructions provide information from which the user can estimate the effort in terms of the following aspects:						
A5	• materials	D					
A6	• staff	D					
A7	• premises	D					
	The handling instructions provide information from which the user can estimate the effort in terms of time:						
A8	• for the candidate	D					
A9	• for the user to routinely prepare the procedure	D					
A10	• for the user to implement the procedure	D					
A11	• for the user to evaluate the procedure	D					

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
V3	<i>Branching question 3: Is there any interaction with the candidate? If "no" -&gt; please continue to A13.</i>						
A12	The handling instructions include understandable instructions for the candidate that help to prevent the likelihood of queries. <sup>2</sup>	D					
	The handling instructions are designed in such a way that, on the basis of these handling instructions alone, different persons with the required qualifications are able to do the following in the same way:						
A13	<ul style="list-style-type: none"> <li>implement the procedures</li> </ul>	E					
A14	<ul style="list-style-type: none"> <li>evaluate the procedures</li> </ul>	E					
A15	<ul style="list-style-type: none"> <li>interpret the results of the procedures</li> </ul>	E					

<sup>2</sup> Re requirement A12: Examples of queries that are frequent but avoidable (if appropriate instructions are provided at the beginning of the procedure): May I take notes? Will the time available to complete the procedure be announced? Can subtasks be skipped? Are there penalty points or point deductions for incorrect answers?

**Annex B (normative): Requirements for procedural notes for questionnaires and tests with a measurement-theoretical foundation****General requirements**

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
B1	The theoretical foundations of the procedure are described.	E					
B2	The procedural notes adequately (i.e., thoroughly, clearly, and comprehensibly) describe how the standardized procedure was constructed. <sup>3</sup>	E					
B3	The results of one or more empirical studies are reported in the procedural notes.	E					
H1	<i>Note: If "no" is selected, "no" must also be selected for requirements B4 to B13.</i>						
B4	All relevant empirical studies mentioned in the procedural notes are comprehensibly described/documented.	E					

<sup>3</sup> Re requirement B2: This means that the procedural notes explain, for example, how and why the questions of a questionnaire or the tasks of a test were selected or constructed.

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
	The report on empirical studies includes:						
B5	• an indication of the year of data collection	E					
B6	• descriptive statistics on the characteristics of the study participants <sup>4</sup>	E					
B7	• information on the purpose for which the test was taken by participants <sup>5</sup>	E					
B8	• information on whether data collection took place under supervision or under uncontrolled conditions (e.g., from home via the Internet)	E					
B9	• information on whether and how participation (e.g., result-oriented) was rewarded (e.g., remunerated)	E					
B10	• information about the sampling plan	D					
B11	• information on participation rates	D					

<sup>4</sup> Re requirement B6: Explanation: e.g., information on age, sex, education, status (e.g., pupils, students, trainees, employed persons, etc.).

<sup>5</sup> Re requirement B7: e.g., without a purpose relevant to the participants; for the purpose of personal orientation; or in connection with personnel decisions



		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
B12	The documentation of the empirical work follows the usual criteria for scientific publications. <sup>6</sup>	D					
B13	The number of persons examined in the empirical studies is appropriate for the specific research question. <sup>7</sup>	E					
V4	<i>Branching question V4: Is the procedure likely to be distorted? If "no" -&gt; please continue to branching question V5.</i>						
B14	It is indicated whether and how distortion can be counteracted by the type of procedural specification and implementation – and, if applicable, also during the evaluation.	D					
V5	<i>Branching question V5: Is the evaluation carried out manually? If "no" -&gt; please continue to branching question V6.</i>						
B15	The procedural notes include rules on how questions or (sub)tasks that are not completed should be dealt with during the evaluation.	E					

<sup>6</sup> Re requirement B12: Explanation: See, for example, Deutsche Gesellschaft für Psychologie (Ed.). (2016). *Richtlinien zur Manuskriptgestaltung* (4th ed.). Göttingen: Hogrefe; and Wilkinson, L., & APA Task Force on Statistical Inference. (1999). Statistical methods in psychology journals: Guidelines and explanations. *American Psychologist*, 54, 594–604. The latest edition of these publications applies.

<sup>7</sup> Re requirement B13: e.g., the computation of norm values, expected effect strengths

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
V6	<i>Branching question V6: Does the procedure provide a comparison with norm values? If "no" -&gt; please continue to requirement B22.</i>						
B16	The reference group from which the normative data were obtained corresponds in terms of key characteristics to the group of persons to which, according to the procedural notes, the procedure is applied, or is to be applied; or it is demonstrated that the existing normative data can be used for the target group. <sup>8</sup>	E					
B17	The adequacy of the norm values has been reviewed in the last eight years. <sup>9</sup>	D					
V7	<i>Branching question V7: Has the adequacy of the norm values been reviewed in the last eight years? If "yes" please continue to branching question V8.</i>						
B18	The procedural notes explain why and under what circumstances the procedure can be selected for a specific application even though the adequacy of the norm values has not been reviewed in the last eight years. <sup>10</sup>	E					

<sup>8</sup> Re requirement B16: Key characteristics are, for example, age, education level, work experience. Such a correspondence does not exist if, for example, English-language skills of managers are to be assessed, but the norm values for the procedure were obtained from pupils.

<sup>9</sup> Re requirement B17: Explanation: It is only a question of reviewing the adequacy of the norm values. Whether renorming must be carried out depends on the results of the review. DIN 33430 does not require that new norms be established every eight years at the latest.

<sup>10</sup> Re requirement B18: The requirement in the DIN text reads [our translation]: "If the adequacy of the norm values has not been reviewed in the last eight years, it must be justified why the procedure is nevertheless selected." This justification is the responsibility of the aptitude diagnosticians. In contrast, the formulation chosen here in the checklist is addressed to those responsible for the procedural notes.

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
V8	<i>Branching question V8: Does the procedure aim to measure an aptitude whose values in the reference group may be subject to relatively short-term changes?<sup>11</sup> If "no"-&gt; please continue to branching question V9.</i>						
B19	The adequacy of the norm values was already empirically demonstrated before the expiry of the eight-year period.	E					
V9	<i>Branching question V9: Is it possible to evaluate the values of a person using different norm groups (also known as group-specific norms)?<sup>12</sup> If "no" -&gt; please continue to requirement B22.</i>						
B20	To ensure objectivity of interpretation, clear instructions are given on to how to decide which norm group is to be used in which case.	D					
B21	The effects of the application of these group-specific norms <sup>13</sup> are explained in a comprehensible manner,	D					

<sup>11</sup> Re branching question V8: e.g., computer skills

<sup>12</sup> Re branching question V9: Different norm groups would be, for example, education-specific and non-education-specific norms.

<sup>13</sup> Re requirement B21: e.g., education-specific norms

**Reliability**

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
B22	The procedural notes include information on the reliability of the procedure that is derived from empirical studies.	E					
H2	<i>Note H2: If no information is provided on the reliability of the procedure, requirement B22 should be answered "no."</i>						
V10	<i>Branching question V10: Has information been provided on the reliability of the procedure? If "no" -&gt; please continue to requirement B27.</i>						
B23	The appropriateness of the method(s) used to determine the reliability is explained. <sup>14</sup> The explanation takes into account the type of aptitudes assessed and decision sought, as well as the specific application and assessment conditions.	D					
V11	<i>Branching question V11: Is the procedure to be used to measure characteristics for which at least relative temporal and situational stability is assumed? If "no" -&gt; please continue to requirement B27.</i>						
B24	Reliability was determined by means of the retest method, or retest reliability was estimated using an appropriate investigation plan.	D					

<sup>14</sup> Re requirement B23: Explanation: Determining internal consistency, for example, is not an appropriate way of determining reliability in the case of procedures with heterogeneous content; determining retest reliability is not an appropriate way of determining reliability in the case of procedures measuring rapidly changeable characteristics (e.g., moods).

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
B25	The most recent proof of the validity of the reliability indices is less than eight years old.	D					
V12	<i>Branching question V12: Has the validity of the reliability indices been reviewed in the last eight years? If "yes" -&gt; please continue to requirement B27.</i>						
B26	The procedural notes explain why and under what circumstances the procedure can be chosen for a specific application even though the validity of the reliability indices has not been reviewed in the last eight years. <sup>15</sup>	E					

<sup>15</sup> Re requirement B26: The requirement in the DIN text reads [our translation]: "If the reliability indices have not been reviewed in the last 8 years, it must be justified why the procedure is nevertheless selected." This justification is the responsibility of the aptitude diagnosticians. In contrast, the wording chosen here in the checklist is addressed to the persons responsible for the procedural notes.

**Validity**

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
B27	The procedural notes include information on the validity of the procedure that is derived from empirical studies.	E					
V13	<i>Branching question V13: Has information been provided on the validity of the procedure? -&gt; If "no", the checklist ends at the following note, H3.</i>						
H3	<i>Note H3: If no empirically substantiated information on the validity of the procedure is provided, requirements B27 to B34 and B40 to B41 must be answered "no".</i>						
B28	The procedural notes make clear what empirical evidence of content and/or criterion and/or construct validity justifies an application of the procedure or the class of procedures for the intended purpose of application according to the procedural notes.	E					
	The procedural notes specify what validity values:						
B29	• were obtained in relation to what criterion <sup>16</sup>	E					
B30	• were achieved for what reference groups	E					

<sup>16</sup> Re requirement B29: Criterion for the worth of the procedure, for example, a superior's assessment of [the individual's] professional success.

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
	The procedural notes specify what validity values:						
B31	• were obtained in what investigation	E					
B32	• were achieved for what process result <sup>17</sup>	E					
B33	• were achieved at what point in time	E					
B34	The most recent evidence of the validity of the procedure is less than eight years old.	D					
V14	<i>Branching question V14: Were statistical adjustment and optimization methods used to determine validity?<sup>18</sup> If "no" -&gt; please continue to branching question V15.</i>						
	In the documentation of the validity analyses,						
B35	• both the originally obtained and the adjusted indices are reported	E					
B36	• all the statistics used in connection with the adjustment are specified	E					

<sup>17</sup> Re requirement B32: Does the validity value refer, for example, to the overall result or to a partial result (e.g., to a single scale or to individual items)? Does the validity value refer to a raw value or to a standardized value?

<sup>18</sup> Re branching question V14: e.g., correction for attenuation, correction for variance restriction, multiple regression

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
	In the documentation of the validity analyses,						
B37	<ul style="list-style-type: none"> <li>statistically optimized estimates as well as simple estimates are reported<sup>19</sup></li> </ul>	E					
B38	<ul style="list-style-type: none"> <li>the optimized estimates were applied to another group of persons within the scope of application of the procedure, and their validity was confirmed (cross-validation)</li> </ul>	D					
B39	<ul style="list-style-type: none"> <li>the statistical optimizations are translated into action-guiding appraisal rules<sup>20</sup></li> </ul>	D					
V15	<i>Branching question V15: Is the claim to validity based on the fact that indications of validity from other investigations are used? If "no"-&gt; please continue to requirement B42.</i>						
	It is reported in a comprehensible manner:						
B40	which findings can be generalized (presentation of the corresponding studies, literature overviews, and meta-analyses)	D					
B41	why (and to what extent) the indications of validity resulting from other studies are transferable	D					

<sup>19</sup> Re requirement B37: Statistically optimized estimates are, for example, multiple regressions; simple estimates are, for example, simple correlations.

<sup>20</sup> Re requirement B39: If, for example, it is shown that, when several predictors (e.g., several scales of a test) are included, the multiple predictability of a criterion is significantly higher than the simple correlation between individual predictors and this criterion, then it should be explained to the user how he/ she can combine/weight the different predictors in such a way that the advantage can be put to practical use.



**Construct validity**

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
B42	Based on content-related considerations, it is explained how the construct in question relates to similar constructs (convergent validity).	D					
B43	Based on empirical results, it is explained how the construct in question relates to similar constructs (convergent validity).	D					
B44	Based on content-related considerations, it is explained how the construct in question relates to dissimilar constructs (discriminant validity).	D					
B45	Based on empirical studies, it is explained how the construct in question relates to dissimilar constructs (discriminant validity).	D					

**Criterion validity**

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
B46	The analysis of the criterion validity of the procedure describes why the specific criterion used in the analysis is appropriate and valid.	E					
B47	Both the objectivity and the reliability of each criterion measure used are presented where possible.	D					
B48	The appropriateness of the study group used for the analysis of criterion validity is explained. <sup>21</sup>	E					

<sup>21</sup> Re requirement B48: For example, the demographic characteristics of the study group (e.g., education level, age, work experience, etc.) should be discussed in relation to the group mentioned as the target group of the procedure.

**Content validity (if relevant for the procedure in question)**

		Desired (D) or Essential (E)	Yes	No	Not to be rated	Notes	Source (page)
V16	<i>Is content validity claimed for the procedure? If "no", the checklist ends here.</i>						
B49	The content area represented in the procedure is described in a comprehensible way.	D					
B50	The criteria for the description of the hypothetical item universe that underlies the procedure are specified.	D					
B51	The rules according to which the procedure, as a systematically compiled sample of items, was derived from the item universe are presented.	D					
V17	<i>Has the question whether the procedure represents the defined content area been assessed by experts? If "no", the checklist ends here.</i>						
B52	Both the level of specialized training and the experience and qualifications of the experts involved are described.	D					
B53	It is explained how the experts arrived at their assessment.	D					
B54	The level of consensus between the expert assessments is indicated.	D					