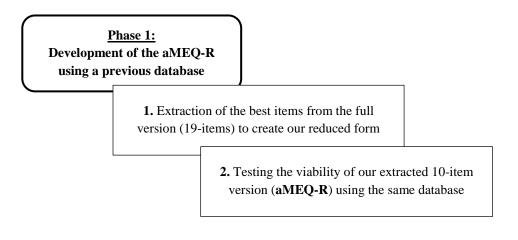
Schematic representation of the procedure adopted in this study



Phase 2: Validation study of the aMEQ-R using an independent sample

1. Administration of the aMEQ-R to an independent sample of 217 adolescents. TASC was also administered at this time

3-4 weeks of interval

2. Administration of the full form of the aMEQ (19-items) to the same sample of 217 adolescents. TASC was also administered at this time

Notes: aMEQ-R: reduced 10-item version of the Morningness-Eveningness Questionnaire for Portuguese adolescents (aMEQ; 19-items). TASC: Trait Anxiety Scale for Children. The database used in Phase 1 was obtained from the previous validation study of aMEQ by Rodrigues et al. (2016).

Reference

Rodrigues, P. F. S., Pandeirada, J. N. S., Marinho, P. I., Bem-Haja, P., Silva, C. F., Ribeiro, L., & Fernandes, N. L. (2016). Morningness-eveningness preferences in Portuguese adolescents: Adaptation and psychometric validity of the H&O questionnaire. *Personality and Individual Differences*, 88, 62-65. doi:10.1016/j.paid.2015.08.048

Agreement in the chronotype classification between the aMEQ and the aMEQ-R created in Phase 1 of the study

Table 1. Distribution of the three chronotypes measured by aMEQ (19 items) and by the 10 extracted items (our reduced form), based on the database used to develop the aMEQ-R in Phase 1 of the study. The number of participants (and percentages) according to the cut-off points obtained with the reduced 10-item version (aMEQ-R) and the full 19-item scale (aMEQ) is presented in each cell of the Table.

	aMEQ-R (10 items)				
	Evening	Intermediate	Morning	Total	
Evening	30 (10.00)	11 (3.67)	0 (0.00)	41 (13.67)	
Intermediate	15 (5.00)	172 (57.33)	20 (6.67)	207 (69.00)	
Morning	0 (0.00)	9 (3.00)	43 (14.33)	52 (17.33)	
Total	45 (15.00)	192 (64.00)	63 (21.00)	300 (100.00)	

Agreement in the chronotype classification between the aMEQ and the aMEQ-R in Phase 2 of the study

Table 1. Distribution of the three chronotypes measured by the aMEQ-R (10 items; first administration) and the aMEQ (19 items; second administration) from Phase 2 of the study. The number of participants (and percentages) according to the cut-off points obtained with the reduced 10-item version (aMEQ-R) and the full 19-item scale (aMEQ) is presented in each cell of the Table.

	Evening	Total		
Evening	25 (11.52)	14 (6.45)	0 (0.00)	39 (17.97)
Intermediate	15 (6.91)	109 (50.23)	19 (8.76)	143 (65.90)
Morning	0 (0.00)	13 (5.99)	22 (10.1)	35 (16.13)
Total	40 (18.43)	136 (62.67)	41 (18.89)	217 (100)

Anxiety classification combined with chronotype considering the results obtained with the two questionnaires in Phase 2

As noted in the paper, evening-type adolescents usually present higher trait-anxiety than intermediate and morning-type individuals. The results reported in the main MS already indicate that the aMEQ-R is sensitive to capture this relation. The analyses here reported aim to further demonstrate that the results obtained with the aMEQ-R (our 10item reduced form) and the aMEQ (the 19-item full form) relate in a similar way to traitanxiety. To this end, we classified participants in low-, median-, and high-anxiety considering the cut-off points presented in the validation paper of the Trait Anxiety Scale for Children - TASC (Rodrigues, Pandeirada, Bem-Haja, & França, 2017) and then combined this classification with the chronotype classification. Participants with scores \leq 22 were classified as *low*, those with scores \geq 34 were classified as *high* and those with scores in between as median trait-anxiety. Because the TASC was also administered in the two moments in Phase 2, its results were combined with the corresponding chronotype results; that is, the results of the TASC obtained in the first administration were combined with the classification considering the aMEQ-R results, and those obtained in the second administration of the TASC were combined with the classification resulting from the aMEQ scores (for an illustration of the Procedure, see Figure of the SM-1). The combination of these distributions is presented in Table 1 of this SM. The contingency coefficient revealed a value of .784, suggesting good agreement in the way these two variables are combined.

Reference

Rodrigues, P. F. S., Pandeirada, J. N. S., Bem-Haja, P., & França, J. (2017). The Trait Anxiety Scale for Children: A validation study for European Portuguese children and adolescents. *European Journal of Developmental Psychology*, 15, 472-480. doi:10.1080/17405629.2017.1308249

Table 1. Number of participants per chronotype according to the cut-off points obtained with the aMEQ-R (first administration) and the aMEQ (second administration) and according to low-, median- and high-anxiety classification obtained in the corresponding administrations. All data were obtained in Phase 2 of the study reported in the MS.

aMEQ X TASC 2#

Chronotype		Evening-type		Intermediate			Morning-type				
Anxiety	Low	Median	High	Low	Median	High	Low	Median	High	Tota	
	Low	5	1	0	2	2	0	0	0	0	10
	Median	3	6	2	2	3	1	0	0	0	17
	High	1	1	6	0	2	3	0	0	0	13
	Low	2	1	0	18	8	0	5	1	0	35
	Median	0	4	0	13	35	8	0	4	0	64
	High	0	2	5	0	6	21	0	1	2	37
	Low	0	0	0	3	2	0	6	4	1	16
	Median	0	0	0	1	8	0	1	9	0	19
	High	0	0	0	0	0	5	0	0	1	6
	Total	11	15	13	39	66	38	12	19	4	217

Notes: TASC_1: classification of the participants into low-, median-, and high-anxiety considering the results obtained in the first administration in Phase 2 of the study; TASC_2: classification of the participants into low-, median-, and high-anxiety considering the results obtained in the second administration in Phase 2 of the study. Low = participants with TASC scores \leq 22; High = participants with TASC scores \geq 34; Median = participants with TASC scores \geq 22 and \leq 34. N = 217. *The resulting classification from TASC_1 was considered with the chronotype classification from aMEQ-R (10-item reduced form). *The resulting classification from TASC_2 was considered with the chronotype classification from aMEQ (19-items).