Morningness-Eveningness Questionnaire

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Purpose Consisting of 19 items, the scale was developed to assess individual differences in morningness and eveningness – the degree to which respondents are active and alert at certain times of day. Scale items query preferences in sleep and waking times, and subjective "peak" times at which respondents feel their best.

Population for Testing The questionnaire was first validated with individuals aged 18–32 years.

Administration A self-report, paper-and-pencil measure, the scale requires between 10 and 15 min for completion.

Reliability and Validity Horne and Östberg [1] conducted an evaluation of the scale's psychometric properties and found that individuals placed within each of the scale's five diagnostic categories possessed significantly different waking oral temperatures. More recently, research has indicated that the scale's inter-item correlations are merely moderate, ranging from – .02 to + .61, suggesting that the scale is actually composed of two factors [2]. Still, the full scale internal consistency remained sufficient at .82, supporting the use of a global score.

Obtaining a Copy A copy can be found in the original article published by developers [1].

Scoring The scale is composed of both Likert-type and time-scale questions. The Likert-type items present four options with the lowest values indicating definite eveningness. Similarly, the time-scale items are divided into periods of 15 min spanning a time frame of 7 h. Each section of the scale is assigned a value of 1 through 5. To obtain a global score, each item is totaled and the sum is converted to a 5-point scale: definitely morning type (70–86), moderately morning type (59–69), neither type (42–58), moderately evening type (31–41), and definitely evening type (16–30). However, finding that these cutoffs under-identified morningness types in a population of Austrian students, researcher Neubauer [3] suggested that the scale may need to be adapted to the specific region in which it is being used to accommodate variations in circadian rhythms.

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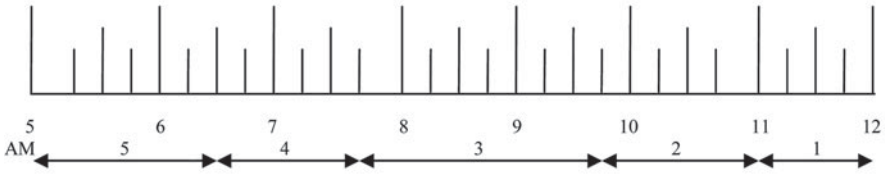
Morningness-Eveningess Questionnaire

Instructions:

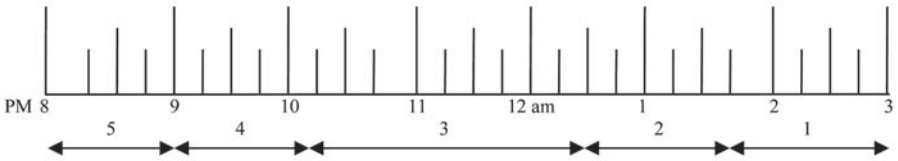
1. Please read each question very carefully before answering.
2. Answer ALL questions
3. Answer questions in numerical order.
4. Each question should be answered independently of others. Do NOT go back and check your answers.
5. All questions have a selection of answers. For each question place a cross alongside ONE answer only. Some questions have a scale instead of a selection of answers. Place a cross at the appropriate point along the scale.
6. Please answer each question as honestly as possible. Both your answers and the results will be kept, in strict confidence.
7. Please feel free to make any comments in the section provided below each question.

The Questionnaire with scores for each choice

1. Considering only your own "feeling best" rhythm, at what time would you get up if you were entirely free to plan your day?



2. Considering only your own "feeling best" rhythm, at what time would you go to bed if you were entirely free to plan your evening?



3. If there is a specific time at which you have to get up in the morning, to what extent are you dependent on being woken up by an alarm clock?

Not at all dependent ☐ 4
Slightly dependent ☐ 3
Fairly dependent ☐ 2
Very dependent ☐ 1

4. Assuming adequate environmental conditions, how easy do you find getting up in the mornings?

Not at all easy ☐ 1
Not very easy ☐ 2
Fairly easy ☐ 3
Very easy ☐ 4

5. How alert do you feel during the first half hour after having woken in the mornings?

Not at all alert ☐ 1
Slightly alert ☐ 2
Fairly alert ☐ 3
Very alert ☐ 4

6. How is your appetite during the first half-hour after having woken in the mornings?

Very poor ☐ 1
Fairly poor ☐ 2
Fairly good ☐ 3
Very good ☐ 4

7. During the first half-hour after having woken in the morning, how tired do you feel?

Very tired	☐ 1
Fairly tired	☐ 2
Fairly refreshed	☐ 3
Very refreshed	☐ 4

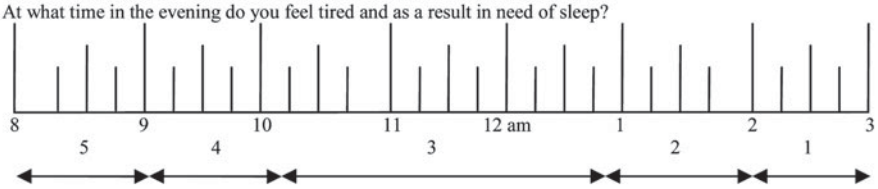
8. When you have no commitments the next day, at what time do you go to bed compared to your usual bedtime?

Seldom or never later	☐ 4
Less than one hour later	☐ 3
1-2 hours later	☐ 2
More than two hours later	☐ 1

9. You have decided to engage in some physical exercise. A friend suggests that you do this one hour twice a week and the best time for him is between 7:00-8:00 a.m. Bearing in mind nothing else but your own "feeling best" rhythm, how do you think you would perform?

Would be on good form	☐ 4
Would be on reasonable form	☐ 3
Would find it difficult	☐ 2
Would find it very difficult	☐ 1

10. At what time in the evening do you feel tired and as a result in need of sleep?



11. You wish to be at your peak performance for a test which you know is going to be mentally exhausting and lasting for two hours. You are entirely free to plan your day and considering only your own "feeling best" rhythm which ONE of the four testing times would you choose?

8:00-10:00 a.m.	☐ 6
11:00 a.m.-1:00 p.m.	☐ 4
3:00-5:00 p.m.	☐ 2
7:00-9:00 p.m.	☐ 0

12. If you went to bed at 11 p.m. at what level of tiredness would you be?

Not at all tired	☐ 0
A little tired	☐ 2
Fairly tired	☐ 3
Very tired	☐ 5

13. For some reason you have gone to bed several hours later than usual, but there is no need to get up at any particular time the next morning. Which ONE of the following events are you most likely to experience?

Will wake up at usual time and will NOT fall asleep	☐ 4
Will wake up at usual time and will doze thereafter	☐ 3
Will wake up at usual time but will fall asleep again	☐ 2
Will NOT wake up until later than usual	☐ 1

14. One night you have to remain awake between 4-6 a.m. in order to carry out a night watch. You have no commitments the next day. Which ONE of the following alternatives will suit you best?

Would NOT go to bed until watch was over	☐ 1
Would take a nap before and sleep after	☐ 2
Would take a good sleep before and nap after	☐ 3
Would take ALL sleep before watch	☐ 4

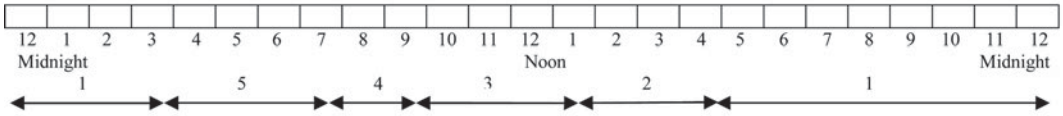
15. You have to do two hours of hard physical work. You are entirely free to plan your day and considering only your own "feeling best" rhythm which ONE of the following times would you choose?

8:00-10:00 a.m.	☐ 4
11:00 a.m.-1:00 p.m.	☐ 3
3:00-5:00 p.m.	☐ 2
7:00-9:00 p.m.	☐ 1

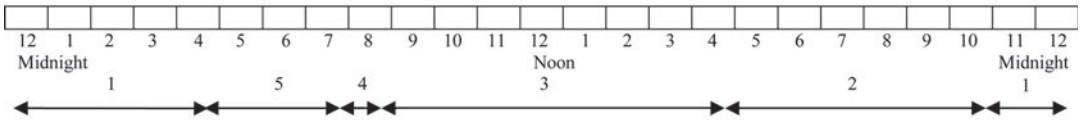
16. You have decide to engage in hard physical exercise. A friend suggests that you do this for one hour twice a week and the best time for him is between 10-11 p.m. Bearing in mind nothing else but your own "feeling best" rhythm how well do you think you would perform?

Would be on good form	☐ 1
Would be on reasonable form	☐ 2
Would find it difficult	☐ 3
Would find if very difficult	☐ 4

17. Suppose that you can choose your own work hours. Assume that you worked a FIVE hour day (including breaks) and that your job was interesting and paid by results. Which FIVE CONSECUTIVE HOURS would you select?



18. At what time of the day do you think that you reach your "feeling best" peak?



19. One hears about "morning" and "evening" types of people. Which ONE of these types do you consider yourself to be?

Definitely a "morning" type	☐ 6
Rather more a "morning" than an evening type	☐ 4
Rather more an "evening" than a "morning" type	☐ 2
Definitely an "evening" type	☐ 0

References

1. Horne, J. A., & Östberg, O. (1976). A self-assessment questionnaire to determine morningness-eveningness in human circadian rhythms. *International Journal of Chronobiology, 4*, 97–110.
2. Smith, C. S., Reilly, C., & Midkiff, K. (1989). Evaluation of three circadian rhythm questionnaires with suggestions for an improved measure of morningness. *Journal of Applied Psychology, 74*(5), 728–738.
3. Neubauer, A. C. (1992). Psychometric comparison of two circadian rhythm questionnaires and their relationship with personality. *Personality and Individual Differences, 13*(2), 125–131.

Representative Studies Using Scale

Ayalon, L., Borodkin, K., Dishon, L., Kanety, H., & Dagan, Y. (2007). Circadian rhythm sleep disorders following mild traumatic brain injury. *Neurology, 68*(14), 1136–1140.

Rybak, Y. E., McNeely, H. E., Mackenzie, B. E., Jain, U. R., & Levitan, R. D. (2006). An open trial of light therapy in adult attention-deficit/hyperactivity disorder. *Journal of Clinical Psychiatry, 67*(10), 1527–1535.