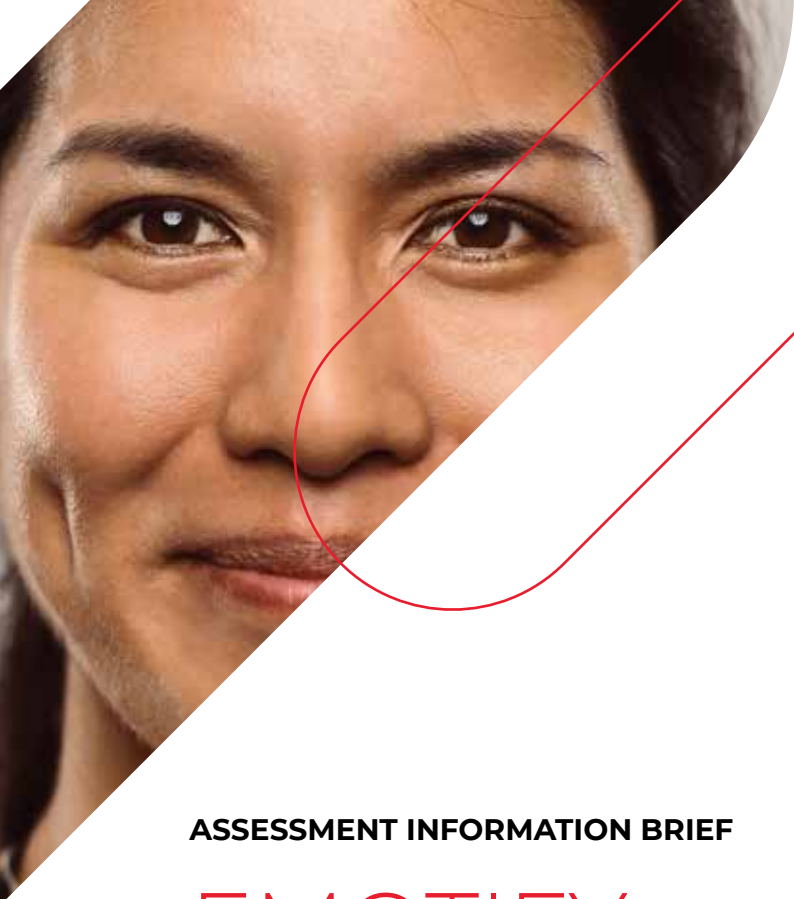


EMOTIFY

ASSESSMENT INFORMATION BRIEF





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EMOTIFY

Predict interpersonal, team, and leadership effectiveness.

Emotify, one of the world's few ability-based measures of Emotional Intelligence (EI).

Emotify is comprised of two separate assessments: **Matching Faces** and **Emotional Ties**. Matching Faces requires candidates to quickly identify the emotion displayed on a person's face, while Emotional Ties requires candidates to read a number of everyday situations and predict the types of emotional consequences that may arise as a result of these situations. These assessments have been specifically developed to assess a candidate's ability to accurately perceive emotions and effectively understand the connections between emotions, and situations that lead to specific emotional reactions.

Emotify uses a device-agnostic approach and natively displays in common browsers without the need to download any additional plugins or settings to ensure that all candidates have a positive and frictionless testing experience no matter the operating system, device type, or size.

MEASURE

Two key aspects of Emotional Intelligence: emotional perception and emotional understanding



PREDICT

Interpersonal team and leadership effectiveness



TIME

20 minutes, timed



GAMES

Two separate ability-based mini-assessments



DEVICE

Device-agnostic: take the test wherever you are on a digital device of your choosing



Game-Based Assessments

Criteria is driving change and innovation in the development of game-based assessments. This is achieved through cutting edge technology, psychometric modeling, rigorous validation, and game design.

Game-based assessments, unlike traditional assessments, take more into account than just the correct answer, providing richer insight into a candidate's strengths and abilities. Game-based assessments draw the best effort from the candidate, providing insight into their true potential. This is done while maintaining robust psychometric properties and complementing traditional psychometric assessment data.

A further strength of game-based assessments is their robustness against faking and response distortion, providing the candidate with tasks that assess ability while not exposing the nature of the construct being measured. This further strengthens the ability of game-based assessments to provide recruiters with true insight into their candidates. Candidate engagement is also increased by providing real time, in-game feedback that indicates to the candidate how they are performing as they move through the tasks.

Ability-Based Emotional Intelligence

Over the previous two decades, EI has attracted much attention in both popular and academic literature. Two distinct conceptualisations of EI have emerged during this time that attempt to broadly define EI and guide its measurement - an ability-based model and trait-based model of EI. The ability-based approach views EI as a type of intelligence, akin to cognitive ability, and utilises performance-based assessment. The trait model views EI more like personality and assesses it via self-report measures. The ability-based approach is more suited to recruitment contexts than the self-report approach.

Criteria's approach to assessing EI has been guided by the ability-based model first proposed by two prominent EI researchers, Mayer and Salovey in 1997. Considered the most prevalent of ability-based models, this approach incorporates four branches of EI-related abilities - perceiving, using, understanding, and managing emotions.

Emotify has been developed to specifically assess the first and third branches of Mayer and Salovey's model - emotional perception and emotional understanding. Emotion perception refers to the appraisal and expression of emotion and focuses on the ability to quickly and accurately perceive emotions in "others," typically using nonverbal information. Accurate identification of emotions assists in making decisions regarding the most appropriate way to respond to others. Emotional understanding is concerned with how well one can effectively identify connections between events and emotional reactions. A comprehensive understanding of emotions fosters a knowledge of emotional triggers and the prediction of emotional outcomes to different situations and events.

Criteria's Emotify consists of two brief assessment games - Matching Faces and Emotional Ties - that measure the perceiving and understanding aspects of EI. More information on Matching Faces and Emotional Ties is provided below.



Perceiving Emotion

The ability to accurately perceive the emotion displayed by others is an important aspect of interpersonal interaction. It includes the ability to use nonverbal information such as facial expressions, body language, and tone of voice to determine specific emotions being conveyed during interactions and the authenticity of those emotions. An accurate read of the emotional state of others is a precursor for being able to respond effectively.

Matching Faces measures the ability to perceive emotions. In Matching Faces, the candidate is required to quickly identify the emotion displayed on a person's face. They need to indicate if the word they see and the emotion they perceive are a match.

There are 30 rounds with a time limit of 3 seconds per round. Matching Faces increases in difficulty as the candidate progresses. The actors used throughout the game equally represent males and females, a range of ages, and diverse cultural backgrounds.



Understanding Emotion

Emotional understanding encompasses the ability to comprehend emotional language, understand how emotions may change over time and combine to form more complex emotional states. A strong understanding of emotions is important for predicting emotional progression and the emotional outcome of different situations.

Emotional Ties measures the ability to understand emotions. In Emotional Ties, the candidate is required to read several everyday situations and predict the types of emotional consequences that may arise as a result.

There are 20 rounds with a maximum time limit of 1 minute per round. The mix of different situations presented include three different formats with one or more people involved.

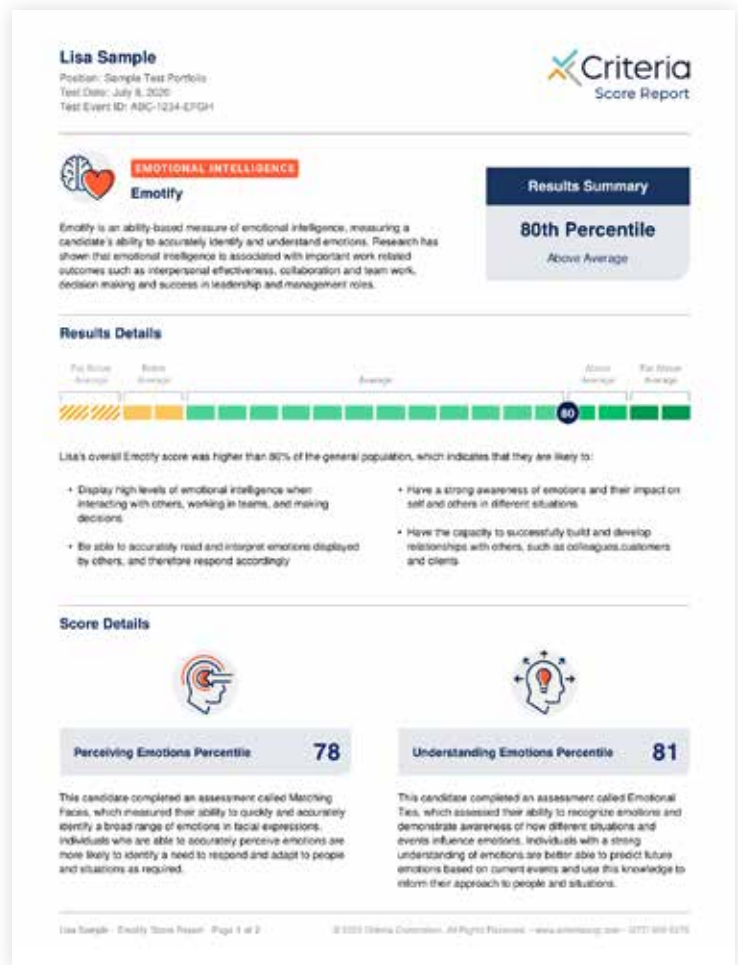


REPORTING

Candidate results are presented in a user friendly and easy to read format. The scores provided include an overall Emotional Intelligence score, as well as scores for Matching Faces and Emotional Ties.

Candidate percentile scores are placed into one of five performance classifications, ranging from Far Below Average to Far Above Average. The example below illustrates an Overall Score for a candidate based on the General Population comparison group, including dynamic interpretive text to describe the likely behaviour the candidate will display in the workplace.

The report also includes several recommended interview questions tailored to candidate scores, designed to provide further insight into candidate strengths and development areas. An example excerpt is shown below.



Interview questions for Katherine

These questions are based on Katherine's scores on Emotify. They highlight areas you may choose to investigate further if she progresses to an interview.

POSITIONING STATEMENT

As part of the recruitment process you completed an assessment called Emotify, which assessed aspects of your Emotional Intelligence. I have a few questions for you in relation to this assessment.

RECOMMENDED INTERVIEW QUESTIONS

General questions for Katherine

How did you find completing Emotify? Is there anything about your test experience that you would like to share?

Emotify measures aspects of Emotional Intelligence. What role do you think emotions play in the workplace?

In what situation do you think it would be important to identify how someone else is feeling, and understanding that emotion?

VALIDATION

Test Construction

Emotify was conceptualised and designed in-house by Criteria's Research and Development Team. A rigorous and scientifically robust research methodology was applied to all aspects of the development process, including game-based design elements, image capture and rating, item development, user testing and feedback, and psychometric validation.

The test construction and item development of Emotify was heavily guided by existing empirical research and current theories and models of Emotional Intelligence. Two large scale validation exercises were conducted to refine Emotify and initially establish its sound psychometric properties.

An overview of the steps involved in the development of Emotify is provided below.

1. Concept and Design

The Research and Development team at Criteria were guided by existing theory and research on EI in the conceptualisation and design of Emotify. Basic assessment design mock ups were produced and game mechanics were discussed and explored, with an extensive user interface review undertaken involving multiple rounds of iterations. Details such as fonts, shading, color palettes, and icons were all considered in the design phase of the project.

2. Image Capture

Professional actors and a photographer were secured to produce a bank of images for use in the assessment. Real actors displaying genuine emotions was considered critical for the validity of the tool. Around 10,000 images were captured for potential use from 21 different actors. The seven universal emotions (happiness, sadness, anger, surprise, disgust, contempt, fear) formed the basis of the emotions expressed by the actors and underpinned all item development.

3. Image Rating

An extensive image review and rating process was undertaken to determine the emotional content of the images and reduce the image bank to the best available stimuli. This process included the use of Microsoft's Cognitive Services Emotion API, a panel of Organisational Psychologists applying the Facial Action Coding System (FACS), and ratings from over 900 individuals via survey. The primary emotion and the strength of the emotion (e.g. subtle, moderate, strong) in each image was determined.

4. Item Content

The item content was then developed for each mini-game separately. For Matching Faces, this included emotional labels such as 'Happiness' being matched with specific images – some displaying happiness and some not. The initial item bank was well balanced with an even representation across the seven universal emotions from a diverse range of actors. For Emotional Ties, the item development phase included developing hundreds of short scenarios mapped to the seven universal emotions, and pairing these with a subset of images to create assessment items. All item content underwent multiple rounds of review and refinement by Psychologists before being accepted.



5. First Validation

An initial validation study was completed involving approximately 1400 participants completing Emotify along with another well-known measure of EI, the Situational Test of Emotional Understanding (STEU). The results from this initial validation indicated that Matching Faces and Emotional Ties showed strong potential in measuring EI.

6. Modifications and Redesign

Following the completion of the initial validation, a number of changes were made to Matching Faces and Emotional Ties, including:

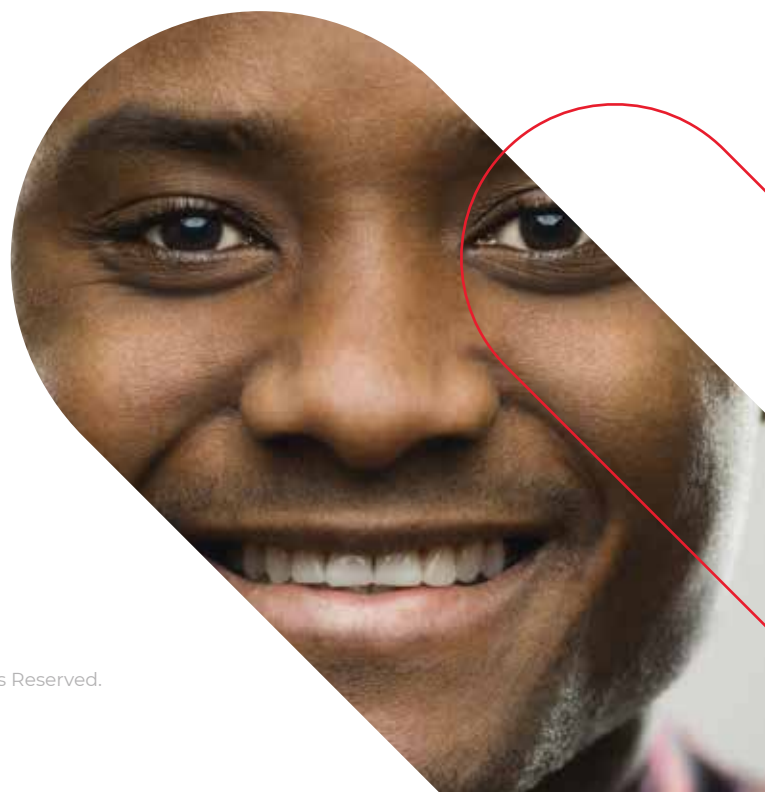
- Updated tutorial content for Matching Faces and Emotional Ties
- The restructure of Emotional Ties (split into 3 parts based on scenario type)
- The redesign of the user experience for mobile device completion. In particular, Emotional Ties was changed significantly from the original design to enhance the mobile experience.
- Round time adjustments for both mini games

Item streaming logic was also designed at this stage in the development of Emotify. Specifically, Linear on the Fly (LOFT) item streaming was implemented, ensuring a unique candidate experience each time the assessment is completed, while maintaining identical levels of difficulty to ensure candidate comparison remains fair.

The scope and scale of these changes were significant enough to warrant a second validation study prior to market launch.

7. Second Validation

A second validation study was conducted to confirm and enhance the findings from the first validation study based on the content and format revisions. Over 1600 candidates participated in this phase of the project. The findings from this validation study are summarised in the section below.



Psychometric Properties

Validation studies have demonstrated the strong psychometric properties of Emotify.

- As part of two large scale validation exercises, over 3,000 participants completed the two Emotify mini-games (Matching Faces and Emotional Ties) and the Situational Test of Emotional Understanding (STEU). Adopting a cross-validation approach to modeling, scores for Matching Faces, Emotional Ties and Emotify Overall were found to strongly correlate with STEU performance, i.e. $r = .40(.45)$, $.54(.61)$, $.57(.65)$ respectively. Note the second correlation presented here in brackets represents the corrected coefficient, accounting for unreliability of the criterion.
- For each mini-game, the metrics that combine to produce both game and overall Emotify scores each contribute in statistically unique and significant ways to predict the convergent measure (STEU). This indicates that scoring for each game is not only valid but has also been derived in a manner that takes account of multiple aspects of Emotional Intelligence.
- A test-retest reliability coefficient of $r = .77$ was calculated for Emotify. This estimate was derived from a sample of 322 participants who had completed Emotify on two separate occasions an average of two weeks apart. Participants were of diverse age and ethnicity. Males and females were equally represented within the sample while device type used, i.e. mobile or desktop, was also similarly balanced. This finding therefore demonstrates an acceptable level of reliability for this assessment.
- A highly significant correlation was demonstrated between Emotify scores and self-reported conflict at work, i.e. "I experience a lot of conflict with people at work," $r = -.19^{***}$, $p < .001$. The Case Study below has more detail on this finding.
- A highly significant correlation was demonstrated between Emotify scores and self-reported stress management, i.e. "I have a hard time making it through stressful events," $r = -.12^{***}$, $p < .001$. The Case Study below has more detail on this finding.
- Small gender differences, with women performing slightly better than men, were observed for Emotional Ties ($d = .28$) and Emotify overall ($d = .27$). This is commensurate with general research findings where similar gender differences in Emotional Intelligence are often reported.
- A non-significant correlation was found with respect to age and Emotify performance, indicating that performance on Emotify was not related to the age of participants. This was further evident when contrasting the <40 and ≥ 40 age groups, where no difference in performance was again evident. A small,

negative correlation was demonstrated with respect to age and performance on Matching Faces, $r = -.19^{**}$; $p < .01$, which incorporates a speeded aspect in its administration. Such effects however do not persist at an overall level where metrics across both games are combined and weighted when calculating a final Emotify score.

- Significant, positive correlations with an existing assessment of general cognitive ability were demonstrated for Matching Faces, Emotional Ties and overall Emotify. This finding of convergent validity is commensurate with relationships reported for other ability-based measures of Emotional Intelligence.
- Non-significant differences in performance were demonstrated when analysing scores from large, i.e. >200 , randomly allocated samples of participants completing both Matching Faces and Emotional Ties either on a mobile or desktop device. This finding of non-significance remained when analysing overall Emotify scores. Non-significant differences in all scores was also evident when comparing participants who completed Emotify either on a tablet or phone. These findings provide strong evidence for the device-agnostic nature of Emotify.

Flexible testing on any device

Emotify is device-agnostic. This means candidates can take the test on any digital device they choose, anywhere and at any time.

We've made the test secure and user-friendly so your candidates can focus on completing the test.

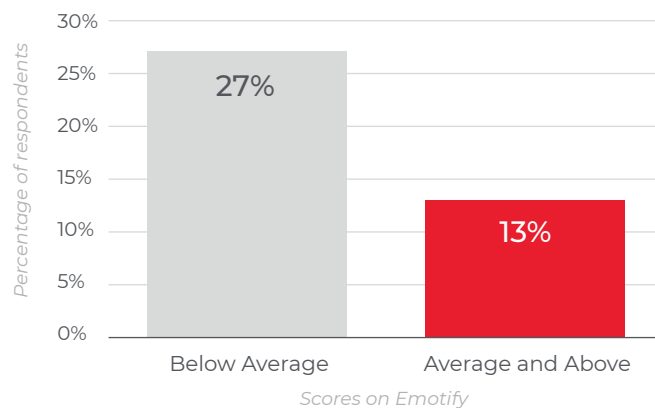


Case Study

A sample of 931 individuals completed Emotify along with self-report questions relating to stress management and conflict in the workplace.

Participants were asked to indicate the extent to which they agreed with the statement “I have a hard time making it through stressful events.” Those who scored less than 20% on Emotify were twice as likely to respond with “Agree” or “Strongly Agree” to this question, with 27% of this group responding this way, compared to 13% in the higher performing group. This result is shown graphically below.

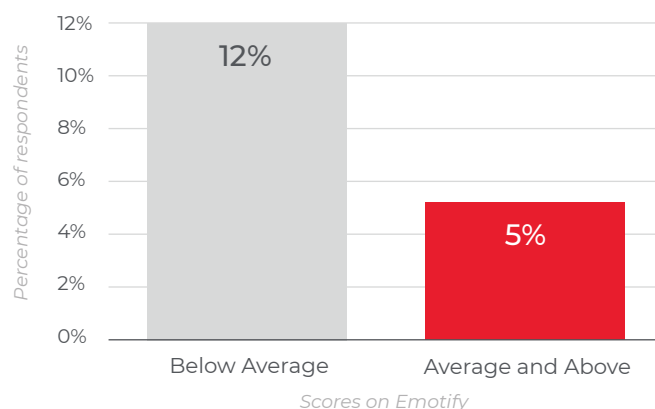
Percentage of people who agreed or strongly agreed that they have a hard time making it through stressful events



The difference between these two groups was further analysed through an effect size, with a small to moderate effect found. These findings highlight the relationship between EI as measured by Emotify and self-reported experience of stress, which has important practical workplace applications for a range of roles and industries.

Participants were also asked to indicate the extent to which they agreed with the statement “I experience a lot of conflict with people at work.” Those who scored less than 20% on Emotify were twice as likely to select “Agree” or “Strongly Agree” to this question, with 12% of this group responding this way compared to 5% in the higher performing group. This result is shown graphically below.

Percentage of people who agreed or strongly agreed that they experience a lot of conflict at work



A small to moderate effect size was found between these two groups. This finding provides support for the use of Emotify in roles requiring a high degree of interpersonal effectiveness.



Candidate Reactions

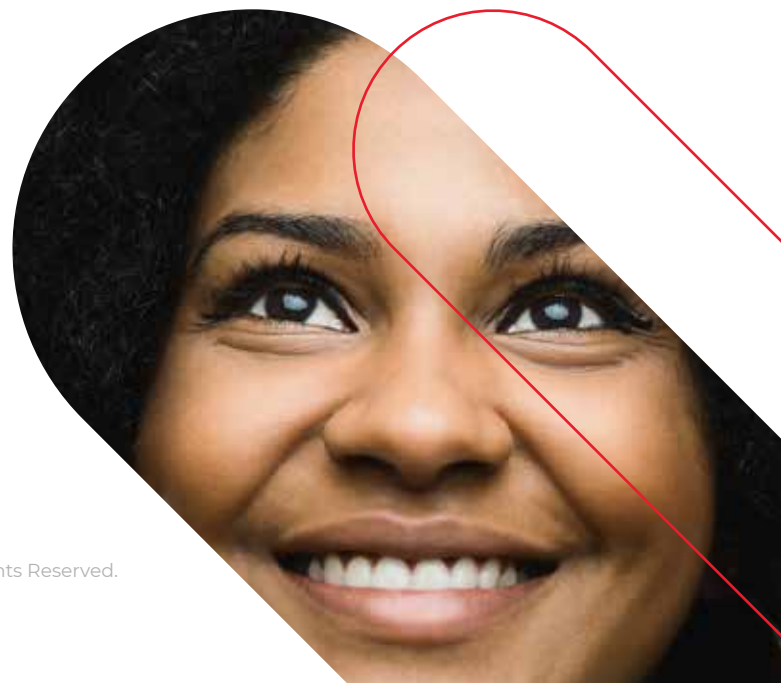
Emotify has been designed with the candidate experience as a central feature of the assessment. Throughout the design and development of Emotify, several rounds of user feedback sessions were conducted, and iterations made to enhance the experience. In addition, candidates participating in the validation processes were invited to provide feedback on their experience completing Emotify, with an overwhelmingly positive response. The feedback from approximately 1000 candidates is summarized below.

- 80% of candidates reported a positive experience completing Emotify
- 91% of candidates felt comfortable completing Emotify as part of a job application
- 71% of candidates felt Emotify was better than other employment tests they've completed
- 84% of candidates recommended employers use assessments like Emotify to assess job applicants

Candidates also commented on what they particularly liked about Emotify. Some of the recurring feedback included:

- The use of real and diverse people throughout Emotify
- The interesting everyday situations
- The clear and easy to understand nature of the assessment
- Emotify didn't feel like a test
- The clear link between the tasks in Emotify and workplace skills and abilities

The positive feedback from candidates who have completed Emotify is a strength of the assessment and reflects the engaging and innovative approach to measuring EI.





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*Fun and challenging,
I liked the visual aspect*

*It was fun and interactive and employers
are able to get a little glimpse of
candidate's Emotional Intelligence*

Novel and different

*The questions were easy to
understand and the timing is good*

I liked the real life situations

Very engaging

*Provided a greater level of
thought without feeling stressful*

*Didn't feel like a test,
therefore, I felt more relaxed*

Interactive
