

{ COGNITIVE TRAINER }

INSTRUCTION BOOKLET & USER GUIDE

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QUICK START

1 Select Game Mode

- Progressive – Difficulty increases over time, commensurate with player performance.
- Static – Complexity remains constant, however time becomes increasingly limited.
- Free Play – Focus on improving accuracy with no time constraints. Scoring is disabled.

2 Select Difficulty Level

- Novice – Minimal complexity and pressure; a good place to start.
- Intermediate – Medium complexity and a generous time allotment.
- Experienced – High complexity with less forgiving time constraints.
- Advanced – Full complexity with additional modifiers and a strict timer.
- Expert – For those who arduously seek mastery.

3 Push the Button

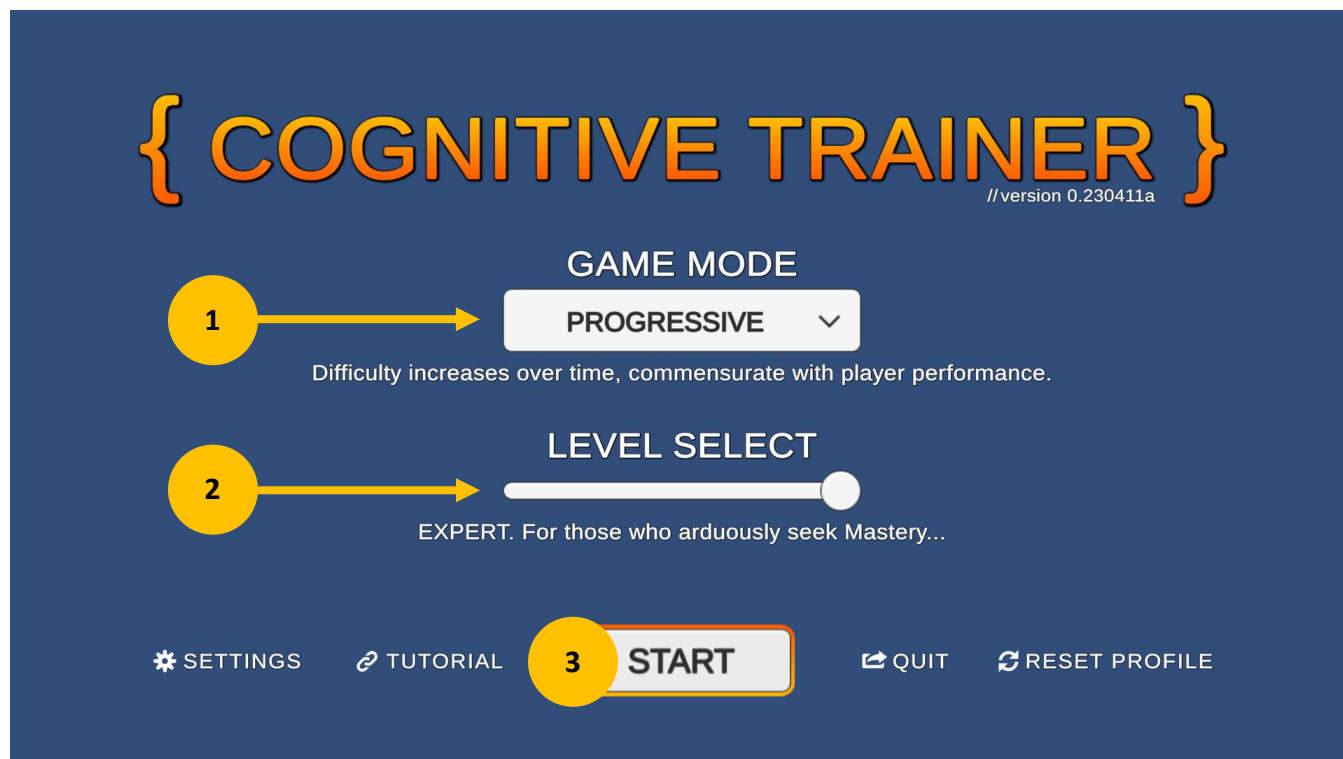


Fig. 1. Title Screen.

SETTINGS & PROFILE

1. Audio

- a. Enable Background Music (on by default).
- b. Enable Sound Effects (on by default).

2. Accessibility

- a. Auto-Size Query Text (always enabled when launched in browser).
- b. Repetitive Strain Injury Minder – Occasionally reminds the user to take a break during extended and/or intense game sessions (on by default).

3. Gameplay (Educator's Edition Pro License required for Custom Game Mode)

- a. Timer On – Enables gameplay timer.
 - i. Limit – Sets initial time limit.
- b. Time Wither – Enables a reduction of total the time allotted for each round.
 - i. Rate – The percentage of which the remaining time is eroded.
- c. Number of Tiles – The number of tiles presented to the player at one time.
- d. Tile Complexity – The amount of data each tile contains.
- e. Number of Queries – The number of questions asked to the user per round.

4. Reset Profile (from the Title Screen)

- a. Clears all user data, including past performance, high scores, and level of mastery.
- b. Does not affect user-defined options configured within the Settings menu.

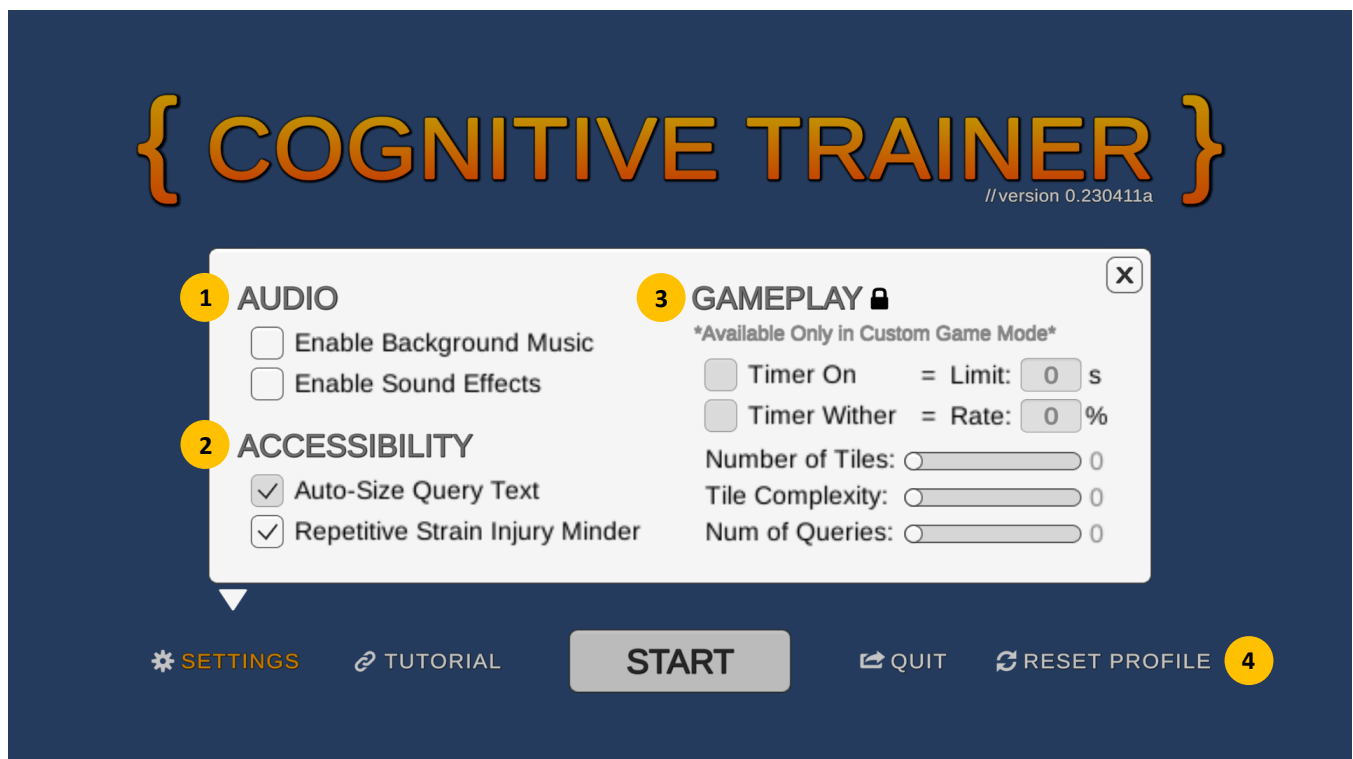


Fig. 2. Settings Menu.

GAMEPLAY FIELD

1. Timer

- Displayed as a horizontal bar below the scoring and game type header.
- When the bar reaches the center of the field, time has expired.
 - If background music is enabled, its tempo will speed up when time is critically low.
- Gain additional time by submitting the correct response to the current query.

2. Tile (Data Set)

- Each tile contains a variety of data attributes, including colors, shapes, numbers, and text, for which you as the user must evaluate in order to respond to the provided query.
- Directly below each instance, the tile's assigned ID number is displayed, however note that these assignments may not necessary be in sequentially ascending order.
- Tile anatomy is discussed in more detail within the following section (Data Types & Legend).

3. Query

- Each round, a question is asked that will require analysis of the provided tiles and their attributes. Higher difficulties may have multiple queries associated with the same data sets.

4. Response

- Type your answer to the query and submit by pressing the Enter/Return key.
 - Responses are case insensitive, but will not autocorrect spelling or white space errors.
 - If multiple queries are present, answers must be submitted together, space separated.
 - Numerical responses must be provided in word format (i.e., 9 = "nine")

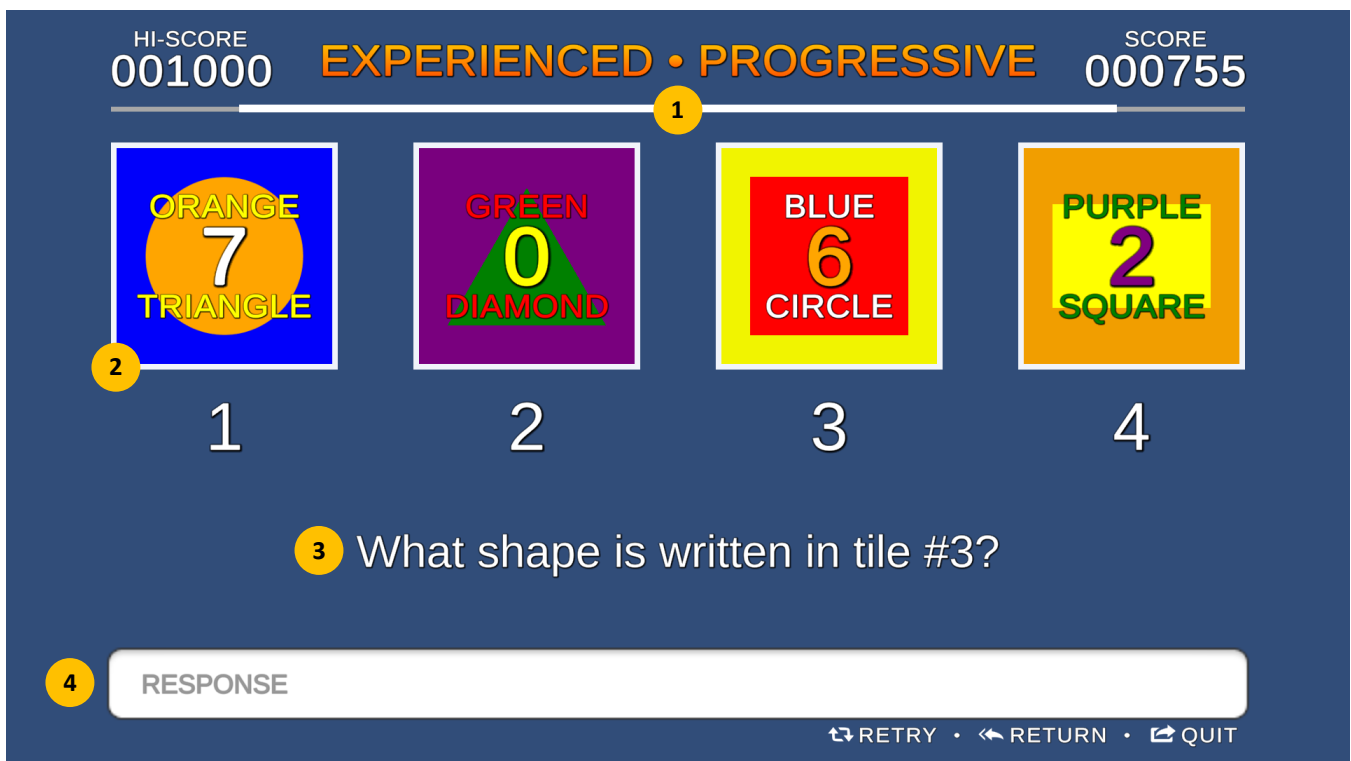


Fig. 3.a Active Gameplay Screen.

GAMEPLAY FIELD (cont.)

5. Hi-Score

- a. Displays the user's highest score achieved during normal play (default is set to 1000).

6. Score

- a. Earn points by answering queries in a timely and precise manner within the allotted time.
- b. Primary factors that influence the number of points awarded include the following:
 - i. The overall complexity and pressure of the current data set.
 - ii. The amount of time expended to submit a correct answer.

7. Current Game Mode and Difficulty Level

- a. Indicates the current game type. If playing in Progressive Mode, you may advance to a higher difficulty after demonstrating proficiency at the current complexity.
 - i. If sound effects are enabled, there will be an auditorial cue if this occurs.

8. **Retry** – Begins a new game with the same parameters, including user options, game mode, and level.

9. **Return** – Returns the to the Title Screen, forfeiting current game progress (unless in a game over state).

10. **Quit** – Ends the current game session, recalculates and displays the user's level of mastery.

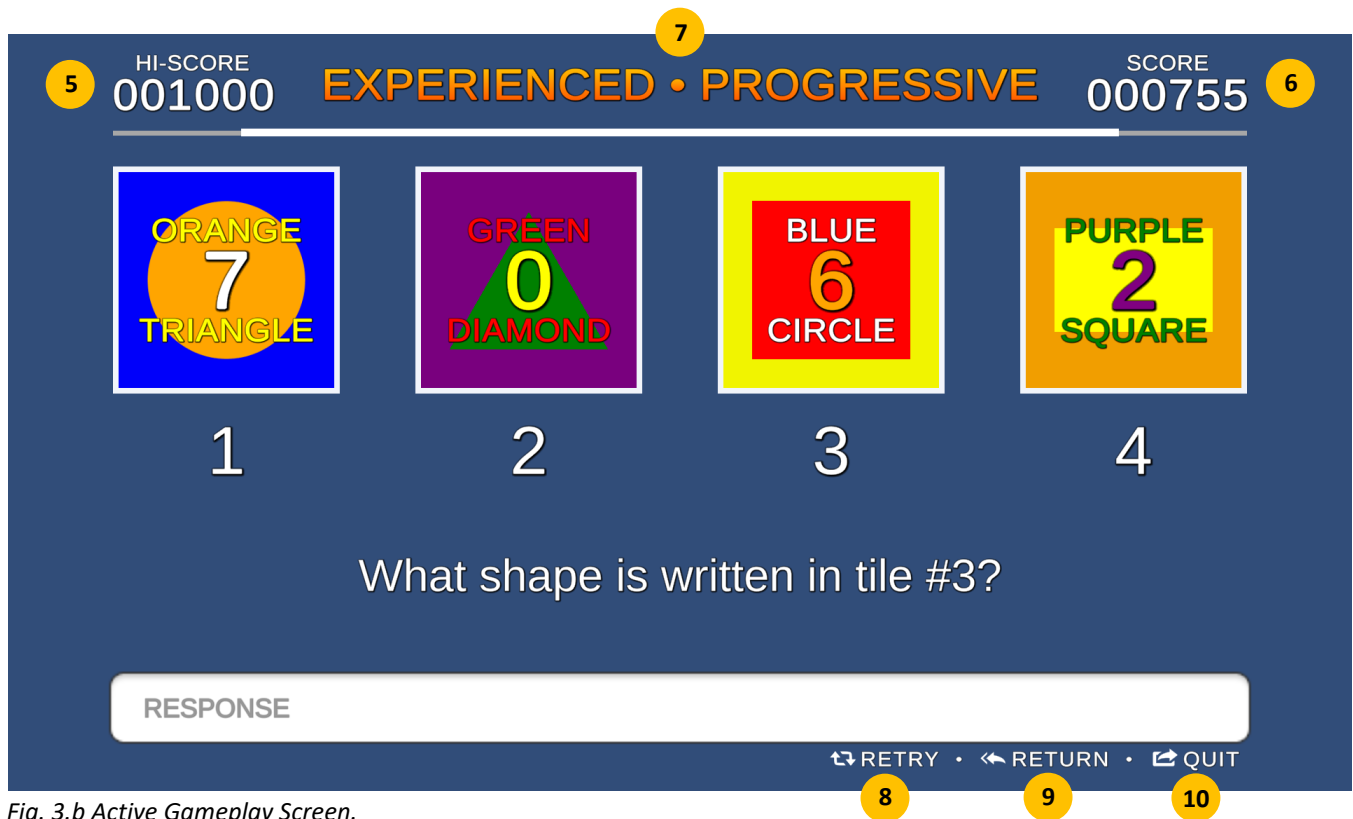


Fig. 3.b Active Gameplay Screen.

GAMEPLAY FIELD (cont.)

11. Game Over

- a. Once time has expired, the current game has reached its end state and you will no longer be able to submit responses. Note that text input is momentarily disabled while results are readied.
- b. For convenience, the correct answer to the previous query is displayed as well as an accuracy rating. Unsubmitted answers (non-responses) due to time are not factored.
- c. If you have achieved a high score, you will receive a message indicating so, accompanied by a victory fanfare and updated scoreboard. Congratulations!
- d. Should you wish to try again without having to utilize the cursor (i.e., you prefer to keep your hands orientated on the keyboard for a subsequent round), you may type and submit “y” or “yes” into the response field. Conversely, “n” or “no,” will quit the application.
 - i. Alternatively, the Retry, Return, or Quit buttons may also be clicked, as described above.

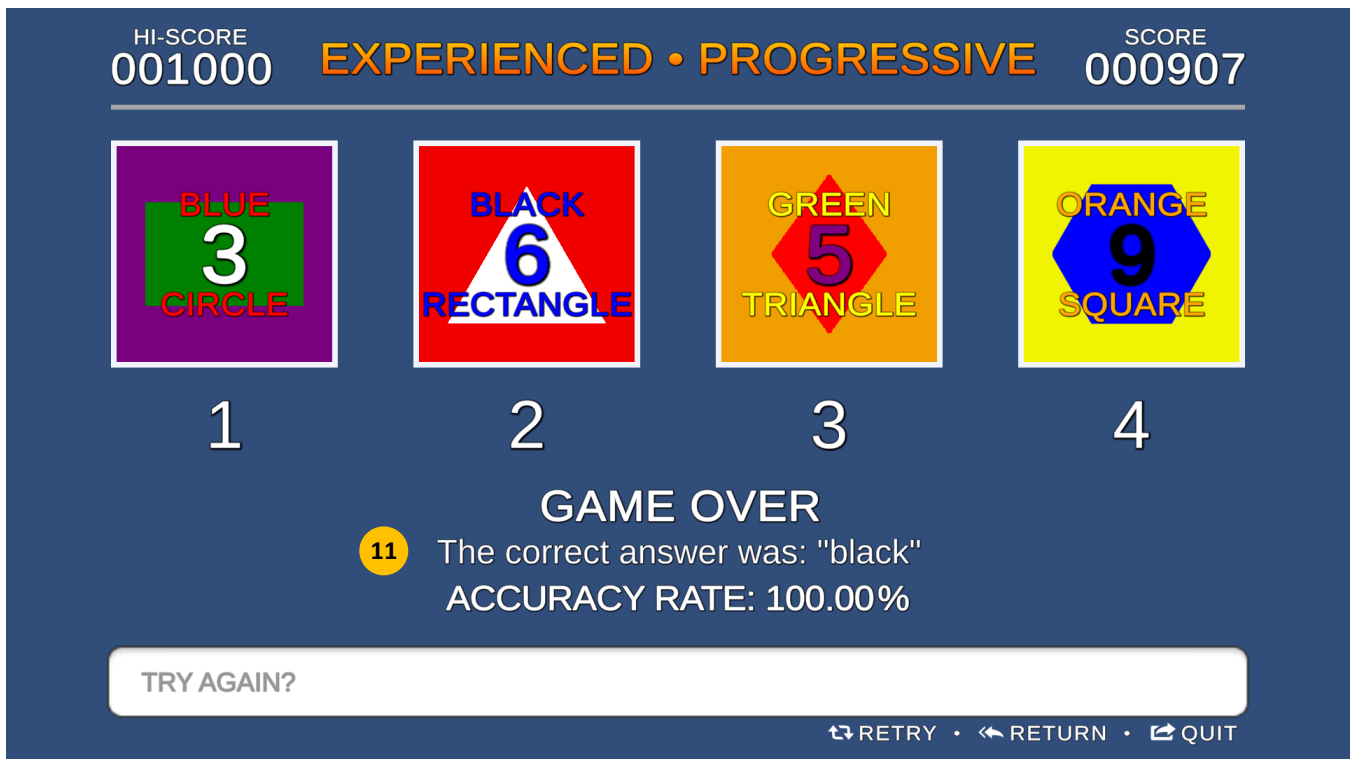


Fig. 4. Gameplay End State.

DATA TYPES & LEGEND






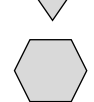
1. General

- a. Dependent upon difficulty level and/or complexity modifiers, tiles will contain 2 or more of the following data types as well as an associated attribute.
- b. All tiles on a given field will contain non-duplicating attributes. For example, if tile #1 contains a circle, no other tile will utilize this shape.
- c. Attributes indicated with an asterisk (*) only appear in Advanced and Expert difficulties.

2. Colors

	Black
	Blue
	Green
	Orange
	Purple
	Red
	Yellow
	White
	Cyan*
	Magenta*

3. Shapes

	Circle
	Rectangle
	Square
	Triangle
	Diamond*
	Hexagon*

4. Numbers

	Zero
	One
	Two
	Three
	Four
	Five
	Six
	Seven
	Eight
	Nine

5. Text

Any color, shape, or number may be represented as text. Will only appear in Experienced, Advanced, and Expert difficulties.

Table 1. Data type and attribute legend.

EXAMPLE QUERIES

Suppose an Experienced level playfield with the following data:



Fig. 5. Example playfield (Experienced difficulty).

Q: What shape appears in tile #4?

A: square

Q: What is the color of the circle?

A: blue

Q: What number appears in green?

A: seven

Q: What shape is written in tile #3?

A: triangle

Q: What color is the text of “white” and “diamond”?

A: yellow

Q: What tile contains the number “3”?

A: two

Q: What shape appears in tile #1? What is the color of the square?

A: hexagon purple

QUESTIONS?

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