

# ON THE SHOULDERS OF GIANTS

## GAME RULES

On the Shoulders of Giants is an educational game to help students in Higher Education learn tips and tricks for undertaking a successful literature review.

It is a modification of an existing board game called [Meeple Circus](#). In other words, Meeple Circus has been adapted to deliver an educational message. You will need a copy of Meeple Circus to play. These rules have been adapted from the Meeple Circus rules with the kind permission of its designer, Cédric Millet and publisher, Matagot.

This game should be actively supported by a tutor who can deliver additional knowledge and context specific to the player group during and after the game.

The game is best with 2-5 players, however players can be grouped into 2-5 teams of no more than 3 people if desired.

### ! Tutor tip

If playing with multiple people in one team, make sure each player gets a turn at balancing the components, drawing the cards, etc.

## WHAT YOU NEED TO PLAY

- One copy of [Meeple Circus](#)
- Printed and cut out "On the Shoulders of Giants" game cards.
- 6-8 dice or other similarly-sized generic game tokens
- An internet connected device to play the [game soundtrack music](#) which functions as a timer.

## CONTENTS

- A.** 1 score board
- B.** 3 scoring tiles
- C.** 1 ruler
- D.** 32 research question cards, representing specific research questions sought to be answered
- E.** 5 oval research areas, representing the overall topic of research
- F.** 5 score tokens
- G.** 6 red 1<sup>st</sup> round tiles, 10 green 2<sup>nd</sup> round tiles, and 22 blue 3<sup>rd</sup> round tiles. You will not use the blue 3<sup>rd</sup> round tiles, these will be replaced by the On the Shoulders of Giants Challenge tiles.
- H.** 12 'starting out' research sources (blue), representing sources which are useful at the start of a literature review
- I.** 13 'core' research sources (yellow), representing core readings for the research topic

- J.** 7 'cutting edge' sources (red), representing recent developments and innovation in the research area
- K.** 10 'star' sources, representing a unique research source of particular relevance to the topic
- L.** 22 accessories (planks, balls, barrels), representing a research sources which is not from academic literature (e.g. archives, policy, interviews etc.)
- M.** 10 animals (horse or elephant), representing research methodology
- N.** 1 first player token
- O.** 2 speed bonus tokens
- P.** Print-and-play cards: the research sources deck (starting out, core research sources, cutting-edge sources, wider content, and methodology)
- Q.** Print-and-play cards: the Refine and Refocus deck (only 4 cards)
- R.** Print-and-play cards: the Evaluate deck
- S.** Print-and-play cards: the Challenge deck



## GOAL OF THE GAME

Welcome to On the Shoulders of Giants! There is a world of knowledge out there – but how well can you find and use the information you need? Can you fit together the research sources you find in a way that matches your research question? Link your knowledge and score the most points to produce the best literature review you can!

## SETUP

- Place the score board in the centre of the table.

- Give each player/team a research area and place the score token of the same colour next to the score board.
- Give each player a blue starting out research source, and a yellow core research source.
- Separate the research question cards by colour, shuffle them and place them face down in the appropriate spaces next to the board. Reveal the first card of each pile.
- Shuffle the component tiles, draw the first 6, and place them face up in the appropriate space next to the board.
- Separate the 1<sup>st</sup> round, 2<sup>nd</sup> round, and 3<sup>rd</sup> round tiles by colour. Set the Meeple Circus blue 3<sup>rd</sup> round cards to one side and replace them with the On the Shoulders of Giants Challenge cards. Shuffle and place them in three stacks. Then draw as many 1<sup>st</sup> round tiles as the number of players plus one and place in the appropriate space next to the board.
- Place the ruler and speed bonus tokens near the board.
- Put all game components within reach of players, including the extra dice/generic tokens.
- Separate the research sources deck into types (starting out, core research sources, cutting-edge sources, wider content, and methodology) and place, face-up, near the components pile.
- Place the Refine and Refocus deck (face up) and the Evaluate deck (face down) near the score board.
- Stack the 3 Scoring tiles in the appropriate space next to the board in the following order, 3, 2, and 1 on top.
- Select a player at random to go first. S/he takes the first player token.

## HOW TO PLAY

In this game, you will build up your understanding of a research topic by undertaking a literature review. To do this you will balance different sorts of research source (wooden tokens) and try to match the patterns on the game cards which represents your research question. The purpose of the game is to score as highly as possible by using sources appropriately, getting close matches to your research question, and high innovation. Actually, the real purpose of the game is to learn how to do a literature review – whoever wins, you'll all learn something!

You will play in 3 rounds, the first round, the second round, and the Challenge round. You keep all your pieces between rounds. Each round has four phases:

1. Selecting sources
2. Using sources
3. Understanding sources
4. Refining research idea

## THE FIRST ROUND

### SELECTING SOURCES

*During the Selecting phase of a literature review, players are finding and selecting research sources.*

Starting with the first player and proceeding clockwise, players choose either a Component tile or a 1<sup>st</sup> round tile. Then, starting again with the first player and proceeding clockwise, players take a second tile of the type they haven't yet taken (e.g. a player who took a Component tile must then take a 1<sup>st</sup> round tile).

The players then, in turn, take a Research Sources card corresponding to each component shown on their tiles and read it out to all players. Once each card has been read out, the player may take the component from the stock and place it next to their research area.

**NOTE:** The term 'component' refers to any meeple, animal, or accessory representing a research source.

After players have all selected their components each player can choose to either receive a die (or other generic token of roughly the same size as a component) or to take an Evaluate card from the face-down Evaluate deck. The player should attempt to answer the question on the Evaluate card (with the support of the tutor if necessary) and then may swap one of their existing research source components for any other one of their choice from the stock.

#### ! Tutor tip

The lesson here is that being selective when deciding what to read takes effort but leads to better results in the long run. The die/generic token represents a research source which is not particularly useful. It can theoretically increase a score slightly by e.g. raising a red component higher, but is likely to just be a waste of space. Strategically swapping a component, on the other hand, represents putting in the effort to get the best quality research sources in the first place, and is highly likely to lead to a better overall score. Share this information with the players.

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## USING SOURCES

*During the Using phase, players assemble their resource sources to match as many of the Research Question cards as possible, as well as using each source in the right way to score points.*

Before constructing the literature review can begin, players must have all their components outside of the research area. Players may not balance components before the timer starts.

When players are ready, the tutor starts the the [game soundtrack music](#) which functions as a timer. When the music starts, all players begin using their research sources at the same time. Players do not have to use all of their research sources in their literature review. Players choose how they want to place their components as long as they follow these simple rules:

- All components must be placed inside your research area.
- Components cannot be placed on their sides except for planks and barrels.
- Components on the ground must carry at least one other component.

Components that do not follow ALL of these rules will not be scored.

The first and second players to finish their draft literature review (before the music ends) take the Speed Token (2) and the Speed Token (1) respectively.

When the music stops all players must immediately stop constructing their literature reviews.

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## UNDERSTANDING SOURCES

*Players earn points for the quality of their literature reviews based on different criteria.*

When a player earns points, he advances his score marker that many spaces on the score board. Players win points from:

- Matching research questions
- Use of research sources
- Speed bonus tokens

**NOTE:** When assessing, players may use the Scoring tiles as a reminder of what provides points.

### MATCHING RESEARCH QUESTIONS

- Players score as many points as indicated on each of the Research Question cards whose conditions are fulfilled.
- It is possible to fulfil the same card several times if at least one of the components is different.
- The same component can count for different Research Question cards.
- The depicted components must be assembled in the direction and position shown by the card.
- Meeples depicted in gray can be research sources of any colour (blue, yellow, or red) or 'star' meeples of the same shape.



*Shelley has matched 2 of the 4 research questions. She fulfilled the purple card twice and the green card once for a total of  $3 + 3 + 3 = 9$  points!*

### USE OF RESEARCH SOURCES

- Starting out sources (blue): each starting out research source that touches the ground gives you 1 point.
- Core research sources (yellow): each core research source that does NOT touch the ground gives you 1 point.
- Cutting-edge sources (red): each cutting-edge source that does NOT carry any other component gives you as many points as its height in the constructed review. Use the ruler to measure. The highest zone touched by the red meeple tells you how many points you gain.



*Matthew has made a stack to raise his cutting edge research source into the air. He scores 1 for his starting out source (blue), 1 for his core research source (yellow) on the plank (but nothing for the other as it touches the ground), nothing for the lower red meeple as it is carrying something, and 3 for the top red meeple.*

## SPEED BONUS TOKENS

- Each player in possession of a Speed Token gains the number of points indicated on it (2 or 1).

### ! Tutor tip

Use the Speed Tokens as an opportunity to talk about work-life balance and/or wellbeing.

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## REFINING RESEARCH IDEA

At the end of each round:

- Each player keeps all of her components and places them next to her research area.
- The player with the lowest score becomes the first player and takes the First Player token.
- The two players with the lowest score may choose to take a Refine and Refocus card and read it out to the group, then each may discard his chosen Research Question card and reveal the next Research Question card of the corresponding stack.

### ! Tutor tip

This step is to emphasise that research questions are likely to change throughout the iterative process of doing a literature review.

The tutor puts the remaining component tiles and 1<sup>st</sup> round tiles back in the box and draws 6 new component tiles and as many 2<sup>nd</sup> round tiles as the number of players plus one. Finally, return the first Scoring tile to the box, to show that the first round is now over.

## THE SECOND ROUND

*The second round introduces 'star' resources, representing a unique research source of particular relevance to the topic. This could be a seminal study, crucial dataset, or access to a rare collection. Tutors should contextualise this in a way meaningful for the students playing. This will allow players to construct even better literature reviews!*

**The second round is played the same as the first round with the following changes:**

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## SELECTING SOURCES

During selection, players now use the 2<sup>nd</sup> round tiles (green) that represent a 'star' resource. The 2<sup>nd</sup> round tiles are double-sided. When a player chooses a 'star' resource, he cannot decide to use the other side.

**IMPORTANT:** When a player retrieves the component corresponding to his 'star' resource, he only retrieves the corresponding 'star' component. The other components shown on the tile are only used to indicate how this resource can be used to score points.

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## UNDERSTANDING SOURCES

During scoring, players will also gain points from their 'star' resources. Each 'star' resource will earn points if it is placed the way it is depicted or explained on its tile.

At the end of the second round the tutor puts the remaining component tiles, 2<sup>nd</sup> round tiles, and 2<sup>nd</sup> round Scoring tile back in the box and draws 6 new component tiles along with as many On the Shoulders of Giants Challenge tiles as the number of players plus one.

## THE THIRD ROUND – FINAL LITERATURE REVIEW!

The final literature review involves even more clever use of research sources, as well as a further challenge!

**The third round is played as phase 1-3 of the previous round with the following changes:**

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### SELECTING SOURCES

When selecting, use the On the Shoulders of Giants Challenge tiles (blue), not the Meeple Circus blue 3<sup>rd</sup> Act tiles.

**NOTE:** some Challenge tiles make reference to cues in the music such as cymbal crashes. If you are NOT using the music from the Meeple Circus website and are instead using a 2 minute timer, replace these tiles.

#### ! Tutor tip

The aim here is not to test the students but to assist recall and active engagement with material learned in the first two rounds. Encourage team-mates (if any) to shout out the answers and if a student or team is struggling, ask other teams to help them out with suggestions.

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### USING SOURCES

The final literature review is constructed player by player, under the watchful eye of the tutor. Start with the player with the lowest score and proceed in a clockwise direction. The tutor should support players to achieve their Challenge, and encourage the other players to also chip in, if necessary.

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### UNDERSTANDING SOURCES

Scoring has the following changes in the final round:

- Speed Tokens are not used
- The score earned by 'star' resources is doubled
- Each Challenge will score points if successfully achieved.

## END OF THE GAME

After every player has constructed her literature review, the game ends!

The player with the most points is the winner. In case of a tie, the victory is shared.