



ZONC: A review game that anyone can win!

Elizabeth E. Rueschhoff

Indiana University Southeast, School of Natural Sciences, 4201 Grantline Road, New Albany, IN, 47150, USA

Abstract

Review games played in classes are often dominated by the strongest students, resulting in less engagement by other students. In this game, students are asked questions and are awarded points based on correct answers. In addition, other awards can be given, such as double your score, switch scores, or ZONC. If a student gets a ZONC, their team will lose their points. ZONC has the effect of leveling the playing field. A team may get all the answers correct, and another team may struggle, but with ZONC, all students have an equal chance of winning the game. This keeps all students motivated and engaged. Team sizes are normally 4 students per team with multiple teams to facilitate group interaction and discussion.

Keywords: Review game, accessible

Citation: Rueschhoff EE. 2024. ZONC: A review game that anyone can win! . Article 39 In: Boone E and Thuecks S, eds. *Advances in biology laboratory education*. Volume 44. Publication of the 44th Conference of the Association for Biology Laboratory Education (ABLE). DOI: <https://doi.org/10.37590/able.v44.art39>

Correspondence to: Elizabeth E. Rueschhoff, erueschh@ius.edu

INTRODUCTION

Review games are often used in classes to assess classroom learning and to allow students multiple touchpoints with class materials. There are many types of review games available. While some review games require the use of technology, such as phones or other handheld devices, ZONC requires very little technology: a white board will suffice. Normally, review games often result in those students who are most prepared or capable dominating the game. This game is different in that it strives to keep all students engaged.

Mechanics of the game

The game requires a list of questions, a whiteboard with room to write numbers that can be erased as numbers are chosen by the students, and a sheet that only the instructor sees that has the point values that corresponds to each number. Each number represents a question that will be asked. If the student group gets the right answer, they can pick a number. The instructor will consult their sheet that has the point values on it and give the points assigned to the corresponding number. I find that 40 individual point values are sufficient for a game of ZONC. The points range in values. I typically use point values of 0, 100, 500, 1000, 10000, and one million points, with several instances of each value. I also have other point values such as double your score, switch scores, ZONC and ZOT (ZONC the

other team). The point values are random and aren't tied to difficulty of the questions. You could have a more challenging question and only be awarded 100 points or be asked a less challenging question and be awarded 10,000 points. The students do not know what point values are associated with the numbers before picking one, leaving their score up to chance.

The game begins with the instructor asking the first team (Team A) a question. If Team A answers the question correctly, they pick a number, and the instructor gives the team the points from their point sheet assigned to that number. If the team picks a number that instructs them to "switch scores" they can choose a team to switch scores with. If the team picks a number with the word "ZONC" they lose all their points and if they pick a number associated with "ZOT (Zonc the other team)" they can pick a different team to lose all their points. If Team A is incorrect, they do not pick a number, and the question goes to the next team, until the question is answered correctly. The game continues until either all the questions are asked, or the numbers are all picked. Generally, I will have more questions than answers. This gives me a variety to questions to pick from as I "read the room" and adjust to the needs of the class.

Questions can vary in difficulty. For example, basic questions like "What are the three parts of a nucleotide?" might not challenge all students. However, students might be more challenged by asking "What nitrogen base is cytosine converted to when deaminated?" The instructor can control the difficulty of the game by controlling the difficulty of the questions.

While the goal of the game is to accumulate the most points, teams can also lose points by answering questions correctly if they draw a ZONC or are ZOTed by another team. This keeps the game engaging, as the team that is winning is not necessarily the team who always excels. The format of the game gives the opportunity for a variety of different students to win the game, making the game accessible to all students, rather than only those who might always win the game otherwise.

MATERIALS

This activity requires very few materials. The instructor will need a list of questions, a sheet of paper with point values assigned, and a white board or other display with numbers written on it that can be erased or checked off. The whiteboard is also used to keep track of scores.

NOTES FOR THE INSTRUCTOR

This activity is relatively easy to implement. It needs no technology. The biggest challenge I faced while playing this game with the class is that teams that were leading in points would intentionally not answer questions correctly. This was remedied by having more options for "switch scores," "ZONC," and "ZOT" to effectively level the playing field.

ACKNOWLEDGEMENTS

The author would like to thank other instructors and students, who have shared the game concept and helped with refinements to the game's rules. Also, the author would like to thank all of the students who have participated in the game and helped with successful implementation of the game in classes.

About the Authors

Beth Rueschhoff has taught at Indiana University Southeast since 2011. She enjoys teaching Introductory Biology, Molecular Biology and Plant Physiology.

Mission, Review Process & Disclaimer

The Association for Biology Laboratory Education (ABLE) was founded in 1979 to promote information exchange among university and college educators actively concerned with teaching biology in a laboratory setting. The focus of ABLE is to improve the undergraduate biology laboratory experience by promoting the development and dissemination of interesting, innovative, and reliable laboratory exercises. For more information about ABLE, please visit <https://www.ableweb.org/>.

Papers published in *Advances in Biology Laboratory Education: Peer-Reviewed Publication of the Conference of the Association for Biology Laboratory Education* are evaluated and selected by a committee prior to presentation at the conference, peer-reviewed by participants at the conference, and edited by members of the ABLE Editorial Board.

Compilation © 2024 by the Association for Biology Laboratory Education, ISSN 2769-1810. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the copyright owner. ABLE strongly encourages individuals to use the exercises in this volume in their teaching program. If this exercise is used solely at one's own institution with no intent for profit, it is excluded from the preceding copyright restriction, unless otherwise noted on the copyright notice of the individual chapter in this volume. Proper credit to this publication must be included in your laboratory outline for each use; a sample citation is given below the abstract.