

1154-R1-2477 **Alison M. Marr*** (marra@southwestern.edu), Southwestern University, 1001 E. University Ave., Georgetown, TX 78626, and **Daniela Beckelhymer** and **D'Andre Adams**. *Choose Your Own Adventure: An Analysis of Interactive Gamebooks Using Graph Theory*.

“BEWARE and WARNING! This book is different from other books. You and YOU ALONE are in charge of what happens in this story.” This is the captivating introduction to every book in the interactive novel series, Choose Your Own Adventure (CYOA). Our project uses the mathematical field of graph theory to analyze forty books from the CYOA book series for ages 9-12. We first began by drawing the digraphs of each book. Then we analyzed these digraphs by collecting structural data such as longest path length (i.e. longest story length) and number of vertices with outdegree zero (i.e. number of endings). In this paper we discuss the results of statistical analyses we used to compare books by author, year, and reader preference. We also discuss numerous errors we found in the description of certain books and the publication of others. (Received September 17, 2019)